## Community Medicine Important MCQs

## General Epidemiology

1. While investigating a point source epidemic it was found that 120 students ate five different foods (meat burgers, fried fish, steak, and rice and fruit salad. The relative risk was calculated for all those five foods. It was concluded that fish was not responsible for this epidemic. The relative risk of fish is:
a) 0.7
b) 1.2
c) 1.7
d) 3.0
e) 7.0

Key: True: a
2.In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing endometrial cancer, a cohort of 1000 women were followed for 5 years. The results were as follows:

Present Absent
A 245
B 75
C 50
D 630
$A+C=295 B+D=705 n=1000$
3. What is the incidence rate (absolute risk) of endometrial cancer among who didn't use oral contraceptives?
a) $630 /(50+630)$
d) $245 /(245+75)$
b) $75 /(245+75)$
e) Insufficient data
c) $50 /(50+630)$

Key: True: c 50/ (50 + 630)
4. In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing endometrial cancer, a cohort of 1000 women were followed for 5 years. The results were as follows:

Present Absent

B 75
C 50

D 630
$A+C=295 B+D=705 n=1000$
4. What is the incidence rate (absolute risk) of endometrial cancer among women who used oral contraceptives in person-years? If the study was carried out for five years.
a) $630 /(680 \times 5)$
b) $75 /(320 \times 5)$
c) $50 /(630 \times 5)$
d) $75 /(320+5)$
e) $245 /(320 \times 5$

Key: True: e 245 / ( $320 \times 5$ )
5. In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing endometrial cancer, a cohort of 1000 women were followed for 5 years. The results were as follows:

## Present Absent

A 245
B 75
C 50
D 630
$A+C=295 B+D=705 n=1000$
What is the relative risk in this study?
a) $[75 /(245+75)] /[50 /(50+630)]$
b) $[75 /(245+75)] /[630 /(50+630)]$
c) $[50 /(245+50)] /[630 /(75+630)]$
d) $[245 /(245+75)] /[50 /(50+630)]$
e) Insufficient data

Key: True: d [245 / (245 + 75)] / [50 / (50 + 630) ]
6. Among 10 women with cervical cancer, medical records confirm a past history of herpes simplex type II infection in eight. What is the relative risk of developing cervical cancer in women with a history of HSV type II infection?
a) $8 / 10$
b) $10 / 8$
c) $8 / 2$
d) $2 / 10$
e) $2 / 8$

Key: True: c
7. In an outbreak of cholera in a village of 2,000 population, 20 cases have occurred and 5 die Case fatality rate is:
a) $1 \%$
b) $.25 \%$
c) $5 \%$
d) $25 \%$
e) $.0025 \%$

Key: True: d
Questions \# 8-9.

The results of a study of the incidence of pulmonary tuberculosis in a village in India are given in the table below. All persons in the village are examined during two surveys made 2 years apart, and the number of new cases was used to determine the incidence rat

Category of Household at First survey
Number of Persons
Number of New cases
With culture positive case
500
10
Without culture positive case
10,000
10
8. What is the incidence of new cases per 1000 person years in households that had a culture positive case during the first survey?
a) 0.02
b) 0.01
c) 1.0
d) 10
e) 20

Key: True: d
10 new cases $=10$ cases/1000 persons years
500 persons $\times 2$ years
9. What is the incidence of new cases per 1000 person years in households that did not have a culture positive case during the first survey?
a) 0.001
b) 0.1
c) 0.5
d) 1.0
e) 5.0

Key: True: c
10 new cases $=0.5$ cases $/ 1000$ persons years
10,000 persons x 2 years
10. In a population of 1000 , measles coverage is $60 \%$, one child goes out of station and comes back with measles from whom 20 more children get measles. Secondary attack rate of measles is:
a) $0.65 \%$
b) $5 \%$
c) $6 \%$
d) $6.5 \%$
e) $7 \%$

Key: True: b
11. A village has total of 100 under-five children. The coverage with measles vaccine in this age group is $60 \%$. Following the occurrence of a measles case in a child after a visit outside, twentysix children developed measles. The secondary attack rate of measles is:
a) $25 \%$
b) $40 \%$
c) $50 \%$
d) $65 \%$
e) $66 \%$

Key: True: e
12. If an epidemiologist while investigating an epidemic makes a graph to plot distribution of cases of disease by the time of onset and gets a polymodal distribution curv The most likely disease is:
a) Salmonellosis
b) Staphylococcal food poisoning
c) Measles
e) Hepatitis A
d) Typhoid

Key: True: c
13. 10 cases of food poisoning had been reported in hospital, 2 out of these developed mild gastrointestinal symptoms, 4 developed moderate dehydration but recovered and 2 succumbed to the disease. The characteristic of the organism of food poisoning that produces the severest form of the disease is:
a) Infectivity
d) Communicability
b) Pathogenicity
e) Resistibility
c) Virulence

Key: True: c
14. Public Policies in Pakistan aim at avoiding the underlying reasons for the development of environmental and atmospheric concentration of SO2 to protect the health of peopl It?s an example of
a) Primordial
d) Rehabilitation
b) Primary
e) Screening
c) Secondary

Key: True: a
15. The number of deaths due to diarrhoea, total cases of measles, total number of accidents and the total number of drug addicts were to be reported by a researcher. The best title given to all of this data would be:
a) Mortality data
d) Addiction rate
b) Morbidity data
e) Health related data
c) Case fatality rate

Key: True: e
16. When total number of deaths due to measles is presented in relation to the total cases of measles, it is best labeled as:
a) Cause specific death rate
d) Case fatality rate
b) Incidence rate
e) Proportional mortality
c) Prevalence rate

Key: True: d
17. Japanese have a higher rate of stomach cancer and a low rate for colon carcinoma than the U.S. However third generation descendants of Japanese immigrants to U.S have rates of stomach \& colon cancer like that of U.S. This particular characteristic supports effects of:
a) Environment
d) Accidents
b) Genetics
e) Misinterpretation
c) Mutation

Key: True: a
18. Influenza pandemic occurs after every 7-10 years. This kind of disease distribution in time is known as:
a) Secular trend
d) Seasonal trend
b) Short time fluctuation
e) Endemicity
c) Cyclical trend

Key: True: c
19. If the age incidences curve of leukemia shows two peaks it is suggestive of bimodality. Bimodality usually signifies:
a) Non homogeneity
d) Accuracy
b) Cluster sampling
e) Short duration of disease
c) Large number of observations

Key: True: a
20. A doctor is required to study the incidence of silicosis in a stone cutting industry, which study design should he choose:
a) Longitudinal
d) Case reports
b) Cross-sectional
e) Case series report
c) Ecological surveys

Key: True: a
21. The health statistics department revealed that the sale of anti-Asthma drugs was more in those countries where Asthma deaths were mor This association may prove wrong when the individual based study designs are conducte This association is an example of:
a
a) Ecological fallacy
d) Temporal association
b) Berkesonian bias
e) Specific association
c) Indirect association

Key: True: a
22. A researcher wanted to study the time sequence to prove the concept of causativity, which design of study should be preferred by the researcher:
a) Longitudinal
d) Case series report
b) Cross-sectional
e) Quasi experimental
c) Case report

Key: True: a
23. Smoking leads to esophageal carcinom Coffee intake has its effect on smoking and also esophageal carcinom This factor can distort the results of the study which intends to prove an association between smoking and esophageal cancer. This effect of this factor is known as:
a) Confounding
d) Dose response relation
b) Multiple causation
e) Strength of association
c) One to one relationship

Key: True: a
24. The health authorities are launching a smoking cessation program by designing different activities for the smokers. These are very expensive but still useful as a large proportion of lung cancer will be eliminated if smoking is stoppe This proportion of lung cancer can be indicated by:
a) Relative risk
d) Attributable fraction
b) Prevalence
e) Incidence density
c) Attributable risk

Key: True: d
25. A researcher was studying maternal mortality in Rawalpindi District. He observed more deaths in women who were brought to hospital and without taking other factors into account concluded that hospital managed cases have more mortality as compared to home deliveries. This is an example of:
a) Indirect association
d) Attributable risk
b) Relative risk
e) Causal association
c) Spurious association

Key: True: c
26. Early diagnosis \& prompt treatment is focused on:
a) Disease identification
b) Host factors
c) Environmental factors
e) Behaviour modification
d) Restoration of ability

Key: True: a
27. An expert in the field of public health is required to estimate the magnitude of a health problem. Which rate would he calculate for this?
a) Incidence
d) Proportionate mortality
b) Prevalence
e) Cause specific mortality
c) Case fatality

Key: True: b
28. When the number of educated females is expressed as a percentage of total females present in a villag It is known as:
a) Proportion
d) Frequency
b) Rate
e) Cumulative frequency
c) Ratio

Key: True: a
29. The trend in mortality from tuberculosis in England showed a steady fall in years 1855-1965 but thereafter a gradual rise in the incidence of this disease was reporte This type of time trend or fluctuation in disease occurrence is termed as:
a) Epidemic trend
d) Secular trend
b) Cyclical trend
e) Pandemic trend
c) Seasonal trend

Key: True: d
30. In the mid nineteenth century, an epidemiologist suggested that cholera was caused by drinking water in which an invisible agent is present. This type of association gives:
a) Specificity
d) Consistency
b) Temporal sequence
e) Gradient
c) Biological plausibility

Key: True: c
31. The incidence of pollen allergy at Wah Cantt is 10 cases per thousand populations. The mean duration of illness is 3 months from February to April. The prevalence of pollen allergy at Wah Cantt is:
a) 10
b) 20
c) 30
d) 40
e) 50

Key: True: c
32. When a new treatment is developed that delays deaths but does not produce recovery from a chronic disease, which of the following will occur.
a) Prevalence of the disease will decrease
b) Incidence of the disease will increase
c) Prevalence of the disease will increase
d) Incidence of the disease will decrease
e) Incidence \& prevalence of the disease will decrease

Key: True: c
33. If the number of deaths from tuberculosis is expressed in relation to the total mid year population, it is:
a) Case fatality rate
b) Age specific death rate
c) Proportionate mortality rate
d) Crude death rate
e) Cause specific death rate

Key: True: e
34. In a cohort study concerning the relationship between the use of exogenous estrogens and the subsequent risk of breast cancer, a sample of 1000 pre- menopausal women were followed for 8 years. The results are presented in the table abov The absolute risk / incidence of blood cancer among women receiving estrogen therapy is:

Present Absent
A 200
B 100

C 100
D 200
$A+C=300 B+D=300 n=600$
a) 0.6
b) 0.2
c) 0.3
d) 0.4
e) 0.8

Key: True: a
35. The proportion of the disease in a population that would be eliminated if the risk factor is eliminated is determined by:
a) Relative risk
d) Odds ratio
b) Absolute risk
e) Exposure rate
c) Attributable fraction

## Key: True: c

36. A 39-year-old man who presents with a mild sore throat, fever, malaise, and headache is treated with penicillin for presumed streptococcal infection. He returns after week with hypotension, fever, rash, and abdominal pain. He responds favorably to chloramphenicol, after a diagnosis of Rocky Mountain spotted fever is made which option explains the given example?
a) Case series report
d) Cohort study
b) Case-control study
e) Case report
c) Clinical trial

Key: True: e
37. A total of 3500 patients with thyroid cancer are identified and surveyed by patient interviews regarding past exposure to radiation. Which options explains the given example?
a) Case series report
d) Cohort study
b) Case-control study
e) Case report
c) Clinical trial

Key: True: a
38. A total of 10,000 Vietnam veterans, half of whom are known by combat records to have been in areas where Agent Orange was used and half of whom are known to have been in areas where no Agent Orange was used, are asked to give a history of cancer since discharg Which option explains the given example?
a) Case series report
d) Cohort study
b) Case-control study
e) Case report
c) Clinical trial

Key: True: d
39. Patients admitted for carcinoma of the stomach are age and sex-matched, with smoking history to assess the possible association. Which option explains the given example?
a. Case series report
d. Cohort study
b. Case-control study
e. Case report
c. Clinical trial

Key: True: b
40. California highway patrol statistics revealed that more accidents occurred to blue cars than to cars of any other colour. The inference that, while driving a blue car, one is at higher risk of accident than while driving a car of another colour is:
a) Correct
b) Incorrect, because the comparison is not based on rates
c) Incorrect, because no control or comparison group is used
d) Incorrect, because no test of statistical significance has been made
e) Incorrect, because prevalence is used instead of incidence

Key: True: b
41. In a study of 500 cases of a disease and 500 controls, the suspected etiological factor is found in 400 of the cases and 100 of the controls. The absolute risk (incidenc of disease in persons with the factor is:
a) $80 \%$
d) $20 \%$
b) $40 \%$
e) Cannot be computed from data given
c) $16 \%$

Key: True: e
42. In 1945, 1,000 women were identified who worked in a factory painting radium dials on watches. The incidence of bone cancer in these women up to 1975 was compared to that of 1,000 women who worked as telephone operators in 1945. Twenty of the radium dial workers and four of the telephone operators developed bone cancer between 1945 and 1975. The relative risk of developing bone cancer for radium dial workers is:
a) 2
d) 8
b) 4
c) 5
e) cannot be computed from the data given

Key: True: c
43. Prophylactic administration of vitamin K in breast fed babies is an example of:
a) Health Promotion
c) Specific protection
b) Treatment
d) Rehabilitation
e) Primordial prevention

Key: True: c
44. In an epidemiological study the incidence of disease in females is more than that of males but the prevalence is equal in both. It indicates:
a) Case fatality is more in female
b) Mortality in male is higher
c) Disease is of less duration in males
d) Females harbour disease for longer duration
e) Males harbour disease for longer duration

Key: True: a
45. Bhopal gas tragedy is an example of:
a) Slow epidemic
d) Propagated epidemic
b) Continuous epidemic
c) Point source epidemic
e) An accident which did not warrant an emergency

Key: True: c
46. Residents of three villages with three different types of water supply were asked to participate in a study to identify cholera carriers because several cholera deaths had occurred in the recent past. Virtually everyone was present at the time of examination. The proportion of carriers in each village was computed and compare This study is a:
a
a) . Cross-sectional study
d) Non-concurrent cohort study
b) Case-control study
e) Retrospective cohort study
c) Concurrent cohort study

Key: True: a
47. In a village of 1 lakh population, among 20,000 exposed to smoking, 200 developed cancer, and among 40,000people unexposed, 40 developed cancer. The relative risk of smoking in the development of cancer is:
a) 20
b) 10
c) 5
d) 15
e) 25

Key: True: b
48. In a population of 1000 , measles coverage is $60 \%$, one child goes out of station and comes back with measles from whom 26 more children get the measles. The secondary attack rate is:
a) 6.5
b) 65
c) 7.5
d) 0.65
e) 7.0

Key: True: a
49. To compare the death rate of India with the death rate of Pakistan, the most appropriate measure is a comparison between:
a) Age specific mortality rates
d) Standardized mortality rates
b) Crude death rates
e) Life expectancy
c) Maternal mortality rates

Key: True: d
50. About 2500 deaths were reported in road side accidents during the year 2006 in Pakistan. If the total number of deaths due to accidents is expressed against the mid-year population of Pakistan in year 2006 this will give:
a) Crude death rate
d) Case fatality rate
b) Age specific death rate
e) Proportional mortality rate
c) Cause specific death rate

Key: True: c
51. In a universe comprising of 1500 children less than 5 years of age, 75 children with severe malnutrition were foun If 75 new cases of severe malnutrition were registered over a period of one year, the incidence rate for severe malnutrition during the same year is:
a) $50 / 1000$
b) $53 / 1000$
c) $55 / 1000$
d) $60 / 100$
e) $63 / 1000$

Key: True: b
52. Every year during the winter season the hospital admissions are more for pneumonia cases. This year also about 358 children with pneumonia were admitted in the Pediatric department of POF Hospital between the months of Jan - Mar 2007. This increased frequency of respiratory infections during winter months is an example of:
a) Epidemic trend
d) Secular trend
b) Cyclical trend
e) Pandemic trend
c) Seasonal trend

Key: True: c
53. Prevalence measures the burden of disease in a population inclusive of old $\&$ new cases. Prevalence of a disease can be obtained from:
a) Quasi - experimental study
d) Cohort study
b) Cross - sectional study
e) Intervention study
c) Case - control study

Key: True: b
54. A 55 years old hypertensive patient was admitted in the Medical Ward with cerebral strok After treatment he recovered but was unable to move his right lower lim He was advised physiotherapy. This type of assistance is:
a) Health promotion
d) Disability limitation
b) Specific protection
e) Rehabilitation
c) Prompt treatment

Key: True: e
55. According to a study conducted by WHO the incidence of polio in Sindh province having a total population of 20 million was 1 during the year 2007, which type of study was this:
a) Case report
d) Cohort
b) Cross sectional
e) Ecological
c) Case control

Key: True: d
56. An epidemiologist is assigned to conduct a study on 5000 people having hyperlipidemia and those having normal lipid profil He has to keep track of all the participants to observe the development of stroke in these patients to confirm that hyperlipidemia increases the risk of strok This study is:
a) Retrospective cohort study
d) Cross - sectional study
b) Retrospective study
e) Case - series
c) Prospective study

Key: True: c
57. To compare the death rate of Nepal with the death rate of Pakistan, the most appropriate measure is a comparison between:
a) Age specific mortality rates
c) Maternal mortality rates
b) Crude death rates
d) Standardized mortality rates
e) Life expectancy

Key: True: d
58. A 40 years old man of 75 kg came to a physician for his routine checkup. His serum cholesterol was found to be $230 \mathrm{mg} / \mathrm{dL}$ and he was diagnosed as hypertensive. The risk factor of this particular condition is classified as:
a) Physical
d) Nutritive
b) Chemical
e) Mechanical
c) Biological

Key: True: b
59. Acute hemorrhagic conjunctivitis affected a large proportion of population over a wide geographic area in 1971 and 1981. This spread of disease is:
a) Epidemic
d) Endemic
b) Sporadic
e) Opportunistic
c) Pandemic

Key: True: c
60. A patient came in emergency with signs of dehydration and severe diarrhe An Intra venous infusion was given to correct electrolytes and fluid levels. He was discharged after 2 days. About 2 months later the patient came back with signs of jaundice and Hepatitis B surface antigen was positiv He did not give history of any event which could have led to this diseas This hepatitis infection may be labeled as:
a) Sub clinical
d) Cross infection
b) Idiopathic
e) latrogenic
c) Opportunistic

Key: True: e
61. A cross-sectional study was conducted at Wah Medical College in the year 2006 to measure the period prevalence of smokers among 105 students. Out of them 5 were already smokers and 15 started during 2006, period prevalence of 2006 is:
a) $22 \%$
b) $19 \%$
c) $15 \%$
d) $11 \%$
e) $10 \%$

Key: True: b
62. In a village of population $10,000,250$ cases of Hepatitis B were reported in the month of July. The point prevalence of Hepatitis B per thousand populations is:
a) 20
b) 25
c) 30
d) 50
e) 100

Key: True: b
63. A household survey of 10 families was conducted by students of 4 th year MBBS, Wah Medical College In the data they collected, the ages of heads of families were: $32,34,35,36,36,42,44$, 46,48 , and 52 . The mean age of heads of families is
a) 36
b) 38.5
c) 40
d) 40.5
e) 42

Key: True: d
64. A woman brings her child to the hospital for mongolism. The possible agent of the disease that comes in your mind is?
a) Bacteria
d) Hormonal factor
b) Virus
e) Chromosomal factor
c) Nutritional factor

Key: True: e
65. A child of three years comes with complaints of night blindness. On examination conjunctiva is dry and corneal haziness is also seen. There is no history of any other disease or injury. The likely agent type is:
a) Physical
d) Hormonal
b) Chemical
e) Immunological
c) Nutritional

Key: True: c
66. A man brought his child with complaints of fever, diarrhea and abdominal pain. He gave history of living in an unhygienic small house around a factory area where his son had many friends. He had three more children who also had same complaints off and on. Which environment is likely to have resulted in this condition?
a) Physical
d) Psychological
b) Chemical
e) Occupational
c) Social

Key: True: a
67. A new drug was introduced in some of patients to assess its usefulness compared with the old on patients nor did clinicians who evaluated patients for effect under consideration in this clinical trial know individual treatment assignments. This method of assignment is known as:
a) Single blinding
d) Randomization
b) Double blinding
e) Stratification
c) Triple blinding

Key: True: b
68. 10 cases of food poisoning had been reported in a hospital, 2 out of these developed mild gastrointestinal symptoms, 4 developed moderate dehydration but recovered and 2 succumbed to the disease. The characteristic of the organism of food poisoning that produces the severest form of the disease is:
a) Infectivity
d) Communicability
b) Pathogenicity
e) Resistibility
c) Virulence

Key: True: c
69. The trend in mortality from tuberculosis in England showed a steady fall in years 1855 - 1965 but thereafter a gradual rise in the incidence of this disease was reporte This type of time trend or fluctuation in disease occurrence is termed as:
a) Epidemic trend
d) Secular trend
b) Cyclical trend
e) Pandemic trend
c) Seasonal trend

Key: True: d
70. An outbreak of brucellosis in cattle is reported, threatening the health of human population. This outbreak is:
a) Epizootic
d) Exotic
b) Epornithic
e) Epidemic
c) Enzootic

Key: True: a
71. A survey report in 1960 concluded that there was an increase in asthma deaths with the increased use of pressurized aerosol bronchodilators; although the deaths were more because of the severity of disease. This association is:
a) Spurious
d) Consistency
b) Temporal
e) Coherence
c) Indirect

Key: True: a
72. In a coal mine the expected deaths of coal worker were 7 while the deaths that really occurred were 9 . The standardized mortality ratio for coal workers is:
a) 100
b) 109
c) 11
d) $5+$
e) 129
f) 130

Key: True: d
73. At Lahore Grammar School a student of class II developed mumps. He was isolated from other children till swelling subsided and his brother of class IV who looked apparently healthy was also advised to be away from school for about a fortnight. His brother's type of carrier state is most likely to be:
a) Incubatory
d) Temporary
b) Healthy
e) Chronic
c) Convalescent

Key: True: a
74. In a colony located near an industrial area 50 people died due to asphyxia and many developed difficulty in breathing and were hospitalized within 24 hours. The cause was the leakage of carbon monoxide from a nearby chemical plant. The distribution of cases in time is suggestive of:
a) Propagated epidemic
b) Slow epidemic
d) Common source - continuous exposure
c) Common source - single exposure
e) Pandemic

Key: True: c
75. Cement industry is suspected for more deaths among its workers. So the industrialist gets worried and wants to assess whether more deaths are likely in these workers or not. The measure that predicts the mortality in this industrial group is:
a) Age specific death rate
d) Proportionate mortality
b) Standardized mortality ratio
e) Case fatality rate
c) Cause specific death rate

Key: True: b
76. The annual report of POF Hospital for the year 2006 shows 200 cases of Myocardial Infarction, 35 cases of Cholecystitis, 105 cases of Pneumonia and 350 cases of Acute Gastroenteritis. The result of this report cannot be generalized on the total population of Wah on account of:
a) Confounding bias
d) Berkesonian bias
b) Memory bias
e) Interviewer's bias
c) Selection bias

Key: True: d
77. Increased number of Malaria cases was reported in the time intervals between August to October and March to April. There are 2 different periods in a year, where increased malaria transmission is reported. Such an occurrence of malaria cases in time will give a distribution which is:
a) Unimodal
d) Endemic
b) Sporadic
e) Multimodal
c) Bimodal

Key: True: c
78. .In the medical OPD of teaching hospital of Wah Medical College, Wah Cantt, diastolic blood pressures of 10 patients were as follows:
$80,75,81,79,71,95,75,77,84 \& 90$. The mean of this data is:
a) 80
b) 81
c) 82
d) 83
e) 84

Key: True: b
79. In a poor community, there is high prevalence of acute diarrhea cases. The best method for preventing this health problem in the long run is:
a) Anti-diarrheal drugs.
b) Immunization against cholera and typhoid
c) Provision of sanitary latrine
d) Use of boiled water.
e) Living in fly proof zone

Key: True: c
80. In a sample of 49 individuals, the mean total leukocyte count is found to be $7600 \mathrm{cells} / \mathrm{mm} 3$, If total leukocyte count follows a normal distribution curve, the $50 \%$ of the individuals will have which of the following values:
a) Between 6200 and 9000
d) Below 7600
b) Between 7400 and 7800
e) Above 9000
c) Below 6200 or Above 9000

Key True: d
81. In a sample of 49 individuals, the mean total leukocyte count is found to be 7600 cells $/ \mathrm{mm} 3$ and standard deviation of 1400 /mm3, a randomly selected individual will have total leukocyte count lower than 4800 cell /mm3
$1 \%$ of the Time
a) $2.5 \%$ of the Time
b) $5 \%$ of the Time
c) $10 \%$ of the Time
d) $16.5 \%$ of the Time

Key True: b
82. Higher crude annual mortality rate in a developing country as compared to a developed country is mostly due to one of the following reasons:
a) An incorrect record keeping
d) More stressful life style
b) A younger age distribution
c) An inaccurate census of the population.
e) Greater exposure to occupational hazards.

Key True: b
83. Birth rates of a population of infants at 40 weeks gestational age are approximately normally distributed, with a mean of 3000 grams. Roughly $68 \%$ of such infants weigh between 2500 and 3500 at birth. If a sample of 100 infants was studied, the standard error would be
a) 50
d) 500
b) 100
e) None of the above
c) 250

Key: True: a
84. In 1993 Burkina Faso had Gross reproductive rate of 3.5 while United Kingdom was only 0.86 that means if 1993 Fertility levels were to continue, which one of the following options will be correct.
a) The Net Reproductive Rate of Burkina Faso would definitely be more than 3.5
b) In United Kingdom, a woman would produce more than one daughter on average during her life time
c) In Burkina Faso, a woman would produce 3.5 daughters on average through her life time
d) The Net Reproductive Rate of UK will be more than on
e) The Net Reproductive Rate of Burkina Faso would be equal to Gross Reproductive Rate of the country

Key: True: c
85. The estimate of the average number of additional years a person could expect to live if the age specific death rates for a given year prevail for the rest of his life, is best expressed by:
a) Survival index
d) Crude death rate
b) Probability of dying
e) Age specific death rate
c) Life expectancy

Key: True: c
86. A patient who has come from India, reports to a health facility with generalized aches and pain and rash on the body excluding palms and soles. The most likely diagnosis is:

Scarlet fever
a) Trypanosomniasis
b) Malaria
c) Dengue
d) Yellow Fever

Key: True: d
87. In a medical journal report, the observed mortality of smokers and nonsmokers for laryngeal squamous cell carcinoma was reported to be significant at $p<0.05$. Such a statement means that
a) The investigator is rejecting the null hypothesis even though the results could have occurred purely by chance a maximum of 5 times out of 100 .
b) There is a difference between the mortality rates of smokers and nonsmokers $5 \%$ of the time
c) The null hypothesis claims that there is a difference between the mortality rates of smokers and nonsmokers.
d) A causal relationship between smoking and mortality may be established through this study
e) There is insufficient data, as the total number of smokers and nonsmokers were not given.

Key: True: a
88. In study carried out in the hospital ward, every 10th admitted patient was included in the sample, which sampling procedure is this:
a) Random sampling
d) Convenient sampling
b) Stratified sampling
e) Systematic sampling
c) Quota sampling

Key: True: e
89. Three groups of subjects were followed over the course of five years to compare treatments for sideroblastic anemia. The most appropriate statistical analysis to determine the quantitative serologic differences resulting from these treatments would be a (n)
a) Regression analysis
d) Chi-square test
b) F test (ANOV
e) T test
c) Correlation analysis

Key: True: b
90.

Breast Cancer
Present Absent
A 300

B 200

C 100

D 400
$A+C=400 B+D=600 n=1000$

In a cohort study concerning the relationship between the use of exogenous estrogens and the subsequent risk of breast cancer, a sample of 1000 premenopausal women were followed for 8 years. The results are presented in the table above. The absolute risk of blood cancer among women receiving estrogen therapy is
a) 0.2
b) 0.3
c) 0.4
d) 0.6
e) 0.8

Key: True: d
91. In a cohort study concerning the relationship between the use of exogenous estrogens and the subsequent risk of breast cancer, a sample of 1000 premenopausal women were followed
for 8 years. The results are presented in the table above. The absolute risk of breast cancer among women who did not receive estrogen therapy is
a) 0.05
b) 0.2
c) 0.4
d) 0.6
e) 0.8

Key: True: b
92. In a cohort study concerning the relationship between the use of exogenous estrogens and the subsequent risk of breast cancer, a sample of 1000 premenopausal women were followed for 8 years. The results are presented in the table above. The relative risk associated with estrogen therapy in this study is
a) 0.25
b) 0.33
c) 0.5
d) 2
e) 3

Key: True: e
93. Following a large group of cigarette smokers for a period of 10 years to determine the occurrence of chronic obstructive pulmonary disease (COP, coronary heart disease, and various forms of lung cancer would be an example of
a) Randomized clinical trial
d) Cohort study
b) Cross-sectional study
e) Case-control study
c) Prevalence study

Key: True: d
94. A nutritional research team followed serum levels of vitamin B12 and folic acid in 125 children for five years to determine the association between cyanocobalamin deficiency and the subsequent risk of developing megaloblastic anemia. The results were as follows:

VITAMIN B12 LEVELS
Mean
262 pg/mL
Median
$228 \mathrm{pg} / \mathrm{mL}$
Mode

From the data, it can be concluded that this distribution is
a) Normal
d) Skewed toward the left
b) Positively skewed
e) Unable to be identified
c) Negatively skewed

Key: True: b
95. If, in one of the groups of premature infants, the maximum value for hexosaminidase A was substituted with a much higher value, which of the given values remains unchanged:
a) Variance
d) Median
b) Range
e) Mean
c) Standard deviation

Key: True: d
96. In a cohort study involving the relationship between HIV status and the subsequent risk of developing pneumocystis carinii pneumonia, 50 HIV-positive volunteers were followed for 6 months: 100 for 1 year, 100 for 3 years, and 200 for 5 years. The number of person-years of observation in this study was
a) 9.5
b) 1425
c) Unable to be determined for different periods
d) Unable to be determined without a mortality rate
e) Unable to be determined without an incidence rate

Key: True: b
97. The smoking history of pregnant women is taken in the antenatal period and correlated with the birth weight at the time of delivery. To find an association between them would be an example of:
a) Clinical trial
d) Prospective study
b) Nested cohort study
e) Cross sectional study
c) Retrospective study

Key: True: d
98. In a study of 500 cases of a disease and 500 controls, the suspected etiological factor is found in 400 of the cases and 100 of the controls. The absolute risk (incidence of disease in persons with the factor is:
a) $80 \%$
d) $20 \%$
b) $40 \%$
e) Cannot be computed from data given
c) $16 \%$

Key: True: e
99. Prophylactic administration of vitamin $K$ in breast fed babies is an example of:
a) Health Promotion
d) Rehabilitation
b) Treatment
e) Primordial
c) Specific protection

Key: True: c
100. In a bulk of hundred children out of whom 28 are immunized 2 of them get measles simultaneously. Subsequently14 get measles. Assuming the efficacy of the vaccine to be $100 \%$, what is the secondary attack rate?
a) $5 \%$
b) $10 \%$
c) $20 \%$
d) $21.5 \%$
e) $19.4 \%$

Key: True: c
101. A village has a total of 100 under-five children. The coverage with measles vaccine in this age group is $60 \%$ (assuming the efficacy of vaccine to be 100\%). Following the occurrence of a measles case in a child after a visit outside, twenty- six children developed measles. The secondary attack rate of measles is:
a) $25 \%$
b) $40 \%$
c) $50 \%$
d) $65 \%$
e) $66 \%$

Key: True: e
102. In an epidemiological study the incidence of disease in females is more than that of males but the prevalence is equal in both. It indicates:
a) Case fatality is more in female
b) Mortality in male is higher
c) Disease is of less duration in males
d) Females harbour disease for longer duration
e) Males harbour disease for longer duration

Key: True: a
103. Which one of the following is the Odds ratio, calculated from the given data?

## Diseased Un-diseased

Positive 3020

Negative 2030
a) 0.44
b) 1.5
c) 0.8
d) 2.25
e) 2.00

Key: True: d
104. A total of 300 newly diagnosed patients with laryngeal cancer are allocated to treatment with either surgical excision alone or surgical excision plus radiation treatment. What is the study design?
a) Case series report
d) Cohort study
b) Case-control study
e) Case report
c) Clinical trial

Key: True: c
105. An analysis of the race of patients who visit an emergency room reveals that $40 \%$ are white, $25 \%$ are black, $20 \%$ are Native American, and $15 \%$ are Asian. These data would best be depicted graphically with a
a) Venn diagram
d) Histogram
b) Cumulative frequency graph
e) Pie chart
c) Normal curve

Key: True: e
106. A study was conducted in America to find out the proportion of blacks and white Americans in California. This variable chosen is:
a) Nominal
d) Discreet numerical
b) Ordinal
e) Dichotomous
c) Continuous

Key: True: e
107. A public health physician wants to study the load of hypertension in Rawalpindi district to establish special screening \& treatment services in the mentioned are which design is more useful for this?
a) Cross sectional
d) Case control
b) Case series
e) Experimental
c) Cohort

Key: True: a
108. Japan has a high rate of stomach carcinoma and a low rate of colon carcinoma than the U.S. Which study would you suggest to prove or support the environmental effect on the incidence of these cancers?
a) Migrant studies
d) Case reports
b) Case control
e) Mortality survey
c) Incidence

Key: True: a
109. To give the relevant importance to hypertension control in a health service a researcher wants to study the prevalence of hypertension. He chose a cohort study. The design to assess prevalence is?
a) Inappropriate
d) Feasible
b) Suitable
e) Expensive
c) Quick

Key: True: a
a) 110. A researcher wants to study natural history of silicosis in a population of industrial workers.
b) Which design is most useful? e) Case control
c) Cross sectional
f) Incidence
d) Case report
g) Ecological survey

Key: True: d
111. If a researcher wants to study precedence relationship between the exposure and effect, which design should he prefer?
a) Descriptive survey
c) Case series
b) Ecological survey
d) Cross sectional
e) Cohort

Key: True: e
112. Smokers have risk of lung cancer four times more than non-smokers. If smoking indicates causal association this characteristic gives:
a) Specificity
d) Consistency
b) Strength of association
e) Temporal sequence
c) Coherence

Key: b
113. The incidence of gonorrhoea is continuously increasing in a particular locality. An investigator reveals that mostly sex workers are living there. This epidemic may be classified as:
a) Common source single exposure
c) Propagated epidemic
b) Common source continuous
d) Slow epidemic
exposure
e) Modern epidemic

Key: b

## IMMUNOLOGY

1. Most important reason for recommending oral polio vaccine in the polio eradication campaign despite availability of a safe injectable vaccine that, it:
a) Provides $90 \%$ immunity in one dose
c) Has been donated by WHO
b) Does not interfere with vertical
d) Provides herd immunity immunity
e) Has less side effects

Key: True: d
2. A 5 year old child comes to the immunization centre without BCG scar on his arm; what would you prefer?
a) Give BCG vaccine
d) Chemoprophylaxis
b) Perform mantoux if positive then give BCG
e) Perform mantoux if negative then given BCG
c) No need of BCG

Key: True: e
3. A woman reports for vaccination against tetanus only 25 days before delivery; she has not received the first dose what will you do?
a) Give anti tetanus immunoglobulin
b) Give two doses of tetanus toxoid with 2 weeks interval
c) Advise appropriate antibiotic course during delivery
d) Give one dose of tetanus toxoid and advice the second dose after delivery
e) Advise passive immunization after delivery

Key: True: d
4. A woman in the seventh month of pregnancy reports to you in the antenatal clinic for the first time. The recommended immunization is by:
a) Tetanus toxoid
d) Pneumococcal vaccine
b) Hepatitis B vaccine
e) Tetanus immunoglobulin
c) Rubella vaccine

Key: True: a
5. A doctor was attending a patient suffering from Hepatitis $B$; he accidentally got a prick from a contaminated syringe for maximum preventive use of Hepatitis B Immunoglobulin (HBIG), it is given as:
a) $0.5 \mathrm{ml} / \mathrm{kg}$ body weight within 2 hours
b) $0.5 \mathrm{ml} / \mathrm{kg}$ body weight within 24 hours
c) $0.06 \mathrm{ml} / \mathrm{kg}$ body weight within 3 days of exposure \& repeating after one month
d) $0.06 \mathrm{ml} / \mathrm{kg}$ body weight preferably within 3 days
e) $0.05 \mathrm{ml} / \mathrm{kg}$ body weight within one month \& repeating after 6 months

Key: True: c
6. A mother brought her six weeks old child to an EPI centre for routine immunization. She was enquired about history of Epilepsy in the family and febrile fits. The doctor took this history to avoid complication with:
a) Diphtheria toxoid
d) Pertussis vaccine
b) Tetanus toxoid
e) OPV
c) Hepatitis B vaccine

Key: True: d
7. A conference is being held for prevention of haemorrhagic fever in our country. The people from South Africa are also invite your opinion as a health expert is sought regarding transmission of prevalent infection in South Africa to Pakistan. The infection that you should be most concerned about is.
a) Dengue fever
d) Congo fever
b) Typhus
e) Yellow fever
c) Hay fever

Key: True: e
8. An M.S student of Wah Medical College got an accidental prick while drawing blood of hepatitis B positive patient. He had completed his course of immunization against hepatitis B last year. What would you recommend for him?
a) Booster dose of HB Vaccine
b) Single dose of passive immunization
d) Two doses of immunoglobulins 30 days a part
c) Both active and passive
e) Nothing required immunization

Key: True: d
9. A forty years old guard of forestry presented in emergency with complaint of dog bite on his left leg. On examination a deep transdermal wound was found. He gave history of completing the course of immunization against rabies last year. His serum antibody titre was $>0.5 \mathrm{IU} / \mathrm{ml}$ of blood. What would you advise?
a) Complete course of active immunization \& passive immunization
b) Only passive immunization
c) Two booster doses of HDC vaccine
d) Three booster doses of HDC vaccine + RIG
e) Only local treatment of wound and anti-tetanus measures

Key: True: c
10. A 20 years old lady read an article in a newspaper on vaccination against tetanus. She is very conscious of herself being vaccinate The best schedule that you would suggest for her at this age is:
a) Single dose of TT d) Five doses of TT
b) Two doses of TT one month apart
e) Nothing required till
c) Two doses one month apart with booster after five years
f) she gets pregnant

Key: True: d
11. A 30 years old man went in Benazir Bhutto's rally at Rawalpindi, where in a suicidal attack he got a penetrating injury on his leg. The emergency treatment was given. His immunity status against tetanus is not known. The required anti tetanus measures are
a) Toxoid one dose
b) Toxoid one dose + TIG
c) Toxoid complete course
d) Toxoid complete course + TIG
e) Fifteen hundred international units of ATS

Key: True: d
12. A primigravida came for antenatal. Her base line investigations along with screening for Hepatitis B and C were done. She was diagnosed HBV positive. What measure would you suggest to prevent the infection in her child after delivery?
a) Active immunization only
d) Chemoprophylaxis
b) Active \& passive Immunization
e) Reassurance
c) Only passive immunization

Key: True: b
13. A 6 weeks old boy came for DPT, polio \& HBV vaccination. He was given initial doses of all and was called after 4 weeks to have the next doses. The likely reason for calling him again was:
a) Loss of immune memory
d) Replication of lymphocytes
b) Stimulation of macrophages
e) Immune tolerance
c) Summation of immune responses

Key: True: c
14. A GP purchased BCG vaccine for his clinic. He should store this vaccine at his clinic in:
a) A dark place
d) Refrigerator
b) Deep freezer
e) Shelf
c) Water carrier

Key: True: d
15. A mother brought her four year old child to the doctor. She gave the history that her child was in close contact with a case of diphtheria in school. She was very anxious about her child and gave history of booster dose of DT 2 years ago. What would be line of management for such a child?
a) Booster dose of DT with penicillin
b) Active and passive immunization
c) Active and passive immunization with chemoprophylaxis
d) Only keep under surveillance for 1 week
e) Nothing more required

Key: a
16. A General Practitioner purchased BCG vaccine for his clinic He should store this vaccine at his clinic in:
a) A dark place
d) Refrigerator
b) Deep freezer
e) Shelf
c) Water carrier

Key: True: d
17. A 5 years old boy is brought to the emergency department with history of dog bit Examination revealed multiple transdermal bites on left leg. The best management for such a patient is:
a) Anti-rabies serum, suturing of wound, TT
b) Anti-rabies serum, suturing of wound, Vaccine
c) Vaccine, leave wound open, TT, ARS
d) Vaccine, leave wound open, TT
e) No Treatment if the dog disappears

Key: с
18. 1 year old child is being treated in Shaukat Khanam Hospital Lahore and getting radiotherapy for carcinoma. A polio case has been detected in his residential locality. Pediatrician decides to protect him against poliomyelitis by giving:
a) Human normal immunoglobulin
b) Human specific immunoglobulin
c) Oral polio vaccine
d) Inactivated polio vaccine
e) Chemoprophylaxis with antiviral drugs

True: d
19. Most important reason for recommending oral polio vaccine in the polio eradication campaign despite availability of a safe injectable vaccine is that, it:
a) Provides $90 \%$ immunity in one dose
b) Does not interfere with vertical immunity
c) Has been donated by WHO
d) Provides herd immunity
e) Has less side effects

Key: d
20. A 6 months pregnant lady comes for antenatal checkup for the first tim Her baseline investigation and screening for HBSAG and Anti HCV was don On screening she was found to have HBSAG. What would you prefer for this lady?
a) Active and passive immunization
b) Passive immunization
c) Active immunization
d) Anti-viral therapy
e) Advice for active and passive immunization of the baby at birth.

Key: e
21. In Sir-Syed Model School a student of class 3 developed measles. The child was isolated from rest of the class. The school medical officer advised for the contest of this child:
a) Active immunization within 3 days
d) Isolation
b) Passive immunization
e) Anti-viral therapy
c) Chemoprophylaxis

Key: b
22. A primigravida delivered a baby boy in the obstetric ward of POF hospital the doctor referred the baby on the same day to the EPI centre for vaccination of:
a) BCH only
d) DPT HBV +OPV
b) BCG OPV
e) OPV only
c) DPT only

Key: b

## Environment \& Health

1. The population living in Wah Cantt is using water from a deep spring, which is considered to be relatively free from organic contamination but rich in calcium bicarbonates and sulphates. On account of properties that spring water has, protects people from:
a) Gastroenteritis
b) Ancylostomiasis
c) Atherosclerosis
e) Degenerative heart disease
d) Renal problems
f)

Key: True: c
2. A well was present in a rural area where an unsanitary bore-hole latrine with lots of flies was present within 10 feet of distance. The disease more likely to be transmitted through drinking this well water is:
a) Leishmaniasis
d) Ancylostomiasis
b) Typhoid
e) Trachoma
c) Dental caries

Key: True: b
3. If a child has been drinking water containing $30 \mathrm{mg} / \mathrm{L}$ of nitrates the condition likely to occur is:
a) Infantile Methemoglobinemia
d) Dental caries
b) E-coli enteritis
e) Entrobiasis
c) Botulism

Key: True: a
4. Required amount of chlorine was added to a large body of water after sedimentation. The pH of water was 4.0 and level of sulphides was negligible. A contact period of one hour was ensure Eventually, it was found that chlorination was not successful. The likely reason was:
a) Low pH
d) Suspended impurities
b) Less contact time
e) Chemical antagonists
c) Less amount of chlorine

Key: True: a
5. People of a village reported a high prevalence of bacterial gastroenteritis even after proper chlorination of water supply for the recommended duration. On water analysis, level of chlorine in water was $0.01 \mathrm{mg} / \mathrm{L}$ and pH of water was 6.5 . There were no suspended impurities; levels of sulphides and ferrous were low. The likely reason of increased bacterial gastroenteritis even after chlorination is:
a) Low residual chlorine
b) High pH leading to chlorination failure
c) Presence of sulphides
d) Low level of ferrous
e) Inadequate contact time

Key: True: a
6. A water sample was taken from a source where catchment area included a large agricultural land. It was declared unfit for human consumption on account of raised concentration of a chemical. The likely chemical which has resulted in making this water unfit is:
a) Iodine
d) Chlorides
b) Calcium
e) Nitrite
c) Zinc

Key: True: e
7. During a sanitary inspection of a rapid sand filtration plant, slowing of the filtration rate was observed owing to loss of head. Which method will you suggest to give head to water in such a situation?
a) Addition of alum
b) Scraping the top layer
c) Increasing duration of storage
d) Back washing of sand bed
e) The addition of lime or soda ash

Key: True: d
8. You were required to chlorinate well water; you added required amount of bleaching powder solution to the water and allowed an overnight contact tim What is your recommendation regarding consumption of this water for drinking.
a) Fit for consumption
b) To be used after 12 hours
c) To be used after another 24 hours
d) Rechlorinate
e) May be used after boiling

Key: True: a
9. A dental surgeon appointed in rural health centre reports an increased incidence of dental carries in the children of that are the relevant preventive measure that he should suggest to the health authorities is:
a) Fluoridation of water
b) Chlorination of water
c) Use of bacterial filter
d) Use of boiled water
e) Softening of hard water

Key: True: a
10. Chlorination of water was done by addition of bleaching powder solution containing $10 \%$ available chlorine One hour contact time was ensure What is your recommendation regarding use of this water for drinking?
a) Fit for consumption
d) To be used after another 24 hours
b) Use after 06 hours
e) Rechlorinate
c) Use after 12 hours

Key: True: e
11. Water samples from two villages of Punjab were sent to Health laboratory for examination. Lab reports show fluoride levels ranging from 5.26 to $6.32 \mathrm{mg} / \mathrm{lit}$. Use of this water for drinking may lead to:
a) Dental caries
d) Periodontitis
b) Dental fluorosis
e) Alveolar abscess
c) Gingivitis

Key: True: b
12. An out-break of scabies was reported in a Kachi abadi consisting of 500 people. The appropriate preventive measures suggested by you would be to:
a) Filter the water
b) Improve accessibility to water
c) Destroy breeding sites of insects
d) Chlorinate water
e) Avoid bare footed watering of fields

Key: True: b
13. A sample of water taken from a water storage tank of a residential area was to be examined bacteriologically. A positive test of water sample by multiple tube method refers to the presence of
a) Coli-form organisms
b) Fecal streptococci
c) Nitrites
e) Fungi
d) Cl. Perfringens

Key: a
14. An epidemic of gastroenteritis affected more than 500 people in a city. Samples of water were taken from different sites of the supply system. Bacteriological examination was positive for coli forms. Chemical analysis of water showed the presence of high fluoride, nitrate, chloride and ph of 6 . Which content is suggestive of water born epidemic
a) Nitrates
d) Coli-forms
b) Chlorides
e) Fluoride
c) High pH

Key: d
15. Different agents are used for chlorination of water on large scale. If after chlorination taste of water is not much altered; level of residual chlorine is more stable and persistent. The likely agent to be used for chlorination was:
a) Bleaching powder
d) Perchloron
b) Chlorine gas
e) Chloride ions
c) Chloramines

Key: a
16. In a poor community, there is high prevalence of acute diarrhea cases. The best method for preventing this health problem in the long run is:
a) Anti-diarrheal drugs.
b) Immunization against cholera and typhoid
c) Provision of sanitary latrine
d) Use of boiled water.
e) Living in fly proof zone

Key: True: c
17. Six of the ten family members living in a single room house complain of intense itching with scratching in axillae, groin and hands; it is more marked at night. The most likely diagnosis is:
a) Scabies
c) Eczema
b) Dermatitis
d) Psoriasis
e) Dermatitis

Key: a
18. In a house consisting of two living rooms, the door and windows are facing each other. This will provide:
a) Low humidity
d) Diffusion
b) Aspiration
e) Acoustic discomfort
c) Cross ventilation

Key: с
19. A 12 members family was living in a house consisting of two rooms. Which disease is most likely to be common in the given situation?
a) Asthma
d) Cystic fibrosis
b) Tuberculosis
e) Emphysema
c) CA Bronchus

Key: b
20. A 5 member family was residing in a small house. The available floor space to one person was 30 sq ft . The problem which is more likely to be associated with this available space is:
a) Psychosocial
d) Enterobius vermicularis
b) Malnutrition
e) Malaria
c) Typhoid

Key: a
21. A water sample was taken from a village near Taxila On chemical analysis the fluoride level was found to be $0.03 \mathrm{mg} /$ lit. The likely effect on the body is:
a) Dental flourosis
d) Caries spine
b) Dental caries
e) Abdominal colic
c) Skeletal flourosis

Key: b
22. A water sample taken from a water storage tank of a residential area was sent for bacteriological examination in the laboratory. A test of water sample by multiple tube method was found positive, which referred to the presence of:
a) Coli-form organisms
b) Fecal streptococci
c) Nitrites
e) Fungi
d) Cl . Perfringens

Key: a
23. An army troop while being transported to Himalayan station had to stay at the altitude of 12,000 feet for 04 days. One of the soldiers developed pulmonary edema. The best immediate measure to be taken is:
a) Antibiotic therapy
d) Shift the patient to lower altitude
b) Suction of pulmonary fluids
e) Administer diuretics
c) Artificial respiration

Key: d
24. A Person working in compressed air chamber presented with symptoms of cough, dyspnoea and joint pains. This clinical presentation is suggestive of:
a) Pulmonary edema
d) Rupture of spleen
b) Fat embolism
e) Myocardial infarction
c) Air embolism

Key: с
25. The atmospheric pressure at earth's surface close to the sea level averages 760 mm of Hg . If a man lives at an altitude of 13000 feet above the sea level for few years, the main physiological effect is:
a) Decrease in respiration
b) Increase in concentration of hemoglobin
c) Decrease in concentration of hemoglobin
d) Decrease in cardiac output
e) Increased concentration of urine

Key: b
26. Husband and wife belonging to low socioeconomic status of a village are brought to the hospital with mental confusion, loss of memory, labored breathing eventually leading to coma. There is history of using coal fire, what is the most probable diagnosis:
a) $\mathrm{CO}_{2}$ poisoning
d) Sulphur dioxide poisoning
b) CO poisoning
e) Nitrogen dioxide poisoning
c) Hydrogen sulphides poisoning

Key: b
27. In the "Blake Hole of Kalkata", 146 prisoners were imprisoned in a room $18 \times 14 \times 10$ out of whom only 23 survive There were two small windows which were adequate to supply all the oxygen needs - even than only 23 survive What is the most likely cause of death?
a) Decreased oxygen
d) Heat retention
b) Increased carbon dioxide
e) Lack of sunlight
c) Increase ammonia

Key: d
28. A survey on air pollution was conducted in an urban area to determine the major contaminant in air. The major contaminant estimated in all air pollution is:
a) Grit and dust
d) Nitrogen dioxide
b) Sulphur dioxide
e) Smoke index
c) Carbon monoxide

Key: b
30. A person presented with hearing loss after 12 hours of noise exposure. This hearing loss disappeared shortly afterwards. The frequency of noise is likely to be between the ranges of:
a) $1000-2000 \mathrm{~Hz}$
b) $2000-4000 \mathrm{~Hz}$
c) $4000-6000 \mathrm{~Hz}$
d) $6000-8000 \mathrm{~Hz}$
e) $8000-10,000 \mathrm{~Hz}$

Key: c

## Maternal \& Child Health Care

1. To impart health education regarding child care to large number of mothers visiting MCH centre it is decided to resort to method of group discussions. What could be appropriate strength of each group for this purpose?
a) $3-5$
d) 20-25
b) $4-6$
e) $20-30$
c) 6-12

Key: True: c
2. To develop effective AIDS control strategy for Pakistan, the experts from all over the world are invited to devise the plan after relevant discussion. What name is given to this method?
a) Seminar
c) Symposium
b) Group discussion
d) Panel discussion
e) Workshop

Key: True: d
3. Persuasive communication was deliberately employed to manipulate feelings, attitudes and beliefs of people regarding smoking, this method is known as:
a) Counseling
d) Advising
b) Motivation
e) Education
c) Propaganda

Key: True: c
4. Health education is the responsibility of
a) Health educationalist
d) Every health worker
b) Doctor
e) Community Nurse
c) Paramedical staff

Key: True: d
5. Diarrhoeal cases among children of an urban slum are on a rise. Almost all the mothers are illiterate and belong to lower socioeconomic class. It seems difficult to make them understand the use of ORS. What method can provide the best solution in this scenario?
a) Role playing
d) Lectures
b) Poster competition
e) T.V commercials
c) Radio Programme

Key: True: a
6. There was a tableau held in POF Hospital, Wah Cantt on the world children's day to demonstrate the importance of ORS in dehydration with a back drop of ORS, breast feeding and MCH service. This method is known as: COMMUNITY MEDICINE ...VERY IMPORTANT MCQS
a) Poster competition
d) Lectures
b) Role playing
e) Learning by doing
c) Symposium

Key: True: b
7. After a thorough study of socio-demographic characteristics of a population in Dhok Ratta, a relevant method of health education against smoking was employed to this population. Upon assessing the population habits even after lapse of 2 years, no change in the behaviour of the smokers was note what is likely to be missing in this programme to achieve the desired results?
a) Reinforcement
b) Knowledge of cultures
c) Knowledge of beliefs
e) Appropriate methods
d) Required devotion

Key: True: a
8. In Pakistan about 50\% population is illiterate and smoking is mostly prevalent among the poor. Government has started giving pictorial warnings instead of written, to have a greater impact of health education on people: This strategy is more focused on:
a) Message
d) Channel
b) Receiver
e) Planning
c) Sender

Key: b

## Reproductive Health

1. A pregnant woman presented with pallor, shortness of breath, lethargy and palpitation. Her blood examination revealed hemoglobin level of $9 \mathrm{gm} / \mathrm{dl}$. In your opinion what could be the probable deficiency in the woman?
a) Iron
c) Vitamin C
b) Niacin
d) Iodine

Globin Key: a
2. A 30 years old pregnant lady, gravidity 2 parity 1, visited the antenatal clinic at 32 weeks of gestation. She was a known smoker. On physical examination blood pressure was found to be 120/80 mm Hg. Blood examination showed Hb level of $12.5 \mathrm{~g} / \mathrm{dl}$. Ultrasound was suggestive of intrauterine growth retardation. Which factor during pregnancy would have contributed to intrauterine growth retardation?
a) Age
c) Anemia
b) Parity
d) Hypertension

## Smoking Key: e

3. A 28 years old pregnant lady, gravidity 1 parity1, visited the antenatal clinic at 32 weeks of gestation. She was a known alcoholic. On physical examination blood pressure was found to be120/80 mm Hg. Blood examination showed Hb level of $12.5 \mathrm{~g} / \mathrm{dl}$. Ultrasound was suggestive of intrauterine growth retardation, Microcephaly and developmental delay. Which factor during pregnancy would have contributed to the fetal conditions?
a) Maternal age
c) Anemia
b) Parity
d) Hypertension
e) Alcohol consumption

Key: e
4. A newly married couple visits family planning centre for contraception. Upon investigation the woman has hyperlipidemia. The method of contraception which would be used cautiously in this woman is:
a) Condom
d) Mini pill
b) Combined oral contraceptive pill
e) Nor-plant
c) Second generation IUCD

Key: b
5. A 35 years old woman was brought to hospital with toxic shock syndrome. She was using some method of contraception. The method of contraception which had likely lead to this condition is:
a) Condom
d) Oral pills
b) Diaphragm
e) Norplant
c) Vaginal douching

Key: b
6. A 34 years old woman presented in the emergency department to a lady doctor with painful vulvar ulceration. On examination the ulcer had irregular margins with undermined edges. The ipsilateral inguinal lymph nodes were swollen and tender. The most likely diagnosis is:
a) Syphilis
d) Lymphogranuloma venereum
b) Herpes
e) HIV
c) Chancroid

Key: c
7. A 30 years old lady having two kids wants to plan her family. On examination she is found to be anemia. She also gives history of ectopic pregnancy last year. The best method of contraception for her would be:
a) Lippe's loop
d) Multi-load
b) Injectable contraceptives
e) $\mathrm{Cu}-\mathrm{T}$
c) Progestasert

Key: b
8. A 42 years old female wants to use oral contraceptive pills. She is 55 kg of weight and beetle chewer. On general examination she was found to be suffering from mild depression. This contraceptive method should be used cautiously in this woman because of her:
a) Age
d) Beetle chewing habit
b) Excess weight
e) Depression
c) Low weight

Key: a
9. For long term contraception, a sub -dermal implant known as "nor-plant" is being used now a days. The main disadvantage of Norplant is:
a) Spontaneous expulsion
d) Ectopic pregnancy
b) Irregular menstrual bleeding
e) Venous thrombosis
c) Pelvic inflammatory disease

Key: b
10. A primary Gravida with O - ve blood group comes to labour room with labour pains. Her husband's blood group is O+v In order to avoid Rh incompatibility in pregnancy, which measure would you take:
a) Administer AntiRh immunoglobulins at delivery
b) Serial ultrasonography
c) Chorionic villous biopsy
d) Amniocentesis
e) Beta HCG monitoring

Key: a
11. An 8 weeks pregnant lady comes to gynae OPD for antenatal visit for the first time. She told the doctor that she has come from far off area and it's not possible to come for her monthly antenatal visits. The doctor advised the minimum number of essential antenatal visits is:
a) 3
b) 4
c) 5
d) 6
e) 8

Key: a
12. A 25 years old para 2 delivered a baby boy last month. She went to a family planning center to seek advice for contraception. The frequency of breast feeding at night is mor The best way to avoid conception in the first four months following delivery is the use of:

Oral contraceptive
Male pills
Injectable contraceptive

3rd generation IUCD
no contraception
key: e
13. A nulliparous woman is presented in the OPD with severe bleeding after taking some contraceptive metho The gynecologist mimetically assessed that cause of bleeding was:

Copper T
Oral contraceptive
lippe?s loop
Norplant
vaginal sponge
key: c
14. A primigravida with 30 weeks of gestation visit OPD for routine checkup. Her $P$ was found to be $160 / 90 \mathrm{~mm} \mathrm{Hg}$. The doctor advised to report immediately if she develops:

Abdominal pain
Vaginal bleeding
Tinnitus
Swelling of the feet
Fever
Key: d
Occupational Health

1. A person aged 40 years, working as a laborer in grain market for the last 25 years presented with a history of repeated attacks of respiratory infections in the last 1 year. X-ray showed pulmonary fibrosis. The likely diagnosis was:

Tuberculosis

Silicosis

Silicotuberculosis

Farmer?s lung
Baggassosis
Key: True: d
2. An industrial worker reported to you with complaints of cough, history of dyspnoea on exertion and pain in the chest. His X-ray chest showed snow storm appearanc The diagnosis would be:

## Asbestosis

Siderosis
Silicosis

Aspergillosis
Byssinossis
Key: True: c
3. An occupational worker presented with complaints of exertional dyspnoe He gave history of being in an industry dealing with spare parts such as gas kit and brakes, he also gave history of smoking for about five years. His X-ray chest showed a ground glass appearance / honey combing in the lower two thirds of the lung fields. The likely condition that he suffers from is:

## Silicosis

Anthracosis

## Asbestosis

Siderosis
Key: True: c
4. A worker who had been in the battery manufacturing unit for the last 20 years, reported to you with complaints of loss of appetite and abdominal colic of 2 weeks duration. You will prefer to investigate him for:

Cholecystitis
Lead poisoning

Appendicitis

Ameobiasis
Ca stomach
Key: True: b
5. In a lead pipe factory, you want to carry out a screening programme in workers to exclude lead poisoning. Your choice of the most useful screening test will be measurement of:

Lead in blood

Lead in urine
Coproporphyrin in urine

Aminolaevulinic acid in urine

Basophilic stipling of RBCs
Key: True: c
6. In an automobile manufacturing plant of Pakistan, a large number of employees are working in different sections. Persons who work in the section of welding the parts together have started reporting sick with redness of eyes. On examination conjunctivitis and keratitis are foun What could be the cause of this problem?

Poor Personal Hygiene
Heat
Overwork
Ultraviolet radiations
lonizing radiations
Key: True: d
7. Your opinion is sought as a Public Health Specialist by the employers of a glass factory in which some workers have developed Silicosis. The most important control measure that you recommend is:

Pre-placement examination

Adequate personal hygiene

## Substitution

Periodic X-ray chest
Rigorous dust control
Key: True: e
8. Twenty workers of a chemical factory located in an industrial area near Lahore, are handling irritant chemicals (dichromates) as part of their jo Such workers require periodic medical examination. What could be the appropriate frequency of such examinations in your opinion?

Once a year
Twice a year
Monthly
Weekly
Daily
Key: True: d
9. The commonest physical health hazard in most industries is:

Heat

Noise
Humidity
lonizing radiation
Light
Key: a
10. A worker of a brick kiln was brought to the emergency department, in an unconscious stat He was hypotensive and sweating profusely. The likely condition he suffered from was;

Heat stroke
Heat exhaustion
Erythrocyanosis

Heat Hyperpyrexia
Heat cramps
Key: b
11. A pottery industry worker developed symptoms of tuberculosis. The likely condition which resulted in tuberculosis was:

Anthracosis
Asbestosis

Begassosis
Silicosis

Byssinosis
Key: b
12. A shipyard worker presents with increasing breathlessness. His X-ray shows ground glass appearance in lower two thirds of lungs. He is likely to be suffering from:

Anthracosis
Silicosis
Asbestosis
Farmer?s lung

Byssinosis
Key: с
13. A research team conducted a nation wide survey of Industries and factories. While arranging the data they observed that the most common occupational cancer was:

CA lung
CA bladder
CA skin

Leukemia

Key: c
14. A rubber industry worker presents with abdominal colic and severe anemi His blood examination reveals basophilic stippling of RBCs and microcytic anemi What is the likely diagnosis?

Lead poisoning
Benzene poisoning
Radiation effects
Sideroblastic anemia
Worm infestation

Key: a
15. A 35 years old man working in roofing industry presented to his primary care physician with complaints of dyspnea and chronic dry cough. Chest $X$-ray revealed pulmonary hyperinflation with "honey - comb" appearance and calcified parietal pleural plaques. What is the most likely diagnosis?

Anthrocosis
Asbestosis
Byssinosis
Silicosis

Farmers lung
Key: b
16. In the mica mines of Bihar, out of 329 miners examined, 34.1 percent were found suffering with irritant cough, dyspnoea on exertion and pain in the chest. On chest X-ray there was "snow - storm" appearance in the lung fields. What is the most likely diagnosis?

Asbestosis
Anthracosis
Siderosis

Silicosis
Tobacosis
Key: d
17. An industrial worker presented with pulmonary tuberculosis. On X- rays Calcification and fibrosis were seen. The likely industry he had worked in is:

Sand blasting
Poultry
Cotton

Agriculture
Sugar
Key a
18. A child aged 3 years from a day care centre, was reported to a doctor with complaints of abdominal colic and constipation for the last 2 days, on examination there were blue-line on the gums and his appearance was pal What is the most likely diagnosis?

Silicosis

Lead poisoning
Asbestosis
Anthrocosis
Silerosis
Key: b
19. In the mica mines of Bihar, out of 329 mines examined, 34.1 percent were found suffering with irritant cough, dyspnoea on exertion and pain in the chest. On chest X-ray there were "snow - storm" appearance in the lung fields. What is the most likely diagnosis?

Asbestosis
Anthracosis
Siderosis

Silicosis
Tobacosis
Key: d
Screening \& Sampling

1. The yield of a screening programme by a field test increased over a period of 3 years although the trade off between sensitivity and specificity remained the sam It gives a clue to an increase in;

Validity
Accuracy
Prevalence

Incidence

Reliability
Key: True: c
2. A woman came with antepartal bleeding. She was to be transfused with bloo Her blood was sent for blood grouping and HBV screening. She was found to be HB positiv This screening is;

Multiphasic
Targeted
Research

Mass

Opportunistic
Key: True: e
3. Worker of lead foundry are tested for corpoporphyrin in the urin This screening is:

Multiphasic
Targeted
Research

Mass
Opportunistic
Key: True: b
4. For screening of tuberculosis mantoux, chest x-rays and sputum analysis were used on the same occasion in Rawalpindi District. This screening is an example of:

Multiphasic
Targeted
Research

Mass

Opportunistic
Key: True: a
5. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
What will be the sensitivity?
30 \%
40 \%
54 \%
$60 \%$
70 \%

Key: True: a
6. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
What will be the specificity?
30 \%
40 \%
54 \%
60 \%
70 \%
Key: True: e

7. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
What will be Positive predictive value?

30 \%
40 \%
54 \%

60 \%
70 \%
Key: True: b
8. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

## Clinical Depression

Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
What will be the Negative predictive value?
30 \%
40 \%
54 \%

60 \%

70 \%
Key: True: d
9. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

## Clinical Depression

Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
What will be the False-positive rate?
30 \%
40 \%
54 \%
60 \%
70 \%

Key: True: a
10. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
What will be the False-negative rate?
30 \%
40 \%
54 \%
60 \%

70 \%
Key: True: e
11. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
What will be the Accuracy of a test?
30 \%
40 \%
54 \%
60 \%
70 \%
Key: True: c

12. The extent to which a test measures what it was originally designed to measure is described as:

Sensitivity
Specificity
Validity
Reliability
True-positive value
Key: True: c
13. Accuracy of the screening test will depend upon:

Validity
Systemic error
Reliability
Random error
Precision
Key: True: a
14. A pap smear and colposcopic examination for the early detection of cervical cancer and papilloma virus infection constitut

Primary prevention
Secondary prevention
Tertiary prevention
Medical treatment
Surgical treatment
Key: True: b
15. With X representing the most accurate cutoff point for a diagnostic screening test, what does D represent:

False positives
True positives
False negatives
True negatives
Skewed distribution
Key: True: a
16. The results of screening test for diabetes in a sample of 1000 people are as under:

400

What is the positive predictive value of this test?
70\%
88\%

68\%

48\%
90\%
Key: b
17. After excision of breast for Ca breast, a surgical reconstruction of breast tissue was don This reflects:

Primary prevention
Secondary prevention
Tertiary prevention
Medical treatment
Surgical treatment
Key: с
18. A screening test is positive in the majority of cases but false positive rate is much higher than true positives this indicates:

Low PPV
Low NPV
Low accuracy
High validity
High specificity

Key: a
19. For a given sensitivity and specificity the positive predictive value will be more if the disease under consideration has

High prevalence
Shot carrier state

High incidence
Short duration
High fatality
20. When we move from one population to another population to screen a given diseas We expect a change in:

Sensitivity
Specificity
Validity
Accuracy
Predictive value
21. It the positive predictive value of a test is higher it will indicate:

Low prevalence
Low negative predictive value
Low sensitivity
High specificity

Low accuracy
Biostatistics

1. A study was conducted in America to find out the proportion of blacks and white Americans in Californi This variable chosen is:

Nominal

Ordinal

Continuous
Discreet numerical

Dichotomous
Key: True: e
2. The median of the following data, is: $1,2,4,6,8,10,11,13$

6

8

7

10

9

Key: True: c
3. A household survey of 10 families was conducted by students of 4th year MBBS, Wah Medical Colleg In the collected data, the ages of heads of families were: $32,34,35,36,36,42,44,46,48$, and 52. The mean age of heads of families is

36
38.5

40
40.5

42
Key: True: d
4. A nutritional research team followed serum levels of vitamin B12 in 120 children for three years to determine the association between cyanocobalamin deficiency and the subsequent risk of developing Megaloblastic anemi The results were as follows:

VITAMIN B12 LEVELS

Mean

260 pg/mL
Median
226 pg/mL
Mode

194 pg/mL
From the data, it can be concluded that this distribution is:
Normal

Negatively
Positively skewed
Bimodal
Multimodal
Key: True: c
5. Serum cholesterol levels for two groups of Americans were recorded in 1989. The mean cholesterol levels of the two groups were compare To determine whether the measurements were significantly different or not, the most appropriate statistical test would be:

Chi-square test
Correlation analysis
F test (ANOV
Student?s t test
Regression analysis
Key: True: d
6. In a descriptive study the mean is 220 and the standard error is 10 , the 95 confidence limits would be:

210 to 230

215 to 225

200 to 240
220 to 230

## 205 to 235

Key: True: c
7. For a survey, a village is divided into 5 lanes, each lane is sampled randomly. It is an example of:

Simple random sampling
Standard random sampling
Systematic random sampling
Cluster random sampling
Quasi random sampling
Key: True: d
8. The birth weights in a hospital are to be presented in a graph. This is best done by a:

Bar diagram
Pie chart
Histogram
Pictogram
Frequency chart
Key: True: c
9. An analysis of the race of patients who visit an emergency room reveals that $40 \%$ are white, $25 \%$ are black, $20 \%$ are Native American, and $15 \%$ are Asian. These data would best be depicted graphically with a

Venn diagram
Cumulative frequency graph
Normal curve

Histogram
Pie chart
Key: True: e
10. If six families were surveyed and the numbers of children per family were found to be $2,3,4$, $4,5,6$, fine the mean number of children per family

2
3.5

4

6
4.5

Key: True: c
11. If, in one of the groups of premature infants, the maximum value for hexosaminidase A was substituted with a much higher valu The value which is unlikely to be affected by this higher value is:
aVariance
Range
Standard deviation
Median

Mean
Key: True: d
12. A nutritional research team followed serum levels of vitamin B12 and folic acid in 125 children for five years to determine the association between cyanocobalamin deficiency and the subsequent risk of developing megaloblastic anemi The results were as follows:

VITAMIN B12 LEVELS

Mean
262 pg/mL

Median
$228 \mathrm{pg} / \mathrm{mL}$
Mode

196 pg/mL
From the data, it can be concluded that this distribution is
Normal
Positively skewed
Negatively skewed
Skewed toward the left
Unable to be identified

Key: True: b
13. In study carried out in the hospital ward, every 10th admitted patient was included in the sample, which sampling procedure is this:

Random sampling
Stratified sampling
Quota sampling
Convenient sampling
Systematic sampling
Key: True: e
14. Three groups of subjects were followed over the course of five years to compare treatments for sideroblastic anemi The most appropriate statistical analysis to determine the quantitative serologic differences resulting from these treatments would be a(n)

Regression analysis
F test (ANOV
Correlation analysis

Chi-square test
T test
Key: True: b
15. In a class of 134 medical students, the mean systolic blood pressure was found to be 126 mm Hg with a standard deviation of 6 mm Hg If the blood pressures in this sample are normally distributed, what portion of the medical students will have systolic blood pressures above 132 mm Hg ?
0.5\%
2.5\%

5\%
16\%
32\%

Key: True: d
16. In a household survey conducted on ten families the frequency of family members in different age groups was less than 5 years ? 21, $5-14$ years ? $16,15-64$ years ? $77 \&>65$ years ? 1. The relative frequency of members in $15-64$ years age group would be:
60.5\%
67.5\%
70.5\%
76.5\%
80.5\%

Key: True: b
17. Malaria cases were reported throughout the world during the year 1971-1978 excluding African region. These cases can be best represented by:

Frequency polygon
Histogram

## Line diagram

Pictogram
Scatter diagram
Key: True: c
18. There are 50 individual in population and they have same hemoglobin level that is $14 \mathrm{~g} / \mathrm{dL}$. As there is no variability, the standard deviation will be:

0
1, -1
0,1
+2
$-2$
Key: True: a
19. A mean hemoglobin level of 100 women in a population sample is $12 \mathrm{~g} / \mathrm{dL}$ with standard deviation of 2 . The confidence interval for the population mean would be:
10.4-11.6
11.6-12.4
$12.4-13.6$
13.6-14.4
$14.4-15.6$
Key: True: b
20. The students of Wah Medical College visited Nasheman School. The numbers of students per class from class I to class IX were as follows:
$27,23,15,18,30,24,8,12$ and 16 . The median number in this series is:
12
15

Key: True: d
21. In a village of 300 population, $60 \%$ constitute Hindus, $20 \%$ Muslims, $10 \%$ Sikhs and 10\% Christians. We want to take a sample of $10 \%$ of the population to study the eating habits of this population. The best method would be:

Simple random sampling
Stratified random sampling
Systematic random sampling
Non-random sampling
Cluster sampling
Key: True: b
22. The median of a series of 20 observations is 10 , mean is 11.5 and mode is 11 , which of the following measures can be subjected to statistical manipulation:

Sample size
Mean
Median
Mode
Range
Key: True: b
23. Which of the following can have more than one value?

The mean
The range
The mode

The median
Standard deviation.
Key: True: c
24. The distribution of heights of the girls in Wah Medical College was plotte The most frequent value was 5 ? -2 ", which gives a single most important clue to its:

Negative skewness
Positive skewness
Normal distribution

Large standard deviation

Multi modal distribution
Key: True: c
25. A large study of bladder cancer and cigarette smoking produced the following data:

INCIDENCE OF BLADDER CANCER (per 100,000 males per year)
Cigarette smokers 48.0
Non-smokers 25.4

The relative risk of developing bladder cancers compared with non-smokers is:
Categorical variable
Ordinal data

Numerical, continuous variable
Numerical, discrete variable
Proportion

Key: True: c
26. Birth rates of a population of infants at 40 weeks gestational age are approximately normally distributed, with a mean of 3000 grams. Roughly $68 \%$ of such infants weigh between 2500 and 3500 at birth. If a sample of 100 infants was studied, the standard error would be

Key: True: a
27. When the standard for accepting the difference was at $P$-value of 0.05 and the calculated value was 0.01 , the null hypothesis was rejected by the researcher. What do you think of results?

Wrongly rejected
Significant difference
No difference
Alternate hypothesis is wrong
Sample size was small
Key: True: b
28. A study was conducted to assess the heights of 30 students. By chance all of the students were found to be of the same height. The standard deviation of this study sample is:

## Zero

0 -- -1
0 -- +1
$0--+2$

0 -- -2

Key: True: a
29. In the Medical OPD of teaching hospital of Wah Medical College, Wah Cantt, diastolic blood pressures of 10 patients were as follows:
$80,75,81,79,71,95,75,77,84, \& 90$. The mean of this data is:

Key: True: b
30. A normal distribution curve is based mainly on:

Mean and sample size
Mean and standard deviation
Range and sample size
Range and standard deviation
Mean and range
Key: True: b
31. The relative frequency of a class is obtained by:

Dividing the frequency of that class by the sum of all frequencies
Multiplying the frequency of that class by 100
Dividing the frequency of that class by 100
Dividing the sum of frequencies by 100
Dividing the frequency of that class by the sum of all frequencies and multiplied by 100
Key: True: e
32. A study was conducted to assess the height of students of 4th year in 10 Medical colleges the values of heights ranged between $5.5-5.10$ feet. A histogram has been selected by the researcher to present these results as it is a:

Nominal data
Categorical data

Both qualitative and quantitative data
Continuous data

Discrete numerical data

Key: True: d
33. A study was conducted to assess the height of students of 4th year in 10 Medical colleges. The values of heights ranged between $5.5-5.10$ feet. Which graph should be used by the researcher to present the obtained data?

Bar chart
Histogram
Pie chart

Scatter diagram
Line graph
Key: True: b
34. The median of the following data, is: $1,2,4,6,8,10,11,13$

6

8

7

10

9
Key: True: c
35. A large study of bladder cancer and cigarette smoking produced the following data:

INCIDENCE OF BLADDER CANCER (per 100,000 males per year)
Cigarette smokers 48.0
Non-smokers 25.4

The relative risk of developing bladder cancers compared with non-smokers is:

## Categorical variable

Ordinal data
Numerical, continuous variable
Numerical, discrete variable
None of the above
Key: True: c
36. Formula for chi square value is:

O-E

E

O-E

E2
(O-2

N

S(O-2
E
(O-2

E

Key:
37. The median of the following data, is:
$1,2,4,6,8,10,11,13$

6

8
7

Key: True: c
38. After arranging the data is ascending or descending order of magnitude, the value of middle observation:

Mean
Mode

Median
Geometric mean
Mean deviation

Key: True: c
39. The area between two standard deviations on either side of the mean $(X+2 S$. will include approx how much values in the distribution?

68\%
95\%
99.7\%

100\%
90\%
Key: True: b
40. Following test of significance will be used when more than two groups are to be compared?
" t " test
Chi-square test
Z-test
Standard error of proportion
Standard error of mean
Key: True: b
41. If the mean cholesterol value of a group of normal subjects is $230 \mathrm{mg} \%$ with a standard error of 20 . The $95 \%$ confidence limit for the population is:

220-240

210-250
200-260

190-270

180-280
Key: True: d
42. Birth rates of a population of infants at 36 weeks gestational age are approximately normally distributed, with a mean of 2500 grams. Roughly $95 \%$ of such infants weigh between 1900 and 3100 grams at birth. If a sample of 225 infants was studied the standard error would be:

10

20
30
40
50
Key: True: b
43. In Wah Medical College there are 86 students in final year, 102 in fourth year, 106 in Third year, 104 in second year and 100 in first year. The relative frequency of fourth year students would be:
5.5\%
10.5\%
15.5\%
20.5\%
25.5\%

Key: True: d
44. The distribution of height of the girls in Wah University was plotte The most frequent value was five feet and two inches, while mean height was five feet and eight inches. This show:

Negative skewness
Positive skewness
Normal distribution
Large standard deviation
Multimodal distribution
Key: True: b
45. A household survey of 10 families was conducted by students of 4 th year MBBS,

Wah Medical Colleg In the data they collected, the ages of heads of families were: $32,32,36,48,34,46,35,44,36$ and 32 years. The mode in this series:

32
34
36

44
46
Key: True: a
46. In the Medical OPD of teaching hospital of Wah Medical College, Wah Cantt, diastolic blood pressures of 10 patients were as follows:
$80,75,81,79,71,95,75,77,84, \& 90$. The mean of this data is:
80
81
82

83
84

Key: True: b
47. An investigator gets a positively skewed data on account of having only a small number of simple numerical observations at extremely high values. It will give an over estimate of:

Mean
Median

Mode

Correlation
Modal class
Key: True: a
48. An investigator gets a positively skewed data on account of having only a small number of simple numerical observations at extremely high values. Which measure of central tendency should he select if data is numerical?

Mean

Median
Mode
Geometric mean

Modal class
Key: True: b
49. When a relationship between the heart rate and valsalva?s ratio is studied, mean is useful but dispersion of the data is also very useful. Which method of spread will be more useful in this?

Range
Standard deviation

Coefficient of variance
Percentage

Inter quatile range
Key: True: c
50. In a descriptive study the mean is 200 and the standard error is 5 , the 95 confidence limits would be:

180 to 200
190 to 200
180 to 210

200 to 220
190 to 210
Key: e
51. An analysis of the race of patients who visit an emergency room reveals that $40 \%$ are white, $25 \%$ are black, $20 \%$ are Native American, and $15 \%$ are Asian. These data would best be depicted graphically with a

Venn diagram
Cumulative frequency graph
Normal curve
Histogram
Pie chart

Key: True: e
52. An investigator gets a positively skewed data on account of having only a small number of simple numerical observations at extremely high values. It will give an over estimate of:

Mean
Median

Mode

Correlation
Modal class

Key a
53. In a household survey conducted on ten families the frequency of family members in different age groups was less than 5 years ? 21, $5-14$ years ? $16,15-64$ years ? $77 \&>65$ years ? 1 . The relative frequency of members in $15-64$ years age group would be:

47\%

57\%
67\%
77\%

87\%
Key: b
Public health Care (PH

1. Your advice is sought to maintain sustainability of a health programm Which is the best and essential feature that you suggest to make the programme sustainable?

Community participation
Cost effectiveness
Cost analysis
Intersectoral collaboration

Equality
Key: True: a
2. The water and power development and public health engineering are the two areas which are working with the health department for control of diahrroeal and gastrointestinal diseases in Rawalpindi District, which is an example of:

Equity
Equality
Sustainability
Appropriate technology
Intersectoral collaboration

Key: True: e
3. Infant mortality was studied at one place by three different investigators / researchers. It was found that they all gave the similar figures. This quality of a measurement is referred as:

Sensitivity
Subjectivity
Specificity
Objectivity
Accuracy
Key: True: d
4. There was an epidemic of cholera in a village of Bangladesh. It was followed by increase in deaths mainly among children and eventually an increase in infant mortality rat This quality of IMR to change with changes in mortality trends is:

Sensitivity
Objectivity
Specificity
Validity
Accuracy
Key: True: a
5. A community survey was done to assess the health needs of community, community demanded more schools, sanitary water supply and sewage disposal. The surveyors recommended building of sanitary wells and bore-hole latrines straight away to decrease the incidence of diarrhoeal diseases. The provision of schools was delayed for a few reasons. This step by the health care providers is known as:

## Prioritization

Equity
Equality
Leadership

## Health promotion

Key: True: a
6. About $75 \%$ of population in Pakistan resides in rural areas and the remaining in peri-urban and urban areas, while the allocated funds for improvement of health
care programmes are more for urban areas. This is an example of:
Inequality
Inequity

Prioritization

Resource generation
Sustainability
Key: True: b
7. For providing quality health services, community participation plays an essential rol To ensure maximum community participation, which level of health care system should be strengthened?

Primary health care
Secondary health care
Tertiary health care
1st level referral facility
Higher level referral facility
Key: True: a
8 Pakistan was a signatory to "Health for All" concept and it adopted the PHC approach in 1978 to achieve the goals of HFA by the year 2000. The health infrastructure was developed and human resource inducte Keeping in mind the health scenario of Pakistan, which aspect is the most critical in achieving the desired objective of health for all?

Money
Community health workers
Leadership in health care

## Computer network

Research
Key: True: c
9. To suit the rural situation in Pakistan the lady health visitor introduced a home made fluid for oral rehydration. It will be described as:

Community participation
Feasibility
Suitability
Equity
Appropriate technology
Key: True: e
10. To achieve the objective of HFA the most crucial aspect which was missing in the implementation of PHC program in Pakistan was:

Leadership
Registration system
Monitoring
Evaluation

Prioritization

Key: True: a
11. To improve the health of the nations, "The Millennium Development Goals" are mainly focused on:

Women education

Involvement of men in RH

Fertility regulation
HMIS

Health system research
Key: True: a
12. Government of Pakistan started a program of safe water supply to people as part of water \& sanitation decade 1981-91 in order to improve their health. Many poverty alleviation schemes were also implemented to ensure economic stability and health. This reflects:

Intersectoral collaboration
Equality
Equity
Appropriate technology
Efficiency
Key: True: a
13. The effectiveness of an intervention will depend primarily on:

Equity
Equality
Money
Comprehensiveness
Planning \& management
Key: True: a
14. Information, Ministry of Food \& Agriculture, Ministry of Law and Ministry of Religious affairs should cooperate and coordinate to play their role for prevention of lodine deficiency disorders. This reflects:

Multi sectoral approach
Equity
Equality
Appropriate technology
Efficiency

Key: True: a
15. In order to improve the MCH services Government of Pakistan has started a program of training of lady health workers and trained birth attendants. They are selected by local committee and trained locally. By overcoming cultural and communication barriers, they provide primary health care in ways that are acceptable to the community. It shows:

Equality
Equity
Efficiency
Community participation
Intersectoral coordination
Key: True: d
16. In 1978 a global immunization program EPI was started to vaccinate the children against six vaccine preventable diseases g TB, Polio, Diphtheria, Pertusis, Tetanus and Measles. It was specifically designed to control morbidity and mortality among children. This reflects:

Selective approach
Holistic approach to child health
Comprehensive PHC
Equality
Inter sectoral approach
Key: True: a
17. For eradication of Polio, the polio eradication campaign was started in 1992. Since then several NIDs and SNIDs have been conducte Polio has almost been eradicated now. This program of immunization is based on:

Equity and appropriate technology
Comprehensive PHC
Leadership \& Community participation
Equity and Equality

Community participation
Key: True: a
18. A good manager is the one who sees to the things and ensures correct way of doing things. If he ensures low wastage of resources he is:

Effective
Efficient
A monitor
A decision maker
Supervisor
Key: True: b
19. A 20 years old boy had a head injury in a motor bike accident. His attendant took him to a general practitioner first who advised them to take him to POF hospital, Wah Cantt immediately because Advanced Trauma Life Support is available there only. The level of health care provided by POF hospital in this case is:

Primary
Secondary
Tertiary
First level referral facility
First level care facility
Key: True: c
20. An LHV in a BHU of a remote area examined a primigravida at 22 weeks of gestation. Her $P$ was 170/100. In order to have proper antenatal assessment and to prevent complications of pregnancy induced hypertension. The first level referral should be to:

BHU
THQ

DHQ

Teaching hosp[ital
Specialized maternity clinic
Key: True: b
21. According to a study conducted by WHO, 3 new cases of polio are found in interior Sindh in year 2007 despite the success of anti polio campaign. None of the children under 5 years of that village was given polio drops because parents had to travel for 1 and $1 / 2$ hour on foot to reach the BHU to have polio drops. This incidence of polio is due to lack of:

## Effectiveness

Efficacy
Acceptability
Accessibility
Affordability
Key: True: d
22. A woman traveled a long way from a remote village \& came to a population welfare centre/family planning centr She had enough money but was very tired on account of traveling. When she went inside, she found a male doctor dealing with the clients. She decided to go back. The most likely reason for this decision is lack of:

Acceptability
Affordability
Accessibility
Efficacy
Effectiveness

Key: True: a
23. The Northern areas of Pakistan are the recognized belts of endemic goiter, on account of lodine deficiency. The Government of Pakistan decided to promote sale of lodized salts in this are This is an example of:

Monitoring

Decision making
Equity
Affordability

## Efficiency

Key: True: c
24. There was an out break of simple watery diarrhea among children in a villag The health care providers wanted to avoid unnecessary hospital admitions and started distributing ORS to people, who had young children. This reflects:

Community participation
Equality
Sustainability
Appropriate technology
Intersectoral collaboration

Key: True: d
25. About 60\% pregnant ladies in rural areas of Pakistan were found having anemia. It was decided to provide them with iron \& folic acid supplements. This is an example of:
a) Equality
d) Community participation
b) Equity
e) Situation Analysis
c) Prioritization

Key: True: b
26. A health team visited along with the community leaders and health workers, all the primary schools and mosques in a village to give polio drops during polio campaign. The community workers facilitated identification of houses with children less than five years of age. This reflects:
a) Management
d) Community participation
b) Situation analysis
e) Intersectoral collaboration
c) Prioritization

Key: True: d
27. The pediatric OPD of POF hospital, Wah Cantt is dealing with 200 patients daily. This type of direct contact of patients with the health care provider makes the OPD of POF hospital particularly a:
a) First level care facility
d) Higher level referral facility
b) Tertiary care hospital
e) Special pediatric service outlet
c) First level referral facility

## Key: True: a

28. A high prevalence of CA cervix was found to be there in one of the tribal area of Pakistan. It was planned to have free facility of pap smear taken in the concerned rural health centre to screen the local population for the particular cancer. The program showed a lot of resistance as it lacked:
a) Accessibility
d) Effectiveness
b) Affordability
e) Equity
c) Acceptability

Key: True: c
29. Government of Pakistan started a program to set a free medical camp in Balakot especially in those areas affected by earthquake to provide medical care for the people to avoid transportation of patients to the hospital in the adjacent areas. This particular action to save additional expense on traveling is:
a) Appropriate technology
d) Community participation
b) Suitability
e) Prioritization
c) Equality

Key: True: a
30. A village was reported to have a high incidence of diarrhea Upon investigation it was found that people had to travel a long distance to fetch water from the river. The health care providers decided to build a small sanitary well, which was financially more feasible. This reflects:
a) Appropriate technology
d) Community participation
b) Equality
e) Prioritization
c) Efficiency

Key: True: a
31. The effectiveness of an intervention will depend primarily on:
a) Equity
d) Comprehensiveness
b) Equality
e) Planning and management
c) Money

Key a
32. To improve the health of the nations, "The Millennium Development Goals" are mainly focused on:
a) Women education
d) HMIS
b) Involvement of men in RH
e) Health system research
c) Fertility regulation

Key: a
33. For providing quality health services, community participation plays an essential role. To ensure maximum community participation, which level of health care system should be strengthened?
a) Primary health care
d) 1st level referral facility
b) Secondary health care
e) Higher level referral facility
c) Tertiary health care

Key: a

## DEMOGRAPHY

1. In 2005, Pakistan crude birth rate was 36 births per 1000 population and the crude death rate was 9 deaths per 1000 population. What was the population growth rate of the country in that year assuming no in and out migrations?
a) $2.9 \%$
b) $2.8 \%$
c) $2.7 \%$
d) $2.6 \%$
e) $2.5 \%$

Key: True: c
2. The changes in the size of population are indicated by five stages of demographic transition. Pakistan is currently in the:
a) First stage
d) Fourth stage
b) Third stage
e) Fifth stage
c) Second stage

Key: True: b
3. The total number of people in a completed family can be estimated from:
a) Net reproduction rate
d) Eligible couple rate
b) Gross reproduction rate
e) Total fertility rate
c) Contraception prevalence rate

Key: True: e
4. Population size is determined by fertility, mortality and migrations. A researcher concluded that Pakistan's population is increasing on account of high fertility which measure did he rely upon the most to conclude this?
a) Growth rate
d) Total fertility rate
b) Crude birth rate
e) General fertility rate
c) Natural increase rate

Key: True: d
5. The number of daughters a new born girl will bear during her life time assuming fixed age specific fertility and mortality rate, refers to which one of the following?
a) Age specific fertility rate
d) Total fertility rate
b) Gross reproduction rate
e) General fertility rate
c) Net reproduction rate

Key: True: c
6. In 1993 Burkina Faso had Gross reproductive rate of 3.5 while United Kingdom was only 0.86 that means if 1993 Fertility levels were to continue, which one of the following options will be correct.
a) The Net Reproductive Rate of Burkina Faso would definitely be more than 3.5
b) In United Kingdom, a woman would produce more than one daughter on average during her life time
c) In Burkina Faso, a woman would produce 3.5 daughters on average through her life time
d) The Net Reproductive Rate of UK will be more than on
e) The Net Reproductive Rate of Burkina Faso would be equal to Gross Reproductive Rate of the country

Key: True: c
7. The absolute number of population of an area at any point in time is:
a) Count
d) Proportion
b) Rate
e) Average
c) Ratio

Key: True: a
8. If the total number of reported births in Rawalpindi district were 10,000 and deaths were 5,000 in the year 2007. By giving these figures we are referring to:
a) Absolute numbers
d) Crude death rate
b) Crude birth rate
e) Vital index
c) Growth rate

Key: True: a
9. Many women in a country are educated, independent and they work for earning their lively hood too. When the number of males are expressed in relation with 100 females this is:
a) Sex ratio
d) Literacy rate
b) Sex rate
e) Working women ratio
c) Dependency ratio

Key: True: a
10. When total number of live births are expressed against the total population at a given place and during a given period. We are referring:
a) General fertility rate
d) Specific birth rate
b) Crude birth rate
e) Gross reproductive rate
c) Total fertility rate

Key: True: b
11. Hameed, Sara and Samia were born in the same year, they were neighbors and very close friends too. It was just a coincidence that their parents also got married about the same tim The most likely reason for their admission in the same class is:
a) Birth cohort
d) Neighborhood
b) Marriage cohort of parents
e) School accessibility
c) Friendship

Key: True: a
12. The population pyramid of United Arab Emirates in 1995 is shown. Which of the following is seen in this:
a) In -migration of males
d) Better Female survival
b) High fertility
e) Female predominance
c) High mortality

Key: True: a
13. This is Panjgur district (less developed population pyramid) which is the most obvious in this.
a) Low fertility
d) Better male survival
b) Low mortality
e) High female literacy
c) Male migration after 20

Key: True: c
14. Keeping in mind the population pyramid of Pakistan. Which of the following features is most obvious?
a) Population momentum
d) High literacy
b) Low migration
e) Increased life expectancy
c) Higher female mortality

Key: True: a
15. General fertility rate is a more refined measure than the birth rate because it relates births to the age sex group at risk of giving birth while defining general fertility rate the denominator consists of:
a) Mid-year total population of women
b) Population of women above 15 years of age
c) Population of women in child bearing age
d) Population of unmarried women
e) Total number of live births

Key: True: c
16. Fertility refers to the number of live births women have the best picture of how many children women are currently having is given by:
a) Total fertility rate
d) A crude birth rate
b) Age specific fertility rate
e) Net reproduction rate
c) General fertility rate

Key: True: a
17. Fertility is affected by cultural social economic \& health factors. These factors operate through other factors among them level of induced abortion is important. Abortion rate is used for its determination, the denominator used is:
a) Number of abortions
b) Number of women ages 15-49
c) Number of live births
d) Number of married women ages 45-49
e) Total population

Key: True: b
18. Family planning connotes conception control to avoid pregnancy \& abortion, but it includes efforts of couples to induce pregnancy. So family planning achievement is determined by a sensitive indicator which is:
a) Birth rate
d) Abortion rate
b) General fertility rate
e) General fertility rate
c) Age specific fertility rate

Key: True: c
19. Doubling time is another way of expressing population growth. If we suppose that growth rate of Poland remains constant at $0.08 \%$ population would be doubled in about.
a) 800 years
b) 870 years
c) 875 years
d) 880 years
e) 890 years

Key: True: c
20. Population study shows that it has five different stages. Pakistan is currently having decreased death rate and an increased birth rate, so we will place Pakistan in:
a) Stage I
d) Stage IV
b) Stage II
e) Stage V
c) Stage III

Key: True: b
21. Demographic cycle has five stages and each country is allotted a different stage according to its distribution of population. For examples if the death and birth rate of a country both are declining then we call it as:
a) High stationary
d) Low stationary
b) Early expanding
e) Declining
c) Late expanding

Key: True: c
22. The rate which is similar to gross reproduction rate but is always lower than it is depicted by average number of daughters a new born girl will bear during her lifetime assuming fixed age specific fertility \& mortality rates. This is called as:
a) Total fertility rate
b) Total marital fertility rate
c) Net reproduction rate
e) Replacement level fertility
d) General fertility rate

Key: True: c
23. A demographer observed that birth rate and death rate of Pakistan is decreasing but birth rate is still more than death rat What do you think in which phase of demographic transition does Pakistan currently exist?
a) High stationary
d) Declining
b) Late expanding
e) Low stationary
c) Early expanding

Key: b
24.

Country
1993 GRR

1993 NRR

Burkina Faso
3.50
2.41

United Kingdom
0.86
0.85

Keeping in mind the above figures about Burkina Faso (BF) and United Kingdom (UK) which interpretation is correct:
a) Low mortality in BF
d) Better education in BF
b) Low mortality in UK
e) Replacement level fertility in BF
c) High fertility in UK

Key: b
25. Many women in a country are educated, independent and they work for earning their lively hood too. When the number of males are expressed in relation to 100 of these females this is:
a) Sex ratio
b) Sex rate
c) Dependency ratio
e) Working women ratio
d) Literacy rate

Key: a
26. The number of children in 0 to 4 years of age per 1000 women of child bearing age ( $15-49$ years) is defined as:
a) General fertility rate
d) Net reproduction rate
b) Total fertility rate
e) Child woman ratio
c) Gross reproduction rate

Key: e
27. A researcher observed that birth rate and death rate of Pakistan is decreasing but birth rate is still more than death rate. What do you think in which phase of demographic transition Pakistan exist:
a) High stationery
d) Declining
b) Late expanding
e) Low stationary
c) Early expanding

Key: b
28. In Pakistan, demographers are of the view that the goal of net reproduction rate should be equal to 1 . They suggest that to achieve this goal family planning practices should be adopted by:
a) $45 \%$ couples
b) $50 \%$ couples
c) $60 \%$ couples
d) $55 \%$ couples
e) $65 \%$ couples

## Key: с

## Reproductive Health

1. A 14 week pregnant lady came to Gynae O.P.D with no specific complaints but to inquire about her additional requirements during this period. She was already taking 500 mg of calcium, 40 mg of iron and 0.5 mg of folic acid in combination. The comment of gynecologist on her present intake of micronutrient is?
a) Excess of iron
d) Less calcium
b) Less folic acid
e) Less iron in folic acid
c) Adequate calcium and iron

Key: True: d
2. The incidence of induced abortion is more among married women of Dhok Ratta Rawalpindi. Keeping in mind the reproductive health services of Pakistan, the most likely reason for these abortions is:
a) Illegitimacy
d) Under nourished females
b) Unwanted pregnancies
e) Infections
c) Anemia

Key: True: b
3. A weight conscious pregnant woman wants information about her requirement of calories per day during pregnancy. You suggest an increase of:
a) 250 kcal
b) 450 kcal
c) 350 kcal
d) 550 kcal
e) 650 kcal

Key: True: c
4. A woman reports for vaccination against tetanus only 25 days before delivery; she has not received the first dose. What will you do?
a) Give anti tetanus immunoglobulin
b) Give two doses of tetanus toxoid with 2 weeks interval
c) Advise appropriate antibiotic course during delivery
d) Give one dose of tetanus toxoid and advice the second dose after delivery
e) Advise passive immunization after delivery

Key: True: d
5. A woman in the seventh month of pregnancy reports to you in the antenatal clinic for the first time. The recommended immunization is by:
a) Tetanus toxoid
d) Pneumococcal vaccine
b) Hepatitis B vaccine
e) Tetanus immunoglobulin
c) Rubella vaccine

Key: True: a
6. A 30 years old woman fitted with an IUCD comes for post insertional examination and complains of vaginal bleeding; which of the following is the least important to look for in this patient:
a) Break through vaginal bleeding
c) Pelvic infection
b) Hyper menorrhea
d) Dysmenorrhea
e) Endometrial cancer

Key: True: e
7. A 52 year old postmenopausal woman who had never been able to conceive presented with anorexia, weight loss, nausea, abdominal discomfort, bloating, fullness, and no history of bleeding per vagina. She had a positive family history of gynecologic cancer on pelvic examination; it was possible to feel a pelvic mass. The suspicion of a malignancy should focus upon which one of the following sites?
a) Ovary
d) Cervix of vagina
b) Tube
e) No gynecologic organ
c) Endometrium

Key: True: a
8. One year old child comes to emergency with history of watery diarrhea for the last 24 hours.

A house physician reports his impalpable pulse and un- recordable blood pressure. The first immediate step in emergency is to advise:
a) $1 / V$ Ringer's lactate
b) Oral rehydration therapy
c) $I / V$ antibiotics
d) Stool examination
e) Urgent blood complete picture

Key: True: a
9. 30 years old married woman was advised X-Ray abdomen. To prevent radiation hazard to the baby in this woman, the doctor should take history of:
a) Hypersensitivity to radiation
d) Previous abortions
b) Menstrual cycle
e) Genetic history
c) Previous exposure to X-Ray

Key: True: b
10. A mother brought her six months old child to a BHU. She is worried about the growth of her child. The best single measure for assessing the physical growth in this age is:
a) Weight for age
d) Mid upper arm circumference
b) Height for age
e) Head circumference
c) Chest circumference

Key: True: a
11. A women delivers a baby boy at term with Down's syndrome. The most likely cause is:
a) An extra chromosome 21
d) Extra Y chromosome
b) No 2nd sex chromosome
e) Oligo-spermia
c) Phenotypic effect only

Key: True: a
12. A primigravida of 34 years had a normal vaginal delivery in a hospital. During the antenatal period she was labeled as hypertensive. She had a first stage of labour for 5 hours. She had a post-partum hemorrhage, the likely cause of which was:
a) Primary gravidity
d) Long 1st stage
b) Age of the mother
e) Untrained birth attendant
c) Hypertension

Key: True: c
13. The policy of delaying marriage of girls till 20 years of age belongs to:
a) Primordial prevention
d) Disability limitation
b) Primary prevention
e) Rehabilitation
c) Secondary prevention

Key: True: a
14. To prevent neonatal tetanus by TT injections during pregnancy is the:
a) Primordial prevention
d) Disability limitation
b) Primary prevention
e) Rehabilitation
c) Secondary prevention

Key: True: b
15. Antenatal service for detection of diseases which may lead to complications in pregnancy is an example of:
a) Primordial prevention
d) Disability limitation
b) Primary prevention
e) Rehabilitation
c) Secondary prevention

Key: True: c
16. Management of deep vein thrombosis to arrest the progression of the disease is:
a) Primordial prevention
b) Primary prevention
c) Secondary prevention
e) Rehabilitation
d) Disability limitation

Key: True: d
17. Use of oral contraceptives by women smokers over 35 years of age is associated with increased risk of:
a) Cervical cancer
d) Coronary heart disease
b) Breast carcinoma
e) Peripheral neuropathy
c) Chronic bronchitis

Key: True:
18. A forty years old woman presents with an ovarian cyst; you want to screen her for breast cancer before suggesting any hormonal treatment. What will you advise?
a) Chest radiograph
d) Blood levels of progesterone
b) Mammography
e) Tumor markers
c) Biopsy of breast

Key: True:
19. A child of 1 year presents with muscle wasting, loss of subcutaneous fat with no signs of edema and weight below $60 \%$ of WHO standard. The mother gives history of not giving enough proteins and other nutrients to the child after six months of age. The likely diagnosis is:
a) Kwashiorkor
d) Under nutrition
b) Marasmus
e) Vitamin B1 deficiency
c) Marasmus \& kwashiorkor

Key: True:
20. A woman reports at a health facility with labour pains at term. She is suffering from chicken pox. The measure taken to prevent chicken pox in the baby after birth is to give:
a) Acyclovir to woman
c) HZIG to baby at birth
b) Nonspecific immunoglobulin to baby
d) HZIG to woman before delivery at birth
e) HZIG and acyclovir to mother

Key: True: c
21. A women in the first trimester of pregnancy came with symptoms of mild fever, rash, sore throat, and enlarged cervical glands. The doctor, after taking history and conducting necessary examinations, decides to terminate the pregnancy because of the danger of severe congenital malformations. Which is the likely infection?
a) HIV
d) Malaria
b) HBV
e) Rubella
c) Herpes simplex

Key: True: e

## Communicable Diseases

1. A woman brought her child with congenital anomalies of heart and cataract. She gave history of mild fever and rash in the first trimester of pregnancy, which settled with mild antipyretics. The possible gestational condition that resulted in these anomalies was:
a) Measles
d) Drugs taken in pregnancy
b) Herpes
e) Streptococcal scarlet fever
c) Rubella

Key: True: c
2. A 22 years old man presented with painful, vesicular and postulate eruption in the distribution of sensory nerve roots on his back. He gave history of chicken pox infection at ten years of age. The likely diagnosis was:
a) Measles
d) Scarlet fever
b) Meningococcemia
e) Herpes zoster
c) Herpes simplex

Key: True: e
3. A patient who has come from India, reports to a health facility with severe generalized aches and pain and rash on the body excluding palms and soles. The most likely diagnosis is:
a) Scarlet fever
d) Dengue
b) Trypanosomniasis
e) Yellow Fever
c) Malaria

Key: True: d
4. There is an epidemic of Meningococcal Meningitis among jail prisoners. The best chemoprophylaxis for the protection of contacts is by giving:
a) Rifampicin
d) Doxycycline
b) Chloramphenicol
e) Penicillin
c) Chloroquine

Key: True: a
5. Six of the ten family members living in a single room house complain of intense itching with scratching in axillae, groin \& hands; it is more marked at night. The most likely diagnosis is:
a) Scabies
d) Psoriasis
b) Dermatitis
e) Dermatosis
c) Eczema

Key: True: a
6. A 5 years old boy developed fever with typical "dew drop rash" over his body. It appeared first on the trunk and spread to arms and legs later; there were no signs of neck stiffness and rigidity. What could be likely diagnosis?
a) Small pox
d) Meningococcal meningitis
b) Measles
e) Chicken pox
c) Tanapox

Key: True: e
7. A school child is diagnosed to have chicken pox. He should be isolated from other school children till:
a) The scabs fall off
b) Two days after the scabs are formed
c) Three days after the fever develops
d) Five days after the development of pustules
e) Seven days after the development of pustules

Key: True: a
8. A mother brought her 4 years old child with complaint of sore throat, difficulty in swallowing and low grade fever. On examination mild erythema and whitish membrane was found on the posterior pharynx. The doctor diagnosed him as a case of Diphtheric Mother gave history of complete course of immunization. In addition to penicillin what would be your line of management?
a) Supportive treatment
d) Active plus passive immunization
b) Passive immunization
c) Active immunization
e) Active and passive immunization plus Tracheostomy

Key: True: b
9. An anxious mother came to OPD. Her son was diagnosed as a case of Meningitis last week. She was worried about her two daughters who were still well. Physician advised chemoprophylaxis by:
a) Quinolones
d) Penicillin
b) Rifampicin
e) Gentamicin
c) Macrolides

Key: b
10. In Pediatric OPD the physician examined a 3 years old child with low grade fever, mild erythema in the throat and whitish membrane on the left side tonsil. The cervical lymph node was palpable. The doctor advised the mother to isolate the child for 7 days from other contacts of less than 5 years old. The most probable diagnosis is
a) Pharyngitis
d) Acute Laryngitis
b) Tonsillitis
e) Whooping cough
c) Diphtheria

Key: True: c
11. A student of nursery class developed mild fever along with irritating cough gradually becoming paroxysmal along with characteristic whoop. What you suggest for how long the student should be isolated from the class?
a) I week
d) 4 weeks
b) 2 weeks
e) 6 weeks
c) 3 weeks

Key: True: d
12. A 30 years old man presented in emergency in POF hospital with complaint of severe headache, fever and vomiting. On examination neck stiffness was found. He has just returned from hajj and gives no history of preceding ailment or injury. The most probable diagnosis is
a) Meningitis
d) Cerebral Malaria
b) Tetanus
e) Ischemic stroke
c) Brain abscess

Key: True: a
13. If you being a field doctor in department of public health, are given a task to visit a low socioeconomic community of a slum and to give report about the immunization status of the community against Tuberculosis. The single most important clue to this immunization is
a) Monteux test
b) Tuberculosis patients
c) BCG scar
e) Sputum for AFB
d) X-ray chest

Key: True: c
14. An epidemiologist was assigned to find out all the cases, both new and old of T.B, in a slum located near Islamabad during year 2007.Prevelance of tuberculosis is confirmed by:
a) Mass miniature radiography
d) Tuberculin test
b) Sputum examination
e) BCG scar mark
c) Sputum culture

Key: True: c
15. Ministry of health in collaboration with WHO is working to eradicate polio from Pakistan since 1992 .But still there are few cases of polio identified each year .source of most Polio infection is
a) Clinical carriers
d) Animal source
b) Healthy carriers
e) Soil
c) Convalescent carriers

Key: True: c
16. A 10 years old boy was brought to a doctor in a hospital with history of moderate fever with shivering and abundant rash on the trunk and buccal mucosa. On examination there were vesicles filled with clear fluid on the trunk and legs. The physician told the mother that child is suffering from
a) Herpes
d) German measles
b) Chicken pox
e) Tanapox
c) Rubella

Key: True: b
17. A man living in a slum area was brought to the emergency of the DHQ Rawalpindi with history of passing rice water stools about 20-30 times a day and vomiting for last 1 day. On examination there were signs of severe dehydration and patient was in shock. What is the likely diagnosis?
a) Typhoid
d) Food poisoning
b) Amoebic dysentery
e) Giardiasis
c) Cholera

Key: True: c
18. In a shanty town of Karachi where intermittent water supply system existing a woman noticed lots of mosquitoes which were black and spotted around the water tank. Keeping in mind this situation which disease is likely to be seen in this family?
a) Dengue
d) Filariasis
b) Yellow fever
e) Encephalitis
c) Malaria

Key: True: a
19. A mother brought her infant to a doctor and told him about the severe itching and restlessness at night. Examination revealed presence of burrows and vesicles especially on sides of fingers and finger webs
a) Scabies
d) Ring worm
b) Insect bite
e) Onchocerciasis
c) Prickly heat

Key: True: a
20. After an epidemic of measles in a village near Taxila, some children reported with history of weight loss and blindness, from corneal scarring. The most likely cause of this complication is deficiency of
a) Vitamin K
d) Vitamin C
b) Vitamin $D$
e) Vitamin B12
c) Vitamin A

Key: True: c
21. An outbreak of measles occurred in rural areas surrounding the District Rawalpindi. The local Government planned mass immunization of children against measles. Immunity conferred by measles vaccine last for
a) 1 year
d) 15 years
b) 5 years
e) Life long
c) 10 years

Key: True: e
22. In a day care centre a child was having measles. In the centre the children between the ages of 9-12 months can be protected against measles with measles vaccine, provided that this is given with in
a) 1 day of exposure
b) 3 days of exposure
c) 5 days of exposure
d) 7 days of exposure
e) 10 days of exposure

Key: True: b
23. A pregnant lady reported to ante natal clinic with signs and symptoms of Rubella during 28th week of gestation. She was insisting for the induction of labor because of fear of congenital malformations of fetus. She was told by the doctor that Rubella does not cause major abnormalities of fetus after
a) 8th week of pregnancy
d) 20th week of pregnancy
b) 12th week of pregnancy
e) 24th week of pregnancy
c) 16th week of pregnancy

Key: True: c
24. A 7 years old child presented with sore throat low grade fever rash on face and posterior auricular and cervical lymphadenopathy. The most probable diagnosis is
a) Chicken pox
d) Rubella
b) Small pox
e) Mumps
c) Measles

Key: True: d
25. You are performing the duties of Airport Medical Officer. An Aircraft has landed from Africa and you found that one of the passengers is not having the vaccination certificate against yellow fever. What would you suggest for him?
a) Vaccination
b) Quarantine for 10 days
c) Isolation for 1 month
d) Chemoprophylaxis
e) Passive immunization with non-specific immunoglobulin

Key: True: b
26. A neonate presented in pediatric emergency on 8th day of birth with high grade fever, locked jaw and stiffness of whole body. Mother gave history of home delivery in a village and application of cow dung on the umbilical stump. She gave no history of T.T during pregnancy. The most probable diagnosis is:
a) Encephalitis
d) Epilepsy
b) Meningitis
e) Cerebral malaria
c) Tetanus neonatarum

Key: True: c
27. A 25 years lady was brought in gynae emergency of PIMS hospital at Islamabad with high grade fever, stiffness of whole body and locked jaw. Her mother gave the history that she got an
abortion done at 8th week from a local Dai 3 days back. The per-vaginal examination revealed foul smelling purulent discharge. What is the most probable diagnosis?
a) Puerperal tetanus
d) Strychnine poisoning
b) PID
e) Vaginal diphtheria
c) UTI

Key: True: a
28. A 3rd year MBBS student of FJMC presented in ENT OPD with complaint of sore throat, pain of swallowing \& low grade fever examination revealed erythema on the pharynx and a whitish membrane on the pharynx extending to the left tonsil. The doctor diagnosed her as a case of diphtheria. What do you suggest minimum isolation period:
a) Six daily negative throat and nasal swabs report
b) Till the signs \& symptoms settle down
c) One week course of antibiotic
d) For days
e) Till complete blood picture becomes normal

Key: True: a
29. A disease outbreak occurred in India last year. Many patients either presented with enlarged painful lymph nodes or pneumonia with high grade fever and toxicity. High mortality due to pneumonia was also reported. The likely epidemic is:
a) Dengue
d) Yellow fever
b) Plague
e) Malaria
c) Filariasis

Key: b
30. A mother brought her child with history of paroxysmal cough and restlessness. On examination he showed a loud inspiratory sound and sub-conjuctival haemorrhagic On the basis of clinical presentation what should be the drug of choice:
a) Erythromycin
d) Sulphadiazine
b) Ampicillin
e) Co- trimoxazole
c) Tetracycline

Key: a
31. A 40 year old tuberculosis patient on ATT for the last two months presented to his physician with complaints of tingling, numbness and loss of peripheral sensation. The likely anti tuberculosis drug to have caused these symptoms is:
a) Isoniazid
d) Pyrazinamide
b) Rifampicin
e) Ethambutol
c) Streptomycin

Key: a
32. 10 years old boy presented with high grade fever, chills, aches, cough and generalized weakness. He was diagnosed as a case of influenza. The most dreaded complication is:
a) Encephalitis
d) Reye's syndrome
b) Pneumonia
e) Sub-Conjunctival hemorrhages
c) Toxic shock syndrome

Key: b
33. A patient comes to medical OPD with complaints of continuous fever and abdominal pain for ten days. His blood culture shows S. typhi. The doctor decided to admit him in medical ward and the patient should be isolated till:
a) Six stool cultures become negative
b) Three stool culture become negative
c) Three blood culture become negative
d) One stool culture become negative
e) Patient become afebrile

Key: b
34. On routine investigation of mess workers of girls' hostel, Dr. Sarah noted that two of the mess worker showed positive stool culture for S .typhi although they were symptom free. They require:
a) No treatment
b) Isolation only
c) Quinolones for 1 week
d) Ampicillin plus probenecid for 1 week
e) Vaccination

Key: d
35. A 22 years old married non pregnant woman developed rubella infection. In order to avoid congenital rubella syndrome in her pregnancy she should be given:
a) Antibiotics
b) Active immunization
c) Nonspecific immunization
d) Advice to avoid conception for 12 weeks
e) Anti viral therapy

Key: d
36. A 40 years old man was diagnosed as a case of TB 4 weeks ago. He has been taking ATT for the last 3 weeks. His sputum analysis showed AFB on follow up investigation. Such a case of TB is known as:
a) Failure case
d) Transfer out
b) Newer case
e) Resistant
c) Defaulter

Key: b
37. A primigravida presented in Medical OPD at 39 weeks of gestation with dew drop rash on the body for 1 day she was diagnosed as having chicken pox she was told that her baby is at higher risk of having:
a) Low birth weight
d) Varicella infections
b) Microcephaly
e) Cutaneous scars
c) Atrophied limbs

Key: d
38. A 17 year old boy was brought in emergency department with symptoms of acute encephalopathy. He was admitted in ICU, initial investigation revealed that his liver had undergone fatly degeneration. His father gave history of rash on his body. Most likely he suffered from:
a) Measles
d) Mumps
b) Rubella
e) Cutaneous diphtheria
c) Chicken pox

Key: с
39. After serial sonography it was told to the apparently healthy pregnant woman that her baby is microcephalic and of low birth weight she gave no important medical history of note except mild febrile illness with rapidly disappearing rash in 2nd month of pregnancy. Most likely she suffered from:
a) Chicken pox
d) Cutaneous diphtheria
b) German measles
e) Malaria
c) Measles

Key: b
40. 4 years old girl was having fever, cough with a characteristic whoop. She was diagnosed as a case of whooping cough several antibodies are effective they are important as they:
a) Reduce the frequency of spasm
d) Control secondary bacterial infection
b) Control severity of disease
e) Prevent carrier state
c) Shorten the illness

Key: d

## Snake Bite

1. 10 years old boy was brought to a rural health centre with probable history of snake bite 12 hours back. On examination of the wound, multiple small punctured lesions with a mild swelling were observed; no other local \& systemic signs of envenomation were found, but the patient was very anxious. The management for this emergency is:
a) Polyvalent anti-snake venom serum
b) Reassurance
c) Antibiotics
d) Tourniquet
e) Anti-rabies vaccine

Key: True: b
2. A 30 years old lady is bitten by a snake. She complains of giddiness, lethargy, muscular weakness and spreading paralysis. The type of snake involved is:
a) Sea snake
d) Bamboo snake
b) Green pit viper
e) Russell's viper
c) Elapid snake

Key: True: c
3. A 7 years old child reported to a private hospital with history of snake bite. On examination there were petechial hemorrhages and bleeding from rectum. The toxic principal in snake venom responsible for those signs is:
a) Proteolysin
d) Hyaluronidase
b) Neurotoxin
e) Thromboplastin
c) Cholinesterase

Key: True: e
4. A case of snake bite was brought to a basic health unit. According to the American Red Cross the immediate step to be taken is:
a) Ice packing
c) Give incisions in the wound
b) Apply tourniquet
d) Immobilize the bitten area
e) Give electric shock.

Key: True: d
5. 45 Years old man was brought to emergency department of hospital with history of snake bit. There was intense local pain, swelling and ecchymosis at site of bit few hours later bleeding started from the gums, followed by coma and death. The most probable cause of death is:
a) Respiratory paralysis
d) Sepsis
b) Circulatory collapse
e) Pulmonary embolism
c) Renal failure

Key: True: b
6. 45 Years old man was brought to emergency department of hospital with history of snake bit there was intense local pain, swelling and ecchymosis at site of bit few hours later bleeding started from the gums, followed by coma and death. The type of snake involved is:
a) Sea snake
d) Cobra
b) Common krait
e) Elapid snake
c) Green pit viper

Key: c

## Housing

1. Six of the ten family members living in a single room house complain of intense itching with scratching in axillae, groin \& bands; it is more marked at night. The most likely diagnosis is:
a) Scabies
d) Psoriasis
b) Dermatitis
e) Dermatosis
c) Eczema

Key: True: a

1. Six of the ten family members living in a single room house complain of intense itching with scratching in axillae, groin and hands; it is more marked at night. The most likely diagnosis is:
a) Scabies
d) Psoriasis
b) Dermatitis
e) Dermatosis
c) Eczema

Key: True: a
3. In a house consisting of two living rooms, the door and windows are facing each other. This will provide:
a) Low humidity
d) Diffusion
b) Aspiration
e) Acoustic discomfort
c) Cross ventilation

Key: True: c
4. A 12 members family was living in a house consisting of two rooms. Which disease is most likely to be common in the given situation?
a) Asthma
d) Cystic fibrosis
b) Tuberculosis
e) Emphysema
c) C Bronchus

Key: True: b
5. A 5 member family was residing in a small house. The available floor space to one person was 30 sq. ft . The problem which is more likely to be associated with this available space is:
a) Psychosocial
d) Enterobius vermicularis
b) Malnutrition
e) Malaria
c) Typhoid

Key: True: a

## NuTRITION

1. If a child presents with protein energy malnutrition showing signs of loss of subcutaneous fat and weight reduction. The level of prevention suggested at this point is:
a) Primordial prevention
b) Health promotion
c) Specific protection
d) Early diagnosis and prompt treatment
e) Disability limitation \& rehabilitation

Key: True: e
2. A child of 1 year presents with muscle wasting, loss of subcutaneous fat with no signs of edema and weight below $60 \%$ of WHO standard. The mother gives history of not giving enough proteins and other nutrients to the child after six months of age. The likely diagnosis is:
a) Kwashiorkor
d) Under nutrition
b) Marasmus
e) Vitamin B1 deficiency
c) Marasmus \& kwashiorkor

Key: True: b
3. A weight conscious pregnant woman wants information about her requirement of calories per day during pregnancy. You suggest an increase of:
a) 250 kcal
b) 450 kcal
c) 350 kcal
d) 550 kcal
e) 650 kcal

Key: True: c
4. A 5 years old child complains of poor vision at night with no other refractive error. He is likely to be benefited by:
a) Cod liver oil capsules
b) Oral antibiotics
c) Eye drops containing antibiotics
d) Suitable eyeglasses
e) Intra ocular lens replacement

Key: True: a
5. A strict vegetarian, Raj Gopal - 23 years old foreign student in WMC is having lethargy, easy fatigue and palpitations. He is found to have macrocytic anemia on blood CP. He is suffering from deficiency of vitamin:
a) A
b) B 1
c) B 6
d) B 12
e) $D$

Key: True: d
6. A lady brought her 8 years old child to a doctor. She complained that her child was unable to see things properly at night: child had been having diahrroea off and on. Which vitamin deficiency is most likely in this child?
a) $A$
d) E
b) $B$
e) K
c) D

Key: True: a
7. 2 years old child was brought to the emergency department. He was having convulsions. On a rapid general physical examination kyphoscoliosis was discovered X-ray showed swollen lower end of radius. What is the likely diagnosis?
a) Osteomalacia
b) Keratomalacia
c) Rickets
e) Beriberi
d) Pellagra

Key: True: c
8. A Pakistani physician went to work in South Africa. A woman reported with diarrhoea On examination she was found to have glossitis and stomatitis. Her detailed investigations revealed presence of anemia. She was diagnosed as a case of Niacin deficiency. The likely food to have caused this deficiency state is:
a) Legumes
d) Raw rice
b) Maize
e) Pearl millets
c) Whole wheat

Key: True: b
9. A chronic alcoholic was complaining of loss of appetite and pain in lower legs. On examination his gate was ataxia. He is suffering from deficiency of:
a) Niacin
d) Folate
b) Thiamine
e) Pantothenic acid
c) Riboflavin

Key: True: b
10. A patient of pulmonary tuberculosis was put on anti-tuberculosis therapy. He was given Rifampicin, INH, Ethambutol and Pyrazinamide He should be advised to have a supplement of:
a) Niacin
d) Thiamine
b) Pyridoxine
e) Pantothenic acid
c) Riboflavin

Key: True: b
11. A pregnant lady comes to Gynae OPD complaining about increasing lethargy and shortness of breath. On examination she is found to have glossitis. Her blood CP reveals macrocytic anemia. The most likely deficiency which has caused this condition is:
a) Folic acid
d) Niacin
b) Pantothenic acid
e) Thiamine
c) Vitamin B6

Key: True: a
12. A 30 years old lady was brought to the hospital with strong labour pains for the last 3 hours and no progress. She was found to have pelvic deformities which lead to cephalopelvic
disproportion. The baby was delivered by a cesarean section. The woman is likely to have suffered from the deficiency of:
a) Vitamin $A$
c) Vitamin C
b) Vitamin B
d) Vitamin D
e) Vitamin K

Key: True: d
13. A person who subsisted on taking maize only for many years reported to a health facility with the signs of glossitis. His history suggested frequent attacks of diarrhea and memory loss. The likely condition is:
a) Pellagra
d) Iron deficiency
b) Riboflavin deficiency
e) Protein malnutrition
c) Beri Beri

Key: True: a
14. Strictly vegetarian Hindu teacher presented with lower limbs weakness. His examination revealed upper motor neuron signs in lower limbs. His blood CP showed macrocytic anemia. He is probably suffering from deficiency of vitamin:
a) A
b) B 6
c) B 12
d) B 1
e) $D$

Key: True: c
15. 15 years old boy living in Murree is having swelling in the neck, Apart from weakness and constipation; there are no other complaints at present. He is likely to be suffering from deficiency of:
a) Calcium
d) Iron
b) Fluorine
e) Sodium
c) Iodine

Key: True: c
16. A dental surgeon appointed in a rural health centre reports an increased incidence of dental caries in the people of that area. Research team confirmed that water supply of that area is deficient in:
a) Chloride
c) Calcium
b) Sodium
d) Fluoride
e) Zinc

Key: True: d
17. The non-clinical Vit-A deficiency is more common as compared to the clinical, threatening the health of as many as one third of the world's children. The best proxy indicator of this is:
a) Infant mortality rate
b) Maternal mortality rate
c) Literacy rate
d) Proportion of the rural population
e) Specialized medical care

Key: True: a
18. A 4 year old child was brought in Pediatric OPD with complaint of inability to see at night for the last few days, Pediatrician suspected deficiency of vitamin. Although the clinical signs of vitamin A deficiency are rare, but if occurred, what would be the first clinical sign?
a) Retinal detachment
d) Corneal xerosis
b) Conjuctival xerosis
e) Keratomalacia
c) Bitot spot

Key: True: b
19. In a Madrasa of a remote area, 14 girls of 9 years of age were residing to memorize Quran Pak. They were treated well but they observed strict Purdah and were never allowed to visit outside. On returning home after 5 years, 10 of them were short stature. The most likely reason of being short statured:
a) Vitamin A
d) Vitamin D
b) Vitamin B12
e) Vitamin K
c) Vitamin C

Key: True: d
21. Researches decided to study the impact of iodized salt programme especially in hilly areas of Pakistan. They had chosen the most sensitive indicator for monitoring environmental iodine deficiency which was:
a) Prevalence of goiter
d) Urinary iodine excretion
b) Prevalence of myxedema
e) Prevalence of cretinism
c) Prevalence of neonatal hypothyroidism

Key: True: c
22. Government of Pakistan has accepted iron fortification to reduce prevalence of anemia; it has recently been decided to fortify:
a) Salt
d) Skimmed dried milk
b) Flour
e) Banaspati ghee
c) Sugar

Key: True: b
23. Flourosis develops when water fluoride content is above $15 \mathrm{mg} /$ lit but it has been observed after different studies that this flourosis can also develop in people whose staple diet is:
a) Wheat
d) Bajra
b) Rice
e) Maize
c) Jowar

Key: True: c
24. At 1:00 pm a mother got a phone call from the school to pick her son who was a student of III class, as he was having excessive vomiting. The child was taken immediately to the Hospital where he admitted that he had taken ice-cream in lunch break at 11:30 am. Most likely he was suffering from food poisoning due to:
a) Salmonella
d) Vibrio cholera
b) Shigella
e) Clostridium botulism
c) Staph aureus

Key: True: c
25. Researchers surveyed the causes of vitamin D deficiency and its geographic distribution. They found that exposure to ultra violet rays is crucial for its adequacy, which when get excessively filtered by the skin result in its deficiency. This deficiency is more common in:
a) Asians
d) Europeans
b) Mongoloids
e) Americans
c) Black Africans

Key: True: c
2638 years old man looking Jaundiced presented in emergency with bruises and hematuria. History revealed that he was having cholestatic Jaundice leading to vitamin K deficiency which had ultimately resulted in markedly decreased:
a) Prothrombin
b) Serotonin
c) Arachidonic acid
e) Von willebrand factor
d) Platelet derived growth factors

Key: True: a
27. District health officer visited local general stores in Gujranwala District. He found certain substandard products, Turmeric was found to be containing lead chromate powder and Coriander, cow dung. He reported to the health authorities that the foods in Gujranwala district are:
a) Intoxicated
d) Infected
b) Fortified
e) Containing additives
c) Adulterated

Key: True: c
28. 40 years old Bank officer was told to be having illeocecal Tuberculosis (Bovine after thorough investigation. He told the physician that he had no body infected with tuberculosis in the family, but he was told by the Doctor that he acquired this infection from:
a) Infected milk
d) Polluted water
b) Infected client
e) Intake of raw vegetables
c) Contaminated vessel

Key: True: a
29. An obese lady accountant working in POF hospital Wah Cantt came to the dietician there and took advice for a balanced diet. Dietician told that important point for prudent diet is that:
a) Dietary fat should be limited to 20-30\% of total intake
b) Unsaturated fats should be less than $10 \%$
c) Avoidance of complex carbohydrates
d) Proteins should account for 50-60\% of diet
e) Saturated fats should be substituted for fat requirement

Key: True: a
30. A man belonging to a poor community presents with diarrhea and dermatitis. He also shows signs of personality and memory dysfunction. His history suggests that his staple diet is maize. The likely diagnosis is:
a) Pellagra
d) Riboflavin deficiency
b) Korsakoff's psychosis
e) Biotin deficiency
c) Vitamin B12 deficiency

Key a
31. Riboflavin is an important group of water soluble vitamin. Cereals and pulses are relatively good sources of Riboflavin. Most common lesion associated with Riboflavin, which can also be used as an index of state of nutrition of group of children is:
a) Diahrroea
d) Dementia
b) Follicular keratosis
e) Dermatitis
c) Angular stomatitis

Key: c
32. A four year old child presented in an OPD with signs of edema on limbs, blond sparse hair and dermatosis. His weight was 70\% of the standard for his age. The likely condition is:
a) Nephrotic syndrome
d) Wet beriberi
b) Marasmus
e) Kwashiorkor
c) Seborrhoeic dermatitis

## Key: e

33. A chronic alcoholic was complaining of loss of appetite and pain in lower legs. On examination his gate was ataxia. He is suffering from deficiency of:
a) Niacin
d) Folate
b) Thiamine
e) Pantothenic acid
c) Riboflavin

Key: b
34. A mother brought her six years old child to Eye OPD with history of night blindness. She told that the baby suffered from measles 6 months ago. Examination revealed corneal scarring. The doctor should suspect deficiency of:
a) Vitamin $C$
d) Vitamin B
b) Vitamin A
e) Vitamin E
c) Vitamin D

Key: B
35. Riboflavin is an important group of water soluble vitamin. Cereals and pulses are relatively good sources of Riboflavin. Most common lesion associated with Riboflavin deficiency, which can also be used as an index of state of nutrition of group of children is:
a) Cheilosis
d) Nosolabial dyssberia
b) Glossitis
e) dermatitis
c) Angular stomatitis

Key: с

## Smoking

1. A 40 years old executive who smokes three packs of cigarettes a day comes to your office for his routine health maintenance assessment. He states that he would like to quit smoking but he is having great difficulty. He has tried three times before, but he says "pressure at work mounted up and I just had to go back to smoking". Of the following factors which is the most important factor in determining the failure of smoking cessation.
a) 40 years age
d) Halfhearted attempts to quit
b) Numbers of cigarettes
e) Type A Personality
c) Stress at work

Key: True: d
2. A 40 years old executive who smokes three packs of cigarettes a day comes to your office for his routine health maintenance assessment. He states that he would like to quit smoking but he is having great difficulty. He has tried three times before, but he says "pressure at work mounted up and I just had to go back to smoking". He just had to go back to smoking, the content of cigarette for this relapse is:
a) Nicotine level
d) Ketone
b) Tar content of the cigarette
e) Carboxylic acid
c) Aldehyde

Key: True: a
3. A 40 years old executive who smokes three packs of cigarettes a day comes to your office for his routine health maintenance assessment. He states that he would like to quit smoking but he is having great difficulty. He has tried three times before, but he says "pressure at work mounted up and $I$ just had to go back to smoking". The most suitable method to increase long term smoking abstinence is:
a) Nicotine chewing gum
d) Pan chewing
b) Sedation
e) Anxiolytic
c) Daily injection of Nicotine

Key: True: a
4. Cigarette smoking increases the risk of acquiring cancer of:
a) Liver
d) Uterus
b) Bones
e) Esophagus
c) Ovaries

Key: True:

## Non-Communicable Diseases

1. 5 students of 4th year of Wah Medical College are doing research on risk factors and their perception among patients of coronary heart disease. They have observed that risk factor which is most significantly associated with the incidence of CHD is:
a) Hypertension
d) Decreased physical activity
b) High serum cholesterol
e) Cigarette smoking
c) Alcoholism

Key: True: b
2. 20 years old gentleman presented to the emergency department with history of abdominal pain an after words loss of consciousness. His mother told that he was having polydipsia, polyphagia for last few days. His blood sugar was $700 \mathrm{mg} / \mathrm{dL} \&$ urinary ketones were positive. The likely diagnosis is:
a) Hyperosmolar coma
d) Diabetes insipidus
b) Diabetic ketoacidosis
e) Vasovagal syncope
c) Diabetes Mellitus type 2

Key: True: b
3. 45 years old male morbidly obese presented with history of polyuria \& polydipsia. His blood sugar is $240 \mathrm{mg} / \mathrm{dL}$. Most likely diagnosis is:
a) Diabetes Mellitus type 1
b) Diabetes Mellitus type 2
c) Maturity onset diabetes of young
d) Diabetes insipidus (neurogenic)
e) Diabetes insipidus (nephrogenic)

Key: True: b
4. 80 years old gentleman presented with sudden loss of consciousness. He is diabetic on oral hypoglycemic drugs. He has skipped his breakfast today. The first laboratory investigation would be:
a) Blood sugar level
d) EEG
b) ECG
e) Urinary glucose
c) Glycosylated hemoglobin

Key: True: a
5. 45 years old gentleman presents with a two week history of polydipsia, polyuria. He is found to have a random glucose of $200 \mathrm{mg} / \mathrm{dL}$. There are no ketones in the urine. Most suitable for this man is that he should be:
a) On regular hypoglycomics
b) Reassured \& reassessed after 2 months
c) On restricted diet \& reassessed after 10 days
d) Admitted to hospital
e) Immediately on Insulin therapy

Key: True: c
6. 49 years old black African male smoker with positive family history of hypertension presented with history of constant headache. His blood pressure was $140 / 90 \mathrm{mg} \mathrm{hg}$. The modifiable risk factor in this particular case is:
a) Male sex
d) Smoking
b) African race
e) Age
c) Positive family history

Key: True: d
7. An 80 kg 50 years old gentleman is found to have BP of $135 / 80 \mathrm{~mm}$ of Hg . The most important step included in primary prevention of hypertension in this patient is to:
a) Advise lipid profile
d) Take antihypertensive treatment
b) Reduce weight
e) Have monthly follow up
c) Ensure patient compliance

Key: True: b
8. 45 years old hypertensive bank manager is used to high salt intake in food. Which type of salt would be less harmful for this man?
a) Fluoride
d) Manganese
b) Potassium
e) Bromium
c) Chromium

Key: True: b
9. Use of oral contraceptives by women smokers over 35 years of age is associated with increased risk of:
a) Cervical cancer
c) Chronic bronchitis
b) Breast carcinoma
d) Coronary heart disease
e) Peripheral neuropathy

Key: True: d
10. A forty years old woman presents with an ovarian cyst; you want to screen her for breast cancer before suggesting any hormonal treatment. What will you advise?
a) Chest radiograph
d) Blood levels of progesterone
b) Mammography
e) Tumor markers
c) Biopsy of breast

Key: True: b
11. During a health education session about non communicable diseases in a female community; you will inform that genetics and family history make a woman more prone to have:
a) Cataract
d) Oral cancer
b) Stroke
e) Liver cirrhosis
c) Breast cancer

Key: True: c
12. Epidemiologist linked prevalence of carcinomas mostly related with parasitic and viral infections, in developing countries due to bad hygienic conditions. During the research strong linkage was proposed between carcinoma cervix and:
a) Cytomegalovirus
d) Helicobacter pylori
b) Human papilloma virus
e) Scistosoma Hematobium
c) Epstein bar virus

Key: True: b
13. Dietary factors have a strong influence on the development of carcinomas. A research article was read in Marriott Islamabad regarding this fact and gastric carcinoma was linked with:
a) High fat intake
d) Presence of nitrosamines
b) Beef consumption
e) High dietary fiber content
c) Smoked fish

Key: True: d
14. Japan has low incidence of prostate cancer as compared to the incidence in US. The incidence of carcinoma prostate decrease in Japanese when migrate to U.S. This support:
a) Nutritional effect
d) Metabolic effect
b) Environmental effect
e) Occupational effect
c) Genetic effect

Key: True: b
15. Japan has low incidence of prostate cancer as compared to the incidence in US. The incidence of carcinoma prostate in Japanese did not change with their migration to the U.S. It supported:
a) Nutritional effect
d) Metabolic effect
b) Environmental effect
e) Metabolic effect
c) Genetic effect

Key: True: c
16. A 10 years old boy presented with complaints of fever, accompanied by profuse sweating for the last 1 week. He also complained of multiple joint pains. Serum ASO titre was increase. The likely diagnosis is:
a) Malaria
d) Rheumatic fever
b) Dengue
e) Ricketts
c) Hepatitis B

Key: d
17. Cancer registration is important for any cancer control program. It provides a base for assessing the magnitude of problem and for planning the necessary action. If the size for a population based case registry is 6 million it is considered to be:
a) Inadequate
d) Very large
b) Very small
e) Unusually large
c) Adequate

Key: c
18. A 35 years old man hypertensive, smoker and having positive family history of diabetes and obesity suddenly became unconscious. CT scan was suggestive of hemorrhagic stroke. The main risk factor of stroke in this case is:
a) Hypertension
d) Smoking
b) Diabetes
e) Age
c) Obesity

Key: a
19. A 40 years old woman taking oral anti-diabetics for last 5 years, with poor control of blood sugar presented to physician for routine checkup. The test which provides a long term index of glucose control in this case would be:
a) Standard oral glucose test
b) Random blood sugar
c) Glycosylated hemoglobin
d) Urine sugar examination
e) Fasting blood sugar examination

Key: c
20. Cancer is the second leading cause of death in developed countries. It is regarded as a modern slow epidemic. The most common site of cancer in men and women in the world is:
a) Lung
d) Liver
b) Stomach
e) Oral cavity
c) Colorectal

Key: a
21. A 45 years old man has weight of 70 kg and height of 1.6 m . His BMI is 27.3 . He is:
a) Under weight
d) Obese
b) Normal weight
e) Severely obese
c) Over weight

Key: c

## Sexually Transmitted Diseases

1. A 25 years old female presented to a Gyaenacologist with complains of severe lower abdominal pain, dyspareunia and intermenstrual bleeding. On examination cervix was inflamed with mucopurulent discharge and contact bleeding. The most likely cause is:
a) Staphylococcus aureus
d) Trichomonas
b) Gonococcus
e) Treponema palidum
c) Chlamydia

Key: b
2. A 23 years old woman presented to a doctor with complaints of vaginal itching. On speculum examination it revealed white cheesy discharge adherent to walls of vagina with vaginal inflammation. The most likely causative organism is:
a) Candida albicans
d) Condyloma accuminatum
b) Trichomonas vaginalis
e) Treponema palidum
c) Gardnerella sp .

Key: a
3. A sexually active female of age 23 years presented to a lady doctor with complaints of tenderness around the external genitals and high grade fever for the last 2 to 3 days. On examination it revealed small tender ulcers around urethra, vagina and perianal are inguinal lymph nodes were enlarged and tender. The most likely diagnosis is:
a) Anogenital warts
d) HIV
b) Genital herpes simplex
e) Vega bonds
c) Genital molluscum contagiosum

Key: b
4. A young man presented to a doctor in the emergency of Agha Khan Hospital Karachi with bilateral purulent conjunctivitis and high grade temperature, he gave the history of returning from Far East country where he had a sexual contact. On examination there was swelling of eye lids and conjunctiva and copious purulent discharge. On laboratory smear diplococcic were seen; these are:
a) Streptococci
d) Meningococci
b) Gonococci
e) H. influenzae
c) Staphylococci

Key: b
5. A 34 years old woman presented in the emergency department to a lady doctor with painful vulvar ulceration. On examination the ulcer had irregular margins with undermined edges. The ipsilateral inguinal lymph nodes were swollen and tender. The most likely diagnosis is:
a) Syphilis
d) Lymphogranuloma venereum
b) Herpes
e) HIV
c) Chancroid

Key: c
6. A 25 years old married woman came to a lady doctor with complaints of vaginal discharge with "fishy" odor and is particularly noticeable following coitus. On examination there was white homogenous discharge in vagina with no inflammation. The most likely diagnosis is:
a) Candida albicans
d) HIV
b) Bacterial vaginosis
e) Normal post-coital discharge
c) Trichomona vaginalis

Key: b

## School Health

1. A school child is diagnosed to have chicken pox. He should be isolated from other school children till:
a) The scabs fall off
b) Two days after the scabs are formed
c) Three days after the fever develops
d) Five days after the development of pustules
e) Seven days after the development of pustules

Key: True: a
2. Kyphosis and scoliosis occur in school children with the use of:
a) Zero desk
d) Zero and minus desk, both
b) Minus desk
e) Plus desk
c) Zero and plus desk, both

Key: True:
3. A teacher of 4th class brought her student to the school medical officer with complaints of gum bleeding and subcutaneous bruising for last few days. The student looked very pal The clinical picture represents deficiency of:
a) Tocopherol
d) Pyridoxine
b) Ascorbic acid
e) Cyanocobalamin
c) Thiamine

Key: b
4. A child of 6 presented to school medical officer with complains of fever, malaise and painful swallowing. On examination a diffuse swelling was observed on the sides of the face below and in-front of the ears. The doctor diagnosed him as a case of mumps. What is the most appropriate management for him?
a) Analgesics only
d) Antibiotics only
b) Active and passive immunization
e) Rest, analgesics and balanced diet
c) Passive immunization

Key: e
5. In a health education programme conducted at school about deficiency of micronutrients leading to various infections and high mortality. To avoid susceptibility of children to infection the vitamin supplement to be emphasized more is:
a) B 1
b) B 2
c) A
d) $D$
e) K

Key: c

## Drug Abuse (Substance abuse)

1. A 40 years old man was brought to hospital by his brother for gastritis. He also reported his brother's dependence on a substance. On examination he had signs of peripheral neuropathy and cirrhosis of liver. The likely abused substance is:
a) Alcohol
d) Tobacco
b) Cannabis
e) Cocaine
c) Caffeine

Key: True: a
2. Another name for superman's drug is:
a) Nicotine
d) Cocaine
b) Amphetamine
e) Marijuana
c) Ethyl alcohol

Key: True: b
3. Self-administration of drugs for non-medical reason in frequency and quantities that may impair an individual's ability to function effectively and may result in physical, social and emotional harm is best defined as:
a) Drug abuse
d) Drug addiction
b) Drug dependence
e) Hang over effect
c) Drug tolerance

Key: a

## MISCELLANEOUS

1. Which one of the following is required for the direct method of standardization?
a) Age specific death rates of the populations being compared
b) Number of persons in each age group of the compared population
c) Crude mortality comparison of standard population with the normal population
d) Life expectancy of the compared populations
e) Proportionate mortality of compared populations

Key: True: a
2. Which of the following rates is the most useful measure for comparing mortality of two populations?
a) Standardized death rate
d) Cause -specific death rate
b) Infant mortality rate
e) Proportional mortality rate
c) Crude death rate

Key: True: a
3. Standardized mortality rate are different from crude mortality rate because of difference in:
a) Recording of deaths
b) Utilization of health services
c) Places of residence
d) Age Composition of population being compared
e) Prevalence of diseases and health related problems

Key: True: d
4. When a researcher wants to prove an association between a particular food and skin cancer it is likely to be rejected for not having:
a) Specificity
d) Strength of an association
b) Consistency
e) Biological plausibility
c) Coherence

Key: e
5. If the association between two variables given by one researcher is replicated by other researchers too, then it has
a) Specificity
d) Temporal sequence
b) Consistency
e) Biological plausibility
c) Coherence

Key: True: b
6. Smoking results in many diseases other than lung cancer particularly, if it indicates causal association which characteristic it lacks?
a) Specificity
d) Consistency
b) Strength of association
e) Temporal sequence
c) Coherence

Key: True: a
7. An uneducated man of 30 , working in a cement industry, exhibiting bad personal hygiene, presents with acute diarrhea and dehydration. Many factors can play a role in this condition but the likely host factor to have caused this condition is:
a) Age
d) Occupation
b) $\operatorname{Sex}$
e) Bad personal hygiene
c) Education

Key: True: e
8. 10 cases of food poisoning had been reported in hospital, 2 out of these developed mild gastrointestinal symptoms, 4 developed moderate dehydration but recovered and 2 succumbed to the disease. The characteristic of the organism of food poisoning that produces the severest form of the disease is:
a) Infectivity
d) Communicability
b) Pathogenicity
e) Resistibility
c) Virulence

Key: True: c
9. Shortly after a dormitory barbeque at Wah medical college, students came back to their rooms and most of them ( 62 out of 74 students) experienced acute vomiting and diarrhea. This epidemic may be labeled as:
a) Point source
d) Slow epidemic
b) Propagative
e) Pandemic
c) Multiple exposure common source

Key: True: a
10. Ten days after a measles outbreak in Wah Cantt, several elementary school children became symptomatic. Subsequently, additional cases were found among friends and families of the infected students. This epidemic may be known as
a) Point source
d) Pandemic
b) Propagative
e) Vector borne
c) Common source

Key: True: b
11. After returning home from a family planning clinical, Dr. Saeed noticed a slight itching between his fingers. Within 2 days his wife had similar itching, as did his son one day later. This epidemic (scabies) may be classified as:
a) Point source
b) Indirect transmission
c) Common source
e) Vehicle borne transmission
d) Serial transmission

Key: True: d
12. If an epidemiologist while investigating an epidemic makes a graph to plot distribution of cases of a disease by time of onset and gets a polymodal distribution curve. The most likely disease is:
a) Salmonellosis
d) Typhoid
b) Staphylococcal food poisoning
e) Hepatitis A
c) Measles
f) Key: True: c
13. Public Policies in Pakistan aim at avoiding the underlying reasons for the development of environmental and atmospheric concentration of SO2 to protect the health of peopl It?s an example of:
a) Primordial
d) Rehabilitation
b) Primary
e) Screening
c) Secondary

Key: True: a
14. The number of deaths due to diarrhoea, total cases of measles, total number of accidents and the total number of drug addicts were to be reported by a researcher. The best title given to all of this data would be:
a) Mortality data
d) Addiction rate
b) Morbidity data
e) Health related data
c) Case fatality rate

Key: True: e

## Parasitology

1. A 30 years old man resident of central London presented to a Pakistan doctor working in king George hospital central London with complain of nausea, vomiting and abdominal pain for 1 day. He gave the history of a worm in stool with segmented body. Detailed history showed that he is a non-vegetarian and parks is the main food constituent most probably the worm passed in stool is:
a) Ancylostoma duodenale
d) T. saginata
b) Ascaris lumbricoides
e) Enterobius vermicularis
c) T. sollium

Key: True: c
2. A 30 years old man presented in urology OPD with complains of haematuria at the end of micturition not associated with pain, urgency or frequency urine $R / E$ was suggested of haematuria. Microscopic examination of the urine revealed presence of oval shaped eggs. Most probably he is suffering form:
a) Vesical calculus
d) Trichomonas vaginalis infections
b) Carcinoma bladder
e) Renal cell carcinoma
c) Urinary schistosomiasis

Key: True: c
3. The only reservoir of Ascaris lumbricoides (round worm) is:
a) Dogs
d) Birds
b) Cattle
e) Fish
c) Man

Key: True: c
4. A mother brings her four year old child to a doctor with a complaint of intense perianal itching. Despite being fed properly, he has not gained weight for the last few months. The likely condition is:
a) Entrobiasis
d) Ancylostomiasis
b) Ascariasis
e) Filariasis
c) Scabies

## Key: a

5. A patient presents with fever, rigors and chills. He complains of severe weakness and lethargy. His blood film is positive for ring forms of protozoa. The likely diagnosis is:
a) Malaria
d) Toxoplasmosis
b) Amoebiasis
e) Leishmaniasis
c) Balantidiasis

## Key: a

## Behavioral Sciences

1. Ganja is obtained from:
a) Coca leaves
d) Ergot alkaloid plant
b) Poppy seeds
e) Lathyrus sativus
c) Cannabis indica

## Key: с

2. The "abused drug" that causes sedation is:
a) Cocaine
d) LSD
b) Amphetamine
e) Mescaline
c) Opium

Key: c
3. Cigarette smoking increases the risk of acquiring cancer of:
a) Liver
d) Uterus
b) Bones
e) Esophagus
c) Ovaries

Key: e
4. Wearing a crash - helmet to prevent head injury while riding a motor-bike refers to:
a) Specific protection
d) Disability limitation
b) Health promotion
e) Rehabilitation
c) Early diagnosis \& prompt treatment

Key: True:
5. A 23 years old married woman came to the hospital in Gynae OPD with complaints of vaginal itching and discharge. Speculum examination of vagina revealed foul smelling greenish - yellow discharge. What is the likely diagnosis?
a) Candidiasis
d) Pelvic inflammatory disease
b) Trichomoniasis
e) Gonorrhea
c) Syphilis

Key: b
6. To control the rising incidence of non-communicable diseases, legislation based on tobacco control will be adopted to prevent onset of the risk behaviour. This prevention will be
a) Primordial
d) Disability limitation
b) Health promotion
e) Rehabilitation
c) Specific protection

## Key: a

6. A mother brings her 10 year old boy to a psychiatrist. She complains that when her boy gets close to the school, he starts getting severe pain in the abdomen which settles upon coming back. His IQ is with in normal limits and his academic record is satisfactory. The clinical presentation is suggestive of
a) Juvenile delinquency
d) Educational difficulties
b) Psychosomatic disorder
e) Habit disorder
c) Mental retardation

## Key: b

7. A patient presented to a psychiatrist showing minor mental changes. He stated that he experienced rebound lowering in mood in the absence of the drug that he had been taking for constant mental stimulation. The likely drug which he had been taking is:
a) Benzodiazepines
d) Morphine
b) Heroine
e) Amphetamines
c) Methadone

Key e

## Mental health

1. A 30 years old man presented with complaints of loss of appetite and weight. He also admitted his dependence on a substance. On examination he had palmar erythema and ataxic gait. The likely abused substance is:
a) Barbiturates
d) Tobacco
b) Heroin
e) Cocaine
c) Alcohol

Key: c

## Disasters \& Accidents

1. In prevention of traffic accidents the most effective measure is:
a) Licensing of drivers
b) Provision of seat belts
c) Enforcement of traffic laws
d) Inspection of vehicles periodically
e) Medical inspection of drivers every six months

Key: True: c
2. October 2005 earthquake caused countless deaths. Several NGOs participated to combat the post disaster phase and the most important point they considered in order of preference was:
a) Vaccination against infectious diseases
b) Provision of safe water and food
c) Disposal of dead bodies
d) Disposal of solid wastes
e) Vector control

Key: c
3. The approach of rapidly classifying the injured on the basis of severity of their injuries and likelihood of their survival with prompt medical intervention after disaster is called as:
a) Search, rescue and first aid
d) Rehabilitation
b) Field care
e) Triage
c) Tagging

Key: e
4. After an earth quake disaster in "Bala Kot" many camps were laid for the effected people. The latrine of choice for camps of short duration is:
a) Aqua privy
d) Chemical closet
b) Trench hole
e) RCA latrine
c) Pit latrine

Key:

## Entomology

1. A mother noticed that her 3 year old boy recently admitted in play group class at Lahore grammar school was scratching his scalp for the last one week. While combing his hair she noticed small white ovoid nits. The most effective treatment for this condition is use of topical solution containing:
a) $0.05 \%$ Malathion
d) Mineral oil
b) DDT
e) Paris green
c) HCH

Key: True: a
2. A medical officer working at BHU in the periphery of Baluchistan noticed that most of the people presented with painful cutaneous ulcers on the exposed parts of the body. Almost all of them gave history that it started as a granular nodule after some insect bit. The medical officer realized that they had been bitten by:
a) Aedes Aegypti
d) Ornithotorous Moubata
b) Phelbotomus
e) Glossinae palpalis
c) Xenopsylla cheopsis

Key: b
3. A man reports with fever and rigors; chills and lethargy: His blood CP is positive for crescent like structures related to a parasite involved in the above picture: Which arthropod comes to your mind as a transmitter of this disease:
a) Mosquito
d) Mite
b) Louse
e) Flea
c) Tick

Key: a

## Hospital Waste

1. A hospital wants to set up a method for sage disposal of infectious waste. They have enough expense. What should be the best option for them?
a) Single chamber incinerator
b) Double chamber Paralytic incinerator
c) Microwave irradiation
d) Seven feed technology
e) Chemical disinfection

Key: b

## Miscellaneous

1. In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing endometrial cancer, a cohort of 1000 women were followed for 5 years. The results were as follows:

Present Absent
A 245
B 75
C 50

D 630
$A+C=295 B+D=705 n=1000$

What is the incidence rate (absolute risk) of endometrial cancer among who didn?t use oral contraceptives?
$630 /(50+630)$
$75 /(245+75)$
$50 /(50+630)$
$245 /(245+75)$
Insufficient data
Key: True: c 50/(50 + 630)
2. In an outbreak of cholera in a village of 2,000 population, 20 cases have occurred and 5 die Case fatality rate is:

1\%
.25\%

5\%
25\%
.0025\%

Key: True: d
3. In a population of 1000 , measles coverage is $60 \%$, one child goes out of station and comes back with measles from whom 20 more children get measles. Secondary attack rate of measles is:
0.65\%

5\%

6\%
6.5\%

7\%
Key: True: b

1. Total No. of children=1000
2. No. of immunized $=600$
3. No. of un-immunized=400
4. Primary case=1
5. Secondary attack rate $=20 /(400-1)=20 / 399 \times 100=5 \%$
6. If an epidemiologist while investigating an epidemic makes a graph to plot distribution of cases of disease by the time of onset and gets a polymodal distribution curv The most likely disease is:

Salmonellosis
Staphylococcal food poisoning
Measles

Typhoid
Hepatitis A
Key: True: c
5. In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing endometrial cancer, a cohort of 1000 women were followed for 5 years. The results were as follows:

Present Absent
A 245
B 75
C 50

D 630
$A+C=295 B+D=705 n=1000$
What is the incidence rate (absolute risk) of endometrial cancer among women who used oral contraceptives in person-years? If the study was carried out for five years.
$630 /(680 \times 5)$
$75 /(320 \times 5)$
$50 /(630 \times 5)$
$75 /(320+5)$
$245 /(320 \times 5)$
Key: True: e 245 / (320 x 5)
6. 10 cases of food poisoning had been reported in hospital, 2 out of these developed mild gastrointestinal symptoms, 4 developed moderate dehydration but recovered and 2
succumbed to the diseas The characteristic of the organism of food poisoning that produces the severest form of the disease is:

Infectivity
Pathogenecity
Virulence
Communicability
Resistibility
Key: True: c
7. Public Policies in Pakistan aim at avoiding the underlying reasons for the development of environmental and atmospheric concentration of SO2 to protect the health of peopl It?s an example of

Primordial
Primary
Secondary
Rehabilitation
screening
Key: True: a
8. Influenza pandemic occurs after every 7-10 years. This kind of disease distribution in time is known as:

Secular trend
Short time fluctuation

Cyclical trend
Seasonal trend
Endemicity

Key: True: c
9. In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing endometrial cancer, a cohort of 1000 women were followed for 5 years. The results were as follows:

Present Absent
A 245

B 75

C 50

D 630
$A+C=295 B+D=705 n=1000$
What is the relative risk in this study?
[75 / (245 + 75)] / [50 / (50 + 630)]
$[75 /(245+75)] /[630 /(50+630)]$
$[50 /(245+50)] /[630 /(75+630)]$
[245 / (245 + 75)] / [50 / (50 + 630)]
Insufficient data
Key: True: d [245 / (245 + 75)] / [50 / (50 + 630)]
10. If the age incidences curve of leukemia shows two peaks it is suggestive of bimodality. Bimodality usually signifies:

Non homogeneity
Cluster sampling
Large number of observations
Accuracy
Short duration of disease
Key: True: a
11. A doctor is required to study the incidence of silicosis in a stone cutting industry, which study design should he choose:

Longitudinal
Cross-sectional
Ecological surveys
Case reports
Case series report

Key: True: a
12. The health statistics department revealed that the sale of anti-Asthma drugs was more in those countries where Asthma deaths were mor This association may prove wrong when the individual based study designs are conducte This association is an example of:

Ecological fallacy
Berkesonian bias

Indirect association
Temporal association
Specific association
Key: True: a
13. A researcher wanted to study the time sequence to prove the concept of causativity, which design of study should be preferred by the researcher:

Longitudinal
Cross-sectional

Case report
Case series report
Quasi experimental
Key: True: a
14. Smoking leads to esophageal carcinom Coffee intake has its effect on smoking and also esophageal carcinom This factor can distort the results of the study which intends to prove an association between smoking and esophageal cancer. This effect of this factor is known as:

## Confounding

Multiple causation
One to one relationship
Dose response relation
Strength of association
Key: True: a
15. The health authorities are launching a smoking cessation program by designing different activities for the smokers. These are very expensive but still useful as a large proportion of lung cancer will be eliminated if smoking is stoppe This proportion of lung cancer can be indicated by:

Relative risk
Prevalence

Attributable risk
Attributable fraction
Incidence density
Key: True: d
16. A researcher was studying maternal mortality in Rawalpindi District. He observed more deaths in women who were brought to hospital and without taking other factors into account concluded that hospital managed cases have more mortality as compared to home deliveries. This is an example of:

Indirect association
Relative risk

Spurious association
Attributable risk
Causal association

Key: True: c
17. In 2005, Pakistan crude birth rate was 36 births per 1000 population and the crude death rate was 9 deaths per 1000 population. What was the population growth rate of the country in that year assuming no migrations?
2.9 \%
2.8 \%
$2.7 \%$
2.6 \%
2.5 \%

Key: True: c
18. The changes in the size of population are indicated by five stages of demographic transition. Pakistan is currently in the:

First stage
Second stage
Third stage
Fourth stage
Fifth stage
Key: True: b
19. The total number of people in a completed family can be estimated from:

Net reproduction rate
Gross reproduction rate
Contraception prevalence rate
Eligible couple rate
Total fertility rate
Key: True: e
20. Population size is determined by fertility, mortality and migrations. A researcher concluded that Pakistan?s population is increasing on account of high fertility which measure did he rely upon the most to conclude this?

Growth rate
Crude birth rate
Natural increase rate
Total fertility rate
General fertility rate
Key: True: d
21. The number of daughters a new born girl will bear during her life time assuming fixed age specific fertility and mortality rate, refers to which one of the following?

Age specific fertility rate
Gross reproduction rate
Net reproduction rate
Total fertility rate
General fertility rate
Key: True: c
22. Keeping in mind the population pyramid of Pakistan. Which of the following features is most obvious?

Population momentum
Low migration
Higher female mortality
High literacy
Increased life expectancy
Key: True: a
23. If the total number of reported births in Rawalpindi district were 10,000 and deaths were 5,000 in the year 2007. By giving these figures we are referring to:

Absolute numbers
Crude birth rate
Growth rate
Crude death rate
Vital index
Key: True: a
24. Many women in a country are educated, independent and they work for earning their lively hood too. When the number of males are expressed in relation with 100 females this is:

Sex ratio

Sex rate
Dependency ratio
Literacy rate
Working women ratio
Key: True: a
25. Doubling time is another way of expressing population growth. If we suppose that growth rate of Poland remains constant at $0.08 \%$ population would be doubled in about.

800 years
870 years
875 years
880 years
890 years
Key: True: c
26. Demographic cycle has five stages and each country is allotted a different stage according to its distribution of population. For examples if the death and birth rate of a country both are declining then we call it as:

High stationary
Early expanding
Late expanding
Low stationary
Declining
Key: True: c
27. Diarrhoeal cases among children of an urban slum are on a ris Almost all the mothers are illiterate and belong to lower socioeconomic class. It seems difficult to make them understand the use of ORS. What method can provide the best solution in this scenario?

Role playing
Poster competition
Radio Programme
Lectures

## T.V commercials

Key: True: a
28. A school child is diagnosed to have chicken pox. He should be isolated from other school children till:

The scabs fall off
Two days after the scabs are formed
Three days after the fever develops
Five days after the development of pustules
Seven days after the development of pustules
Key: True: a
29. In a community, identification of high risk individuals for coronary heart disease and the prevention of risk factors is an example of:

Surveillance
Research
Selective screening
Mass screening
Opportunistic screening
Key: True: d
30. In a village the persons between the ages of $30-50$ years were checked for their fasting blood sugar levels, to detect diabetes Mellitus before the appearance of signs and symptoms. The time interval between diagnosis by early detection and diagnosis due to development of signs / symptoms is called:

Incubation period
Lead time

Serial interval
Latent period
Generation time

Key: True: b
31. Glucose tolerance test is a useful screening test for diabetes. The ability of the test to identify those who have the disease in question is called:

Validity
Yield
Reliability
Sensitivity
Specificity
Key: True: d
32. In a population consisting of 1000 females, Gram-stained cervical smear test was performed to detect gonorrhoe In this example the predictive value was calculated to be $47 \%$, sensitivity $50 \%$ and specificity $90 \%$. The diagnostic power of the test is reflected by:

Sensitivity
Specificity
Predictive value
False negative rate
Accuracy
Key: True: c
33. In a population under study there were 75 cases of hypertension. On further screening another 50 cases were added to the total owing to the characteristic of the test called:

Acceptability
Repeatability
Reliability
Sensitivity
Accuracy
Key: True: d
34. A 22 years old boy was appointed as computer operator in a factory. During his medical examination he was found to be HIV positiv This screening is:

Multiphasic
Targeted
Research
Mass
Opportunistic
Key: True: e
35. For screening of breast cancer self examination by women, mammography and fine needle aspiration were used at the same time in PIMS Islamaba This screening is an example of:

Multiphasic
Targeted
Research

Mass

Opportunistic
Key: True: a
36. The yield of a screening test was increased over a period of 5 years although the trade off between sensitivity and specificity remained the sam It is likely to have increased by increase in:

Validity
Accuracy
Prevalence

Incidence

Reliability
Key: True: c
37. The chest X-rays and sputum analysis for the early detection of tuberculosis constitute:

Primary prevention
Secondary prevention
Tertiary prevention

Medical treatment

Primordial prevention
Key: True: b
38. With X representing the most accurate cut off point for a diagnostic screening test, what does C represent:

## False positives

True positives
False negatives
True negatives
Skewed distribution
Key: True: c
(For question 39-46 please refer to following tabl
39-46. An investigator evaluated 150 patients suffering from sore throat for streptococcal infection. The results were as follows:

27
35
10

78
:
39. The ability of the test to correctly identify those who have the disease is:

71\%
72\%
73\%

74\%

75\%
Key: True: c
40. The ability of the test to correctly identify those who do not have the disease is:

65\%
66\%

67\%
68\%
69\%
Key: True: e
41. The ability of the test to correctly identify those who have the disease from all those who test positive:
41.5\%
42.5\%
43.5\%
44.5\%
45.5\%

Key: True: c
42. The ability of the test to correctly identify those who do not have the disease from all those who test negative:
85.6\%
86.6\%
87.6\%
88.6\%
89.6\%

Key: True: d
43. The prevalence of disease in this study is:
24.7\%
25.7\%
26.7\%
27.7\%
28.7\%

Key: True: a
44. The accuracy of this screening test is:

60\%
65\%
70\%

75\%

80\%
Key: True: c
45. The false-positive rate in this study is:

31\%
32\%
33\%

34\%
35\%
Key: True: a
46. The false negative rate in this study is:

25\%
26\%

27\%
28\%
29\%
Key: True: c
47. 45 Years old man was brought to emergency department of hospital with history of snake bit There was intense local pain, swelling and ecchymosis at site of bit Few hours
later bleeding started from the gums, followed by coma and death. The type of snake involved is:

Sea snake

Common krait
Green pit viper

Cobra

Coral snake
Key: True: c
48. A 30 years old lady is bitten by a snak She complains of giddiness, lethargy, muscular weakness and spreading paralysis. The type of snake involved is:

Sea snake
Green pit viper
Elapid snake
Bamboo snake

Russell?s viper
Key: Tue: c
49. A 7 years old child reported to a private hospital with history of snakebit On examination there were petechial haemaorrhages and bleeding from rectum. The toxic principal in snake venom responsible for those signs is:

Proteolysin
Neurotoxin

Cholinesterase
Hyaluronidase
Thromboplastin

Key: True: e
50. Six of the ten family members living in a single room house complain of intense itching with scratching in axillae, groin \& hands; it is more marked at night. The most likely diagnosis is:

Scabies
Dermatitis

## Eczema

Psoriasis
Dermatosis
Key: True: a
51. While conducting a house hold survey 4th year students of Wah Medical College collected Data of ten families regarding no of persons in four age groups $<5,5-14,15-64,>65$. They want to present the \%age distribution of different age groups. The \%age can be depicted by:

Pie chart
Pictogram
Histogram
Line diagram
Scatter diagram
Key: True: a
52. In a study about control of DM II by the oral hypoglycemics. The mean fasting blood sugar level of 150 patients was $100 \mathrm{mg} / \mathrm{dl}$. With standard deviation of $10 \mathrm{mg} / \mathrm{dl}$. From the data FBS of $99 \%$ patients of the given sample will be in the range of:

```
70-130 mg/dl
80-120 mg/dl
90-110 mg/dl
100-130 mg/dl
```

$70-100 \mathrm{mg} / \mathrm{dl}$

Key: True: a
53. In a study involving 120 hypertensive patients at POF hospital Wah Cantt. The mean serum cholesterol level was found $180 \mathrm{mg} / \mathrm{dl}$ with a sample variance of $25 \mathrm{mg} / \mathrm{dl}$ from the data $2 / 3 \mathrm{rd}$ of patients will have serum cholesterol $\mathrm{mg} / \mathrm{dl}$ in the range of:

175-185
170-190
165-195
180-185

180-195
Key: True: a
54. 200 patients of hepatitis B got admitted in the medical unit of POF hospital Wah Cantt in the year 2007. their serum bilirubin was don The results were as follow:

Mean $=9 \mathrm{mg} / \mathrm{dl}$
Median $=6.5 \mathrm{mg} / \mathrm{dl}$
Mode $=4 \mathrm{mg} / \mathrm{dl}$
The distribution of bilirubin level is:

Normal
Positively skewed
Negatively skewed
Bimodal

Polymodal
Key: True: b
55. In a class of 100 students the mean height of students was 5 feet with the standard deviation of 1 feet. The portion of students that will have height 7 feet would be:

68\%
34\%
13.5\%

5\%
Key: True: d
56. In 2007 a study was conducted at Wah Cantt to see the efficacy of measles vaccin 50 new cases of measles were reported after vaccination in the year 2007. This reported data is:

Discrete
Continuous
Nominal
Ordinal
Ranked
Key: True: a
57. In a follow up study of five patients admitted to the coronary care unit with a diagnosis of acute MI. The length of stay was found to be $5,8,3,5$ and 9 days. The arithmetic average of the given data is:

3

5

6
5.5

7

Key: True: c
58. A study was conducted to determine the risk of DM II in over weight patients. The sample of 500 patients was taken. The weights were recorde Most of them were found obes Such type of data can be depicted by:

Histogram
Polygon

Line diagram
Pie chart
Scatter diagram
Key: True: a
59. In a study conducted about the choice of oral contraceptive among women of different ages. A sample of 100 women between the ages of $25-45$ years was taken by convenient metho Out of 100 women, 65 women preferred OCPS. Among them $68 \%$ women were between ages of $25-$ $35 y e a r s .5 \%$ of women were between $35-40$ years. The proportion of women that will have age between 40-45 years is.

## 16\%

27\%
25\%
34\%

## 13.5\%

Key: True: b
60. An FCPS part II trainee in Medicine has done a research at POF hospital to prove that NPH insulin has better control of DM II than regular insulin. The calculated $P$ value was 0.03 , while the standard for accepting the different was at $P$ value of 0.05 , so he rejected the null hypotheses, what do you think of results.

Alternate hypothesis is correct
Null hypothesis is true
Sample size was small
Null hypothesis wrongly rejected
Insignificant difference
Key: True: a
61. The female students of 4th year conducted a study "Perceptions of mother about neonatal jaundice" they went to paedeatric OPD and ward and took sample of 100 available mothers. Such type of sampling technique is:

Systematic
Random
Stratified

Convenient
Cluster
Key: True: d
62. The four blood groups $A, B, O$ and $A B$ were studied to compare the quantitative serologic different among their antigenic structures. The most appropriate statistical test to make this determination is:

T test
F test

Chi square test
Z test
Coefficient of variance
Key: True: b
63. A physician studied the association between plasma level of rennin and changes in BP. The data can be represented by:

Scatter diagram
Pie chart
Line diagram
Histogram
Bar chart
Key: True: a
64. A study was conducted to see the risk of hepatocellular carcinoma among alcoholi A sample of 100 was taken. Among them 50 were alcoholic and 50 were non alcoholi 10 developed Ca out of which 8 were alcoholic and 2 were non alcoholi Data was arranged in $2 \times 2$ table:

## CA Present Ca Absent

8

42

2

48
$1090 \mathrm{n}=100$
How would you determine the statistical significance of the observed findings.
T test

Z test

F test
Chi square test
Standard error of mean
Key: True: d
65. Of all new cases seen at the curative consultation only new cases with a priority health problem, are reported by the health facility in the monthly FLCF report. The disease included in the list of priority health problems in Pakistan is:

Typhoid
Myocardial infection
Diabetes mellitus
Hypertension
Malaria

Key: True: e

1. The commonest physical health hazard in most industries is:

Heat

Noise
Humidity
lonizing radiation
Light
Key: a
2. A worker of a brick kiln was brought to the emergency department, in an unconscious stat He was hypotensive and sweating profusely. The likely condition he suffered from was:

Heat stroke
Heat exhaustion
Erythrocyanosis
Heat Hyperpyrexia
Heat cramps
Key: b
3. Pottery industry worker developed Tuberculosis. The likely condition which made him prone to tuberculosis was:

Anthracosis
Asbestosis
Begassosis
Silicosis
Byssinosis
Key: d
4. A shipyard worker presents with increasing breathlessness. His X-ray shows ground glass appearance in lower two thirds of lungs. He is likely to be suffering from:

Anthracosis

Silicosis
Asbestosis
Farmer?s lung

Byssinosis
Key: с
5. A research team conducted a nation wide survey of Industries and factories. While arranging the data they observed that the most common occupational cancer was:

CA lung
CA bladder
CA skin
Leukemia
Cancer of Gastrointestinal tract.

Key: c
6. Most important reason for recommending oral polio vaccine in the polio eradication campaign despite availability of a safe injectable vaccine is that, it:

Provides 90\% immunity in one dose
Does not interfere with vertical immunity
Has been donated by WHO
Provides herd immunity
Has less side effects

Key: d
7. A 5 year old child comes to the immunization centre without BCG scar on his arm. It is advisable to give:

BCG vaccine
No BCG vaccine

## Chemoprophylaxis

BCG if Mantoux test positive
BCG if Mantoux test negativ
Key: e
8. A woman reports for vaccination against Tetanus only 25 days before delivery; she has not received the first dos What will you give?

ATIG at present
Two doses of T.T ,2 weeks apart
Antibiotic during delivery
T.T1 at present and T.T2 after delivery

ATIG after delivery
Key: d
9. A patient is suffering from AIDS. He is suffering from suppression of which of the following cells?

Monocytes
T-Cells.
B-Cells
CD4 Cells
Eosinophils
Key: d
10. 2 years old child was brought to the emergency department. He was having convulsions. On a rapid general physical examination, kyphoscoliosis was discovere X-ray forearm showed swollen lower end of radius. The likely diagnosis was:

Osteomalacia
Keratomalacia
Rickets

Beriberi

Key: c
11. Strictly vegetarian Hindu teacher presented with lower limbs weakness. His examination revealed upper motor neuron signs in lower limbs. His blood CP showed macrocytic anemi He is probably suffering from deficiency of vitamin:

A

B6

B12
B1

D

Key: c
12. 15 years old boy, resident of Murree is having swelling in the neck. Apart from weakness and constipation; there are no other complaints at present. He is likely to be suffering from deficiency of:

Calcium

Fluorine

Iodine

Iron

Sodium

Key: c
13. The non clinical Vit A deficiency is more common as compared to the clinical, threatening the health of as many as one third of the world?s children. The best proxy indicator of this can be:

Infant mortality rate
Maternal mortality rate
Literacy rate

Proportion of the rural population
Specialized medical care
Key: a
14. A 4 years old child was brought to a Pediatrician with complaint of inability to see at night for the last few days. Presence of only one sign at that stage made him diagnose vitamin A deficiency. The sign was:

Retinal detachment
Conjunctival xerosis
Bitot?s spot
Corneal xerosis
Keratomalacia
Key: b
15. Fluorosis develops when water fluoride content is above $15 \mathrm{mg} /$ lit but it has been observed after different studies that this fluorosis can also develop in people whose staple diet is:

Wheat
Rice
Sea fish
Vegetables
Maize

Key: c
16. Researchers surveyed the causes of vitamin D deficiency and its geographic distribution. They found that exposure to ultra violet rays is crucial for its adequacy, which when get excessively filtered by the skin result in its deficiency. This deficiency is more common in:

Asians
Mongoloids
Black Africans

## Europeans

Americans
Key: c
17. 50 years old Bank officer was told to be suffering from illeocecal Tuberculosis. Nobody suffered tuberculosis in the family, but he still got infected, probably due to:

Infected milk

Infected clients
Contaminated vessel

Stressful work

Advancing age
Key: a
18. A school child is diagnosed to have chicken pox. He should be isolated from other school children till:

The scabs fall off
Two days after the scabs are formed
Three days after the fever develop
Five days after the development of pustules
Seven days after the development of pustules
Key: a
19. In Pediatric OPD the physician examined a 3 years old child with low grade fever, mild erythema in the throat and grayish adherent membrane on the left side tonsil. The cervical lymph nodes were palpabl He advised the mother to isolate the child from the remaining children below 5 years of age for at least 14 days. The likely disease was:

Pharyngitis
Tonsillitis
Diphtheria

Acute Laryngitis
Whooping cough
Key: с
20. A 10 years old boy was brought to a doctor with history of moderate fever and shivering. Abundant rash was found on the trunk and buccal mucos Vesicles filled with clear fluid were also seen on the trunk and legs. The physician told the mother that he was suffering from:

Herpes

## Chicken pox

Rubeola
German measles

Cutaneous Diphtheria
Key: b
21. After an epidemic of measles in a village near Taxilla, 2 children reported with history of weight loss and blindness, from corneal scarring. The most likely cause of this complication is deficiency of:

Vitamin K
Vitamin D
Vitamin A

Vitamin C
Vitamin B12
Key: с
22. A person was travelling to the yellow fever endemic area for the third tim He came to the health facility to get advice about revaccination against yellow fever. The doctor advised:

Reimmunization with yellow fever vaccine
Non specific passive immunization
No immunization but personal protective measures.

Immunization with Personal protective measures

## Chemoprophylaxis

Key: c
23. A pregnant lady reported to ante natal clinic with signs and symptoms of Rubella during 28th week of gestation. She was insisting upon the termination of pregnancy as she feared congenital malformations of fetus. Doctor told her that maximum time for Rubella to cause major abnormalities of the fetus during pregnancy is till:

8th week
12th week

16th week

20th week
24th week

Key: c
24. A 7 years old child presented with sore throat and low grade fever. He had rash on face and posterior auricular as well as cervical lymphadenopathy.The most probable diagnosis is:

Chicken pox
Small pox
Measles

Rubella
Mumps
Key: d
25. You are performing the duties of Airport Medical Officer. An Aircraft has landed from Africa and you find that one of the passengers is not having the vaccination certificate against yellow fever. What would you suggest for him?

Vaccination

Quarantine for 10 days

Isolation for 1 month
Chemoprophylaxis
Passive immunization.

Key: b
26. A 25 years old lady was brought in gynae emergency of PIMS hospital at Islamabad with high grade fever, stiffness of whole body and locked jaw. Her mother gave the history that she got an abortion done at 8 th week of gestation by a local Dai 3 days ago. The per-vaginal examination revealed foul smelling purulent discharg What is the most probable diagnosis?

Puerperal tetanus
PID
UTI
Strychnine poisoning
Vaginal diphtheria
Key: a
27. A 3rd year MBBS student of FUMC presented in ENT OPD with complains of sore throat, pain on swallowing \& low grade fever. After examination the doctor confirmed the diagnosis of diphtheri The isolation period recommended for this patient is till:

Six daily negative throat and nasal swabs cultures
Disappearance of signs \& symptoms
Completion of antibiotic course
Negative chest radio graph
Complete blood picture becomes normal

Key: a
2824 years old sexually active female comes to a doctor with 2 days history of dysuria accompanied with painful genital lesions. On examination there were few vesicles and tender ulcers seen on vulva and vagin What is the likely diagnosis?

Herpes simplex infection

Chancroid
Human papilloma virus infection
Granuloma inguinale
Primary syphilis
Key: a
29. A 28 years old married woman was brought to the hospital with a 2 weeks history of "growths" in the vulvar region. On examination there were multiple cauliflower verrucous lesions on the labia majora and minor What is the most likely diagnosis?

Condylomata lata
Condylomata acuminata
Herpes simplex type - 1
Herpes simplex type - II
Chancroid

Key: a
30. A pregnant woman comes to hospital as an emergency cas After preliminary examination she is found to be suffering from Gonorrhe The transmission of this infection to the baby should be prevented as he may suffer from:

Ophthalmia neonatorum
Genital infection
Generalized septicemia
Skin infection
Thrush
Key: a
31. There is an epidemic of Meningococcal Meningitis among jail prisoners. The best chemoprophylaxis for the protection of contacts is by giving:

Rifampicin

Chloramphenicol
Chloroquine
Doxicycline

Penicillin

## Key: a

32. Intermittent water supply system existed in a shanty town of Karachi. A woman noticed lots of black and spotted mosquitoes, around the water tank. Keeping in mind the situation which disease might affect that family?

Dengue
Yellow fever

Malaria

Filariasis
Encephalitis

Key: a
33. A mother brought her child to a doctor and complained about his problem of severe itching and restlessness at night. Examination revealed presence of burrows and vesicles especially on sides of fingers and finger webs. What is the likely diagnosis?

Scabies

Insect bite
Prickly heat
Ring worm
Onchocerciasis

Key: a
34. A woman working in an industry during night shifts is exposed to 750 lx of light. She is most probably at risk of acquiring:

Keratomalacia

Breast cancer
Dermatitis
Conjunctival xerosis
Night blindness
Key: b
35. A 40 years old man was brought to hospital with gastritis; he gave history of dependence on a substanc On examination he had signs of peripheral neuropathy.USG of abdomen revealed cirrhosis of liver, the likely substance was:

Alcohol
Cannabis

Caffeine

Tobacco
Cocaine

Key: a
36. The population living in Wah Cantt is using water from a deep spring, which is considered to be relatively free from organic contamination but rich in calcium, bicarbonates and sulphates. On account of these properties, people of Wah enjoy protection against:

Gastroenteritis
Ancylostomiasis
Atherosclerosis

Renal problems
Alzheimer?s disease

Key: c
37. An unsanitary bore-hole latrine with lots of flies is present within 10 feet of a well in a villag The disease more likely to be transmitted through drinking this well water is:

Leishmaniasis

Typhoid
Dental caries
Ancylostomiasis
Trachoma

Key: b
38. Child of 5 years has been drinking water containing $30 \mathrm{mg} / \mathrm{L}$ of nitrates and $0.5 \mathrm{mg} / \mathrm{L}$ of fluorid He presents with cyanosis to the hospital. He is likely to be suffering from:

Infantile Methemoglobinemia
E-coli enteritis

Botulism
Dental caries
Enterobiasis
Key: a
39. Required amount of chlorine was added to a large body of water after sedimentation. The pH of water was 4.0 and level of sulphides was negligibl A contact period of one hour was ensure Eventually, it was found that chlorination was not successful. The likely reason was:

Low pH
Less contact time
Less amount of chlorine

Suspended impurities
Antagonism by sulphides
Key: a
40. 10 people were working on a project in an office with no cross ventilation and air conditioning on account of load shedding. The room temperature was 75\%F and humidity around $60 \%$. They started having discomfort after 1 hour because of:

Lack of air movements

Increase in Carbon monoxide
High Bacterial count
High Humidity
High temperature of air
Key: a
41. A water sample was taken from a source where catchment area included a large agricultural lan It was declared unfit for human consumption on account of raised concentration of:

Iodine

Calcium
Zinc
Chlorides
Nitrite

Key: e
42. During a sanitary inspection of a rapid sand filtration plant, slowing of the filtration rate was observed owing to loss of hea Which method will you suggest to give head to water in such a situation?

Addition of alum
Scraping the top layer
Increasing duration of storage
Back washing of sand bed
The addition of lime or soda ash
Key: d
43. You were required to chlorinate well water; you added required amount of bleaching powder solution to the water and allowed an overnight contact tim What is your recommendation regarding consumption of this water for drinking.

Fit for consumption

To be used after 12 hours
To be used after another 24 hours
Rechlorinate
May be used after boiling
Key: a
44. A dental surgeon appointed in rural health centre reports an increased incidence of dental carries in the children of that are The relevant preventive measure that he should suggest to the health authorities is:

Fluoridation of water
Chlorination of water
Use of bacterial filter
Use of boiled water
Softening of hard water
Key: a
45. Chlorination of water was done by addition of bleaching powder solution containing 10\% available chlorin One hour contact time was ensure What is your recommendation regarding use of this water for drinking?

Fit for consumption
Use after 06 hours
Use after 12 hours
To be used after another 24 hours
Rechlorinate
Key: e
46. An out-break of scabies was reported in a Kachi abadi consisting of 500 peopl The appropriate preventive measures suggested by you would be to:

Filter the water

Improve accessibility to water
Destroy breeding sites of insects
Chlorinate water
Avoid walking bare foot
Key: b
47. In a poor community, there is high prevalence of acute diarrhe The best method for preventing this health problem in the long run is:

Anti diarrheal drugs.
Immunization against cholera and typhoid
Provision of sanitary latrin
Use of boiled water.
Living in fly proof houses.
Key: c
48. A woman of 70 kg reports to a health facility at term. On examination her P was $130 / 90 \mathrm{~mm}$ of Hg ; fundal height was more than the gestational ag A large single baby was seen on ultrasound with no other fetal abnormality. The likely condition is:

Maternal diabetes
Hypertension
Obese mother
Hydramnios
Alcoholism in pregnancy
Key: a
49. A mother brings her one year old child to a health facility for growth monitoring. His reported birth weight was 3 kg and his present weight is 9 kg . His height is around 31 inches. You assess the child as:

Normal

Overweight
Stunted
Underweight
Slow growing
Key: a
50. A weight conscious pregnant woman wants information about her increased requirement of calories per day during pregnancy. You suggest an increase of:

250 kcal

350 kcal

450 kcal
550 kcal
650 kcal

Key: b
51. A woman of 40 in the seventh month of pregnancy reports to you in the antenatal clinic for the first tim The recommended immunization is by:

Tetanus Toxoid
Hepatitis B vaccine
Rubella vaccine
Pneumococcal vaccine
Tetanus immunoglobulin

Key: a
52. A 30 years old woman fitted with an IUCD comes for post insertional examination and complains of vaginal bleeding; which of the following is the least important to look for in this patient:

Break through vaginal bleeding
Hypermenorrhea

Pelvic infection
Dysmenorrhea
Endometrial cancer

Key: e
53. One year old child comes to emergency with history of watery diarrhea and high grade fever for the last 24 hours. A house physician observes his impalpable pulse and un-recordable blood pressur The first immediate step in emergency is to advise:

I/V Ringer?s lactate
Oral rehydration therapy
I/V antibiotics
Stool examination

Urgent blood complete picture
Key: a
54. A pregnant woman comes to hospital as an emergency cas After preliminary examination she is found to be suffering from Gonorrhe The transmission of this infection to the baby may be prevented by:

Aseptic delivery
Silver nitrate drops to baby
Oral antibiotics
Non specific immunoglobulin
Antibiotic injections
Key: b
55. A mother brought her six months old child to a BHU. She is worried about the growth of her chil The best single measure for assessing the physical growth in this age is:

Weight for age
Height for age

Head chest ratio
Mid upper arm circumference
Weight for height
Key: a
56. A woman delivers a baby boy at term with Down?s syndrom The most likely cause is:

An extra chromosome 21
No 2nd sex chromosome

Phenotypic effect only
Extra y chromosome
Oligo-spermia
Key: a
57. A primigravida of 34 years was labeled as hypertensive during the antenatal perio She had a normal vaginal delivery in the hospital. First stage of labour was for 5 hours. She had a post partum hemorrhage, the likely cause of which was:

Primary gravidity
Age of the mother
Hypertension
Long 1st stage
Untrained birth attendant
Key: c
58. The policy of delaying marriage of girls till 20 years of age belongs to:

Primordial prevention
Primary prevention
Secondary prevention
Disability limitation

## Rehabilitation

Key: a
59. Antenatal service for detection of diseases which may lead to complications in pregnancy is an example of:

Primordial prevention

Primary prevention
Secondary prevention
Disability limitation
Rehabilitation

Key: True: c
60. Use of oral contraceptives by women smokers over 35 years of age is associated with increased risk of:

Cervical cancer

Breast carcinoma

Chronic bronchitis
Coronary heart disease
Peripheral neuropathy
Key: d
61. A forty years old woman presents with an ovarian cyst; you want to screen her for breast cancer before suggesting any hormonal treatment. What will you advise?

Chest radiography
Mammography
Biopsy of breast
Blood levels of progesterone
Tumor markers

Key: b
62. A child of 1 year presents with muscle wasting, loss of subcutaneous fat with no signs of edema and weight below $60 \%$ of WHO standar The mother gives history of not giving enough proteins and other nutrients to the child after six months of ag The likely diagnosis is:

## Kwashiorkor

Marasmus
Marasmic kwashiorkor
Under nutrition
Vitamin B1 deficiency
Key: b
63. A woman reports at a health facility with labour pains at term. She is suffering from chicken pox. The measure taken to prevent chicken pox in the baby after birth is to give:

## Acyclovir to woman

Non specific immunoglobulin to baby at birth IKIH I
HZIG to baby at birth
HZIG to woman before delivery
HZIG and acyclovir to mother
Key: c
64. A woman from a rural area brought her 4 years old boy to peads OPD with complaints of weakness and worms in stool. She told that her son played in dirt and dust and had the habit of eating it. Clinical examination revealed pallor and blood CP was suggestive of iron deficiency anemi The most likely infection in this child is:

## Ancylostomiasis

## Botulism

Taeniasis

## Diphyllobothriasis

Scabies
Key: a
65. An old bagger living on a footpath in India presented to a doctor with history of gradual swelling of his right lower leg associated with pruritis. On examination his right leg was thrice the size of the left leg and overlying skin was also thickene The most probable cause of this unilateral swelling is:

Filariasis
Deep vein thrombosis
Trypanosomiasis
Cellulitis

Trauma
Key: a

1. To achieve the objective of HFA the most crucial aspect which was missing in the implementation of PHC program in Pakistan was:

Leadership
Registration system
Monitoring
Evaluation

Prioritization
Key: True: a
2. To improve the health of the nations, "The Millennium Development Goals" are mainly focused on:

Women education

Involvement of men in RH
Fertility regulation
HMIS

Health system research
Key: True: a
3. In 1978 a global immunization program EPI was started to vaccinate the children against six vaccine preventable diseases g TB, Polio, Diphtheria, Pertusis, Tetanus and Measles. It was specifically designed to control morbidity and mortality among children. This reflects:

Selective approach
Holistic approach to child health
Comprehensive PHC
Equality
Inter sectoral approach
Key: True: a
4. For eradication of Polio, the polio eradication campaign was started in 1992. Since then several NIDs and SNIDs have been conducte Polio has almost been eradicated now. This program of immunization is based on:

Equity and appropriate technology
Comprehensive PHC
Leadership \& Community participation
Equity and Equality
Community participation
Key: True: a
5. A good manager is the one who sees to the things and ensures correct way of doing things. If he ensures low wastage of resources he is:

Effective
Efficient
A monitor
A decision maker

Supervisor
Key: True: b
6. A 20 years old boy had a head injury in a motor bike accident. His attendant took him to a general practitioner first who advised them to take him to POF hospital, Wah Cantt immediately because Advanced Trauma Life Support is available there only. The level of health care provided by POF hospital in this case is:

Primary
Secondary
Tertiary
First level referral facility
First level care facility
Key: True: c

## KHIZZZER KHAN

7. An LHV in a BHU of a remote area examined a primigravida at 22 weeks of gestation. Her P was $170 / 100$. In order to have proper antenatal assessment and to prevent complications of pregnancy induced hypertension. The first level referral should be to:

BHU
THQ
DHQ
Teaching hospital
Specialized maternity clinic
Key: True: b
8. According to a study conducted by WHO, 3 new cases of polio were found in interior Sindh in year 2007 despite the success of anti polio campaign. None of the children under 5 years of age in the village was given polio drops because parents had to travel for 1 and $1 / 2$ hours on foot to reach the BHU. This incidence of polio is due to lack of:

Efficacy
Acceptability
Accessibility

Affordability
Key: True: d
9. A woman traveled a long way from a remote village \& came to a population welfare centre/family planning centr She had enough money but was very tired on account of traveling. When she went inside, she found a male doctor dealing with the clients. She decided to go back. The most likely reason for this decision is lack of:

Acceptability
Affordability
Accessibility
Efficacy

## Effectiveness

Key: True: a
10. The Northern area of Pakistan is the recognized belt of Endemic Goiter, on account of lodine deficiency. The Government of Pakistan decided to promote sale of lodized salts in this are This is an example of:

Monitoring

Decision making
Equity
Affordability
Efficiency
Key: True: c
11. There was an out break of simple watery diarrhea among children in a villag The health care providers wanted to avoid unnecessary hospital admissions and started distributing ORS to people, who had young children. This reflects:

Community participation
Equality
Sustainability
Appropriate technology
Intersectoral collaboration
Key: True: d
12. About $60 \%$ pregnant ladies in rural areas of Pakistan were found having anemi It was decided to provide them with iron \& folic acid supplements. This is an example of:

## Equality

Equity
Prioritization
Community participation
Situation Analysis
Key: True: b
13. A health team visited along with the community leaders and health workers, all the primary schools and Madrasas in a village to give polio drops during polio campaign. The community workers facilitated identification of houses with children less than five years of ag This reflects:

Management
Situation analysis
Prioritization
Community participation
Intersectoral collaboration
Key: True: d
14. The pediatric OPD of POF hospital, Wah Cantt is dealing with 200 patients daily. This type of direct contact of patients with the health care provider makes the OPD of POF hospital particularly a:

First level care facility
Secondary care hospital
First level referral facility
Higher level referral facility
Special pediatric service outlet
Key: True: a
15. A high prevalence of Ca cervix was found to be there in one of the tribal areas of Pakistan. It was planned to provide free facility of pap smear at a rural health centre in
order to screen the local population for cervical cancer. The program faced a lot of resistance as it lacked:

Accessibility
Affordability
Acceptability
Effectiveness

Equity
Key: True: c
16. A woman brought her child with congenital anomalies of heart and cataract. She gave history of mild fever and rash in the first trimester of pregnancy, which settled with mild antipyretics. The possible gestational condition that could have resulted in these anomalies is:

Measles

Herpes

Rubella
Chickenpox
Toxoplasmosis
Key: True: c
17. A 22 years old man presented with painful, vesicular and pustular eruption in the distribution of sensory nerve roots on his back. He gave history of chicken pox infection at ten years of ag The likely diagnosis was:

## Measles

## Meningococcemia

Herpes simplex
Scarlet fever

Herpes zoster
Key: True: e
18. A patient who has come from India, reports to a health facility with severe generalized aches and pain. Rash is present all over the body but palms and soles are spare The most likely diagnosis is:

## Scarlet fever

Trypanosomniasis
Malaria

Dengue
Yellow Fever
Key: True: d
19. There is an epidemic of Meningococcal Meningitis among jail prisoners. In addition to other infection control measures, chemoprophylaxis is advised for contacts. The best chemoprophylaxis for the protection of contacts is by giving:

Rifampicin
Chloramphenicol
Chloroquine
Doxicycline
Penicillin

Key: True: a
20. A doctor who has not received HBV vaccination was attending a patient suffering from Hepatitis B; he accidentally got a prick from a contaminated syring For maximum preventive use of Hepatitis B Immunoglobulin (HBIG), it is given as:
$0.5 \mathrm{ml} / \mathrm{kg}$ body weight within 2 hours
$0.5 \mathrm{ml} / \mathrm{kg}$ body weight within 24 hours
$0.06 \mathrm{ml} / \mathrm{kg}$ body weight preferably within 3 days of exposure \& repeating after one month
$0.06 \mathrm{ml} / \mathrm{kg}$ body weight preferably within 3 days
0.05 ml / kg body weight within one month \& repeating after 6 months

Key: True: c
21. Six of the ten family members living in a single room house, complain of intense itching with scratching in axillae, groin \& hands; it is more marked at night. The most likely diagnosis is:

Scabies

Dermatitis
Eczema
Psoriasis

Dermatosis
Key: True: a
22. A 5 years old boy developed fever with typical "dew drop rash" over his body. It appeared first on the trunk and spread to arms and legs later; there were no signs of neck stiffness and rigidity. What could be the likely diagnosis?

Scarlet fever
Measles

Rubella
Meningococcemia
Chicken pox

Key: True: e
23. A mother brought her 4 years old child with complaints of sore throat, difficulty in swallowing and low grade fever. On examination mild erythema and whitish membrane
was found on the posterior pharynx. The doctor diagnosed him as a case of Diphtheri Mother gave history of complete course of immunization of the chil What would be your line of management?

Penicillin
Penicillin plus passive immunization
Penicillin plus active immunization

Penicillin plus passive plus active immunization
Penicillin plus active plus passive immunization plus Tracheostomy
Key: True: b
24. A student of nursery class developed mild fever along with irritating cough gradually becoming paroxysmal along with a characteristic whoop. Which time period do you suggest for isolation of the student from the rest of the class?

I week
2 weeks
3 weeks
4 weeks
6 weeks

Key: True: d
25. If you, being a field doctor, in the department of public health, are given a task to visit a low socioeconomic community and give report about the immunization status of the community against Tuberculosis. The single most important and rapid clue to this immunization is:

## Montoux test

Number of patients with active T.B
BCG scar mark on right upper deltoid

X-ray chest
Sputum for AFB
Key: True: c
26. An epidemiologist was assigned to find out all the cases both new and old of T.B in a slum located near Islamabad during the year 2007. Which measure would have been used by him to give Prevalence of tuberculosis?
mass miniature radiography
Sputum examination
Sputum culture
Tuberculin test

BCG scar mark

Key: True: c
27. Ministry of health in collaboration with WHO has been working to eradicate polio from Pakistan since 1992. But still a few cases of polio are identified each year and most of the time the reservoir, which transmits polio to children is the:

Patient
Healthy carrier

## Convalescent carrier

Animal source
soil
Key: True: c
28. A man from a slum area was brought to the emergency of the DHQ Rawalpindi with history of passing rice water stools about 20-30 times and vomiting since yesterday. On examination there were signs of severe dehydration and hypovolaemic shock. What is the likely diagnosis? Typhoid

Amoebic dysentery

Cholera
Food poisoning
Giardiasis
Key: True: c
29. In a day care centre a child is suffering from measles. The centre has many children between the ages of 9-12 months. Measles infection can be prevented in these contacts if measles vaccine is given within:

1 day
3 days
5 days
7 days
10 days
Key: True: b
30. A 28 weeks pregnant lady reported to an ante natal clinic with signs and symptoms of Rubell She was insisting for the induction of labor before term as she feared congenital malformations of the fetus due to rubella at this time of gestation. She was told by the doctor that Rubella did not cause major abnormalities of fetus after:

4 weeks
8 weeks

12 weeks
16 weeks
20 weeks
Key: True: d

1. A total of 3500 patients with thyroid cancer are identified and surveyed by patient-interviews regarding past exposure to radiation. Which options explains the given example?

## Case series report

Case-control study
Clinical trial
Cohort study
Case report
Key: True: a
2. A total of 10,000 Vietnam veterans, half of whom are known by combat records to have been in areas where Agent Orange was used and half of whom are known to have been in areas where no Agent Orange was used, are asked to give a history of cancer since discharg Which option explains the given example?

Case series report
Case-control study
Clinical trial

Cohort study
Case report
Key: True: d
3. Patients admitted for carcinoma of the stomach are age and sex-matched, with smoking history to assess the possible association. Which option explains the given example?

Case series report
Case-control study
Clinical trial
Cohort study
Case report
Key: True: b
4. In a study of 500 cases of a disease and 500 controls, the suspected etiological factor is found in 400 of the cases and 100 of the controls. The absolute risk (incidenc of disease in persons with the factor is:

80\%
40\%
16\%
20\%
Cannot be computed from data given
Key: True: e
5. Residents of three villages with three different types of water supply were asked to participate in a study to identify cholera carriers because several cholera deaths had
occurred in the recent past. Virtually everyone was present at the time of examination. The proportion of carriers in each village was computed and compare This study is a:

Cross-sectional study
Case-control study
Concurrent cohort study
Non-concurrent cohort study
Retrospective cohort study
Key: True: a
6. In a village of 1 lakh population, among 20,000 exposed to smoking, 200 developed cancer, and among 40,000people unexposed, 40 developed cancer. The relative risk of smoking in the development of cancer is:

20
10

5

15
25
Key: True: b
7. Which one of the following is the odds ratio, calculated from the given data?

Diseased Un-diseased
Positive 3020
Negative 2030
0.44
1.5
0.8
2.25
2.00

Key: True: d
8. The estimate of the average number of additional years a person could expect to live, if the age specific death rates for a given year prevail for the rest of his life is best expressed by:

Survival index
Probability of dying
Life expectancy
Crude death rate
Age specific death rate
Key: True: c
9. In a universe comprising of 1500 children less than 5 years of age, 75 children with severe malnutrition were foun If 75 new cases of severe malnutrition were registered over a period of one year, the incidence rate for severe malnutrition during the same year is:

50 / 1000
$53 / 1000$
55 / 1000
60 / 1000
63 / 1000

Key: True: b
10. Every year during the winter season the hospital admissions are more for pneumonia cases. This year also about 358 children with pneumonia were admitted in the Pediatric department of POF Hospital between the months of Jan - Mar 2007. This increased frequency of respiratory infections during winter months is an example of:

Epidemic trend
Cyclical trend
Seasonal trend
Secular trend

Pandemic trend
Key: True: c
11. According to a study conducted by WHO the incidence of polio in Sindh province having a total population of 20 million was 1 during the year 2007, which type of study was this:

Case report
Cross sectional
Case control
Cohort
Ecological
Key: True: d
12. Acute hemorrhagic conjunctivitis affected a large proportion of population over a wide geographic area in 1971 and 1981. This spread of disease is:

Epidemic
Sporadic
Pandemic
Endemic
Opportunistic

Key: True: c
13. A patient came in emergency with signs of dehydration and severe diarrhe An Intra venous infusion was given to correct electrolytes and fluid levels. He was discharged after 2 days. About 2 months later the patient came back with signs of jaundice and K.K

Hepatitis B surface antigen was positiv He did not give history of any event which could have lead to this diseas This hepatitis infection may be labeled as:

Sub clinical
Idiopathic
Opportunistic
Cross infection
latrogenic
Key: True: e
14. In a village of population $10,000,250$ cases of Hepatitis B were reported in the month of July. The point prevalence of Hepatitis $B$ per thousand populations is:

20

25
30
50

100
Key: True: b
15. A child of three years comes with complaints of night blindness. On examination conjunctiva is dry and corneal haziness is also seen. There is no history of any other disease or injury. The likely agent type is:

Physical
Chemical

Nutritional

Hormonal
Immunological
Key: True: c
16. A new drug was introduced in some of patients to assess its usefulness compared with the old on Neither patients nor clinicians who evaluated patients for effect under consideration in this clinical trial knew individual treatment assignments. This method of assignment is known as:

Single blinding
Double blinding
Triple blinding
Randomization

Stratification

Key: True: b
17. A survey report in 1960 concluded that there was an increase in asthma deaths with the increased use of pressurized aerosol bronchodilators; although the deaths were more because of the severity of diseas This association is:

Spurious K,K
Temporal
Indirect

Consistency
Coherence
Key: True: a
18. Cement industry is suspected for more deaths among its workers. So the industrialist gets worried and wants to assess whether more deaths are likely in these workers or not. The measure that predicts the mortality in this industrial group is:

Age specific death rate
Standardized mortality ratio

Cause specific death rate
Proportionate mortality
Case fatality rate
Key: True: b
19. The annual report of POF Hospital for the year 2006 shows 200 cases of Myocardial Infarction, 35 cases of Cholecystitis, 105 cases of Pneumonia and 350 cases of Acute Gastroenteritis. The result of this report cannot be generalized on the total population of Wah on account of:

Confounding bias
Memory bias
Selection bias

Berkesonian bias
Interviewer?s bias
Key: True: d
20. Increased number of Malaria cases were reported in the time intervals between August to October and March to April. There are 2 different periods in a year, where increased malaria transmission is reporte Such an occurrence of malaria cases in time will give a distribution which is:

Unimodal
Sporadic
Bimodal

Endemic
Multimodal
Key: True: c
21. In study carried out in the hospital ward, every 10th admitted patient was included in the sample, which sampling procedure is this:

Random sampling K.K

Stratified sampling
Quota sampling
Convenient sampling
Systematic sampling
Key: True: e
22. The smoking history of pregnant women is taken in the antenatal period and correlated with the birth weight at the time of delivery. To find an association between them would be an example of:

Clinical trial
Nested cohort study
Retrospective study
Prospective study
Cross sectional study
Key: True: d
23. In a bulk of hundred children out of whom 28 are immunized 2 of them get measles simultaneously. Subsequently14 get measles. Assuming the efficacy of the vaccine to be $100 \%$, what is the secondary attack rate?

5\%
10\%
20\%
21.5\%
19.4\%

Key: True: c
24. A public health physician wants to study the load of hypertension in Rawalpindi district to establish special screening \& treatment services in the mentioned are Which design is more useful for this?

Cross sectional
Case series
Cohort

Case control
Experimental
Key: True: a
25. To give the relevant importance to hypertension control in a health service a researcher wants to study the prevalence of hypertension. He chose a cohort study. The design to assess prevalence is?

Inappropriate

Suitable

## Quick K.K

Feasible

Expensive
Key: True: a
26. A researcher wants to study natural history of silicosis in a population of industrial workers. Which design is most useful?

Cross sectional

Case report
Case control

Incidence
Ecological survey
Key: True: d
27. While investigating a point source epidemic it was found that 120 students ate five different foods (meat burgers, fried fish, steak, rice and fruit sala. The relative risk was calculated for all
those five foods. It was concluded that fish was not responsible for this epidemi The relative risk of fish is:
0.7
1.2
1.7
3.0
7.0

Key: True: a
28. Among 10 women with cervical cancer, medical records confirm a past history of herpes simplex type II infection in eight. What is the relative risk of developing cervical cancer in women with a history of HSV type II infection?

8/10
10/8
8/2
2/10
2/8
Key: True: c
Questions \# 29-30.
The results of a study of the incidence of pulmonary tuberculosis in a village in India are given in the table below. All persons in the village are examined during two surveys made 2 years apart, and the number of new cases was used to determine the incidence rat

Category of Household at First survey
Number of Persons
Number of New cases
With culture positive case
500

Without culture positive case
10,000
10
29. What is the incidence of new cases per 1000 person years in households that had a culture positive case during the first survey?
0.02
0.01
1.0

10
20
Key: True: d
10 new cases $=10$ cases/1000 persons years
500 persons $\times 2$ years
30. What is the incidence of new cases per 1000 person years in households that did not have a culture positive case during the first survey?
0.001
0.1
0.5
1.0
5.0

Key: True: c
10 new cases $=0.5$ cases $/ 1000$ persons years
10,000 persons $\times 2$ years

1. 30 years old married woman was advised X-Ray abdomen. To prevent radiation hazard to the baby in this woman, the doctor should take history of:

Hypersensitivity to radiation
Menstrual cycle
Previous exposure to X-Ray
Previous abortions

Genetic history
2. Which of the following is the most sensitive indicator of MCH (maternal and child health) services?

Anaemia in pregnant woman
Contraceptive prevalence rate
Maternal mortality rate
Under five mortality rate
Literacy rate
3. The average weight gain for a pregnant woman with BMI $20-25$ should be
11.5 to 18 kg
11.5 to 16 kg

7 to 11.5 kg
12.5 to 18 kg

10 to 15 kg
4. A Pap smear and colposcopic examination for the early detection of cervical cancer is:

Primary prevention
Secondary prevention
Tertiary prevention
Medical treatment

## Surgical treatment

5. The most commonly described anomalies associated with congenital rubella include all the following except.

Cataracts
Sensorineural deafness
Microcephaly
Patent ductus arteriosus
Hutchinson?s tooth
6. The additional energy requirement for a woman during pregnancy is

150 kcal / day
300 kcal / day
400 kcal / day
550 kcal / day
600 kcal / day
7. If Rh positive baby is born to Rh negative mother than dose of Rh anti D should be given to mother.

Within 72 hours
Within a week

Within 15 days
Within a month

Within a year
8. The ideal minimum number of antenatal visits is:

Three

Six
Five

Twelve
Fifteen
9. Low birth weight infant is one whose weight is:

Less than 1.5 kg
Less than 2 kg
Less than 2.5 kg
Less than 3 kg
Less than 3.5 kg
10. The most common cause of early neonatal mortality is:

Low Birth Weight
Acute Respiratory Infections
Malnutrition
Malaria
Jaundice
11. The most common cause of post neonatal mortality is:

Low birth weight
Acute Respiratory Infections
Malnutrition
Malaria
Jaundice
12. Which one of the following is not true regarding domiciliary midwifery services?

It refers to delivery services at hom
Chances of acquiring infection both in mother and child are less in home environment.
A doctor from maternal and child health centre invariably conducts deliveries.

It is better to refer high risk pregnancy to a hospital.
It is the lady health visitor or a trained birth attendant who conducts delivery
13. The most common clinical presentation of cytomegalovirus infection at birth is:

Hapatosplenomegaly
Hepatitis
Anemia
Cerebral calcifications
Retinitis
14. Cerebral malaria is a complication of which of the following Plasmodia infections.

Falciparum
Vivax

Malariae

Ovale

Mixed infection by vivax and ovale
15. A patient who has come from India, reports to a health facility with generalized aches and pain and rash on the body excluding palms and soles. The most likely diagnosis is:
scarlet fever
Trypanosomniasis
Malaria

Dengue
Yellow Fever
16. The best method recommended by WHO for malaria control in endemic areas is:

The use of Pyrethrum impregnated bed nets
Regular use of Chloroquine

Genetic Control of Mosquitoes
Vaccination
Passive immunity by anti-sera
17. Which of the following is not a rash producing infection?

Typhoid
Dengue
Measles

Malaria
Syphilis
18. Which one of the following is internationally quarantinable disease?

Yellow fever
Amoebiasis

Malaria

HIV
HAV
19. Diagnosis of tuberculosis is mainly confirmed by:

Mass miniature radiography
Sputum microscopy
Sputum culture

Tuberculin test

Blood culture
20. For every case of polio, the estimated number of sub clinical cases are:

10

500
1000
21. All of the following are water borne diseases except:

Poliomyelitis
Paratyphoid fever
Tuberculosis
Weil?s Disease
Guinae worm disease
22. Which of the following is not true for whooping cough?

It is prevented by a killed vaccine
Its chronic complication include pleural and bronchial carcinoma Its acute complication are bronchitis and bronchopneumonia There is no specific immunoglobulin available for whooping cough The causative agent of the disease is a gram negative bacteria
23. All of the following are true for meningitis except

The causative agent of meningitis commonly seen in children under two years of age is hemophilus influenza

It is transmitted by infected droplets of the patients
Rifampicin is given for two days to the contacts for prevention
Healthy carrier are commonly seen
Presence of bacteria in the throat always means an active disease
24. Chemoprophylaxis is recommended by WHO in all of the following except:

Cholera

Plague
Measles
Meningococcal meningitis
Malaria
25. Which one of the following diseases has been eradicated?

Measles

Polio

Tuberculosis
Dracunculosis
Burcellosis
26. A person is exposed to an antigen for the first time, the type of antibody to appear first in his blood is:
$\lg A$
IgD
IgG
$\operatorname{lgM}$
IgE
27. One of the important contraindications to vaccination against "Whooping cough" is:

History of convulsion
3rd degree malnutrition
History of Pertussis in family
Mild Febrile illness
Liver diseases
28. Vaccines are either killed or live attenuated, which one of the following is a killed vaccine:

BCG

Measles vaccine
Oral polio vaccine

Salk polio vaccine
Rubella
29. Herd immunity is commonly seen in one of the following diseases:

Poliomyelitis
Leprosy
Malaria

HIV

Cholera
30. Immunization is

Health promotion

Specific Protection
Early detection
Rehabilitation

Prompt Treatment
31. Which of the following statements is true about Passive Immunization?

It is immediately effective

It is less likely to cause allergic reactions as compared to active immunization
Provides longer protection as compared to active immunization
Should be provided to all sick children.
It is always non specific
32. Regarding Measles Vaccination which one is correct?

Measles Vaccine should be given to all the persons of a community regardless of ag The best time of measles vaccination is first month of lif

For primary Measles Vaccination, at least two doses should be given, one month apart to ensure full antibody response

It is better to delay the vaccination till 9-15 months of ag
To protect against a second attack of measles, vaccine should be offered even to those persons who have had an attack of Measles previously.
33. Normal human immunoglobulin is given in one of the following conditions as specific immunoglobulins are not available:

Hepatitis A
Hepatitis B
Chicken Pox

Diphtheria
Tetanus
Key: True: a
34. Which of the following statements is true about Hepatitis $B$ vaccine?

It is a live attenuated vaccine
It is a recombinant DNA vaccine
It is a freeze dried vaccine
This Vaccine and Immunoglobulin can not be given together
This Vaccine has to be repeated every year
Key: True: b
35. Protective value of BCG vaccination is:

Less than 40\%
50\%

60\%
80\%
Less than 90\%

Key: True: a
36. Which one of the following is a live attenuated vaccine?

Sabin vaccine

Salk vaccine
Cholera
Pertusis
Diphtheria Toxoid
Key: True: a
37. Which of the following group of Lymphocytes recognizes antigens and results in the development of a humoral immune response

Killer (K) cells
T lymphocytes
Null cells
B lymphocytes
Suppressor T (Ts) cells
Key: True: d
38. Erythroblastosis fetalis can be prevented in the next baby, if the mother is injected, at parturition, with an antibody called:

Non specific immunoglobulin
Rho ( immunoglobulin (RhoGAM)
Antilymphocyte globulin
Antithymocyte serum

Univalent antiserum
Key: True: b
39. One of the serious complications associated with the use of immunosuppressive agents is:

Increased incidence of autoimmune disease
Increased susceptibility to opportunistic infections
Loss of tuberculin sensitivity in tuberculosis patients
Loss of hair
Decrease in complement levels
Key: True: b
40. The preferred vaccine for diphtheria consists of

Heat-killed corynebacterium diphtheriae
Attenuated corvnebacterium diphtheriae
Precipitated or adsorbed toxoid
Capsular polysaccharide
Capsule plus carrier protein
Key: True: c
41. The snake bite of family viperidae is commonly identified by one of the following effect:

Myotoxic
Neurotoxic
Heamotoxic
Hepatotoxic
Nephrotoxic
Key: True: c
42. Which of the following statements about Polyvalent anti-snake venom serum is true?

It is to be given subcutaneously
It is an example of passive immunization
It is usually obtained from human donors

It should be stored at 00
It gives life long immunity
Key: True: b
43. Which one of the following statements is true regarding krait envenomation:

Violent abdominal pains due to internal hemorrhages
Staggering gait
Creeping paralysis beginning in legs
In coordination of speech
Drooping of head
Key: True: a
44. Which one of the following is the zoological name of cobra?

Naja Naja
Bungarus caeruleus
Echis carinatus

Vipera russelli
Rana tigrena
Key: True: a
45. Which one of the following statement is true for Russell Viper envenomation?

Neurotoxic and swift acting
Primarily neurotoxic causes slight swelling
After some time a dark discoloration occurs at the site of bite

Difficult breathing
Hyper salivation
Key: True: c
46. In cobra envenomation, death occurs due to which one of the following reasons?

Respiratory failure
Stroke
Internal hemorrhages
Nephrotoxicity
Cardiac failure
Key: True: a
47. All of the following are the constituents of snake venom except:

Hyaluronidase
Phospholipase A2
Transaminase
Endonuclease
Lipase
Key: True: e
48. Which of the following is not true for snake bite in Pakistan?

Most death occur due to rattle snake
Snake bite is more common in summer
Management of snake bite requires anti snake venom
Cobra bites are characterized by neurological signs
Snakes are mostly oviparous
Key: True: a
49. All of the following are the protozoal infections except:

Leshmaniasis
Toxoplasmosis
Trypansomiasis
Lassa fever
Giardiasis
Key: True: d
50. Which one of the following is true regarding Giardiasis?

The infection commonly affects children who are admitted in a day care centre Infection is generally in-apparent in the children, but always symptomatic in adults It leads to gestational infection in a new borne

It is the commonest nosocomial infection
None of the above
Key: True: a
51. The intermediate host involved in transmission of Diphyllobothriasis

Snail
Swine
Fish
Crab
Dog
Key: True: c
52. The intermediate host involved in transmission of Cysticercosis

Snail
Swine

Fish
Crab

Dog
Key: True: b
53. The most important method of prevention of Dracunculus medinensis (Guinea Worm) infection is by:

Washing the hands with soap before eating.
Proper sewage disposal.

Mass vaccination.

Purification of water
Eating the properly cooked meat.
Key: True: d
54. Which of the following is true about round worm?

It can suck up to 1 cc of blood per day.
It belongs to the group of trematodes.
The infection takes place by ingestion of eggs of the worm.
Only female worm exists in human gut.
It is very common in villagers because they walk barefoote
Key: True: c
55. About Oriental Sore which one of the following is correct?

It is caused by Leishmania Donovani.
The diagnosis is made by taking a smear from the base of ulcer.
The disease spreads by bathing in dirty water.
Human beings are the only reservoir.

Food should be protected from flies to prevent the epidemic of the diseas
Key: True: b
56. Koplik's spots are the diagnostic sign of one of the following diseases:

Rubella
Whooping cough
Measles

Meningitis
Mumps
Key: True: c
57. Which of the following diseases is included in expanded program on immunization?

Tuberculosis
Mumps
Chicken-pox
Rubella
Hepatitis A
Key: True: a
58. The best measure taken in meningococcal meningitis out-breaks is:

Mass chemo-prophylaxis by penicillin
Immunization
Chlorination of all water supplies
Closure of schools
Mass screening program
Key: True: b
59. Aedes Egypti mosquito is commonly a vector in the transmission of one of the following diseases:

Filariasis
Yellow Fever
Malaria
Plague
Leishmaniasis
Key: True: b
60. All the following diseases can be prevented by vaccination except:

Measles
Mumps
Malaria
Whooping cough
Tuberculosis.
Key: True: c
61. Which one of the following vectors transmits scrub typhus:

Louse
Flea
Mite

Ticks
Mosquito
Key: True: c
62. Regarding clinical spectrum of poliomyelitis, approximately one percent of all polio-infections are

Abortive polio

In apparent polio
Non-paralytic polio
Paralytic polio
Clinical Cases
Key: True: d
63. The main mode of transmission of Ancylostoma duodenale is:

Ingestion of larva
Ingestion of eggs
Inhalation

Percutaneous

Blood transfusion
Key: True: d
64. Which of the following statements about Polyvalent anti-snake venom serum is true?

It is to be given subcutaneously
It is an example of passive immunization
It is usually obtained from human donors
It should be stored at 00
It gives life long immunity
Key: True: b
65. 30 years old married woman was advised X-Ray abdomen. To prevent radiation hazard to the baby in this woman, the doctor should take history of:

Hypersensitivity to radiation
Menstrual cycle
Previous exposure to X-Ray

Previous abortions
Genetic history
Key: True: b
Nutrition

1. If a child presents with protein energy malnutrition showing signs of loss of subcutaneous fat and weight reduction. The level of prevention suggested at this point is:

Primordial prevention
Health promotion
Specific protection
Early diagnosis and prompt treatment
Disability limitation \& rehabilitation
Key: True: e
2. A child of 1 year presents with muscle wasting, loss of subcutaneous fat with no signs of edema and weight below $60 \%$ of WHO standar The mother gives history of not giving enough proteins and other nutrients to the child after six months of ag The likely diagnosis is:

Kwashiorkor

Marasmus
Marasmus \& kwashiorkor
Under nutrition
Vitamin B1 deficiency
Key: True: b
3. A weight conscious pregnant woman wants information about her requirement of calories per day during pregnancy. You suggest an increase of:

250 kcal
450 kcal
350 kcal

550 kcal
650 kcal
Key: True: c
4. A 5 years old child complains of poor vision at night with no other refractive error. He is likely to be benefited by:

Cod liver oil capsules
Oral antibiotics
Eye drops containing antibiotics
Suitable eyeglasses
Intra ocular lens replacement
Key: True: a
5. In a Madrasa of a remote area, 14 girls of 9 years of age were residing to memorize Quran Pak. They were treated well but they observed strict Pardah and were never allowed to visit outsid On returning home after 5 years, 10 of them were short stature The most likely reason of being short statured was deficiency of:

Vitamin A
Vitamin B12
Vitamin C

Vitamin D
Vitamin K
Key: True: d
6. A 14 week pregnant lady came to Gynae O.P.D with no specific complaints but to inquire about her additional requirements during this perio She was already taking 500 mg of calcium, 40 mg of iron and 0.5 mg ( 400 micro grams) of folic acid in combination. The comment of gynecologist on her present intake of micronutrient is?

Excess of iron
Less folic acid

Adequate calcium and iron
Less calcium
Less iron and folic acid

Key: True: d
7. Researchers decided to study the impact of iodized salt programme especially in hilly areas of Pakistan. They had chosen the most sensitive indicator for monitoring environmental iodine deficiency which was:

Prevalence of goiter
Prevalence of myxoedena
Prevalence of neonatal hypothyroidism
Urinary iodine excretion
Prevalence of cretinism
Key: True: c
8. A Pakistani physician went to work in South Afric A woman reported with diarrhe On examination she was found to have glossitis. Her detailed investigations revealed presence of anemi She was diagnosed as a case of Niacin deficiency. The likely food to have caused this deficiency state is:

Legumes
Maize
Whole wheat

Raw rice

Pearl millets
Key: True: b
9. A chronic alcoholic was complaining of loss of appetite and pain in lower legs. On examination his gate was ataxi He is suffering from deficiency of:

Niacin

Thiamine

## Riboflavin

Folate

Pantothenic acid
Key: True: b
10. A patient of pulmonary tuberculosis was put on anti tuberculous therapy. He was given Rifampicin, INH, Ethambutol and Pyrazinamid He should be advised to have a supplement of:

Niacin
Pyridoxine
Riboflavin
Thiamine
Pantothenic acid

Key: True: b
11. A pregnant lady comes to Gynae OPD complaining about increase in lethargy and shortness of breath. On examination she is found to have glossitis. Her blood CP reveals macrocytic anemi The most likely deficiency which has caused this condition is:

Folic acid
Pentothenic acid
Vitamin B6

Niacin
Thiamine
Key: True: a
12. A 30 years old lady was brought to the hospital with strong labour pains for the last 3 hours and no progress. She was found to have pelvic deformities which lead to cephalopelvic disproportion. The baby was delivered by a cesarean section. The woman is likely to have suffered from the deficiency of:

Vitamin A
Vitamin B
Vitamin C

Vitamin D

Vitamin K
Key: True: d
13. A person who subsisted on taking maize only for many years reported to a health facility with the signs of glossitis. His history suggested frequent attacks of diarrhea and memory loss. The likely condition is:

Pellagra
Riboflavin deficiency
Beri Beri

Iron deficiency

Protein malnutrition

Key: True: a
14. Government of Pakistan has accepted iron fortification to reduce prevalence of anemia; it has recently been decided to fortify:

Salt

Flour

Sugar
Skimmed dried milk
Vanaspati ghee
Key: True: b
15. A dental surgeon appointed in a rural health centre reports an increased incidence of dental caries in the people of that are A research team confirmed that water supply of that area is deficient in:

Chloride

Sodium

## Calcium

Fluoride

Zinc
Key: True: d
16. District health officer visited local general stores in Gunjranwala District. He found certain sub standard products, Turmeric was found to be containing lead chromate powder and Coriander cow dung. He reported to the health authorities that the foods in Gunjranwala district are:

Intoxicated

Fortified

Adulterated K.K
Infected

Containing additives
Key: True: c
17. At 1:00 pm a mother got a phone call from the school to pick her son, as he was having excessive vomiting. The child was taken immediately to the Hospital where he told that he had taken ice-cream in lunch break at 11:30 am. Most likely he was suffering from food poisoning due to:

Salmonella

Shigella
Staph aureus
Campylobacter Jejuni
Clostridium botulinum
Key: True: c

1. 80 years old gentleman presented with sudden loss of consciousness. He is a diabetic and on oral hypoglycemic drugs. He had skipped his breakfast that day. The first laboratory investigation would be:

Blood sugar level
ECG
Glycosylated hemoglobin
EEG

Urinary glucose
Key: True: a
2. 5 students of 4th year of Wah Medical College are doing research on risk factors of coronary heart disease and the perceptions among patients of the diseas They have observed that risk factor which is most significantly associated with the incidence of CHD is:

Hypertension
High serum cholesterol
Alcoholism
Decreased physical activity
Cigarette smoking
Key: True: b
3. A 40 years old executive who smokes three packs of cigarettes a day comes to your office for his routine health assessment. He states that he likes to quit smoking but he is having great difficulty. He gives history of having tried three times but failing due to work pressure, but the doctor assesses the factor responsible for the failed attempt is:

40 years age
Numbers of cigarettes
Stress at work
Half hearted attempts to quit
Type „A? personality

Key: True: d
4. A 40 years old executive who smokes three packs of cigarettes a day comes to your office for his routine health assessment. He states that he likes to quit smoking but he is having great difficulty. He gives history of having tried three times but failing due to work pressur The content of cigarette for this relapse is:

Nicotine level
Tar content of the cigarette
Aldehyde
Ketone

Carboxylic acid
Key: True: a
5. A forty years old woman presents with an ovarian cyst; you want to screen her for breast cancer before suggesting any hormonal treatment. What will you advise?

Chest radiograph
Mammography
Biopsy of breast
Blood levels of progesterone
Tumor markers
Key: True: b
6. During a health education session about non communicable diseases in a female community; you will inform that genetics and family history make a woman more prone to have:

Cataract
Stroke

Breast cancer
Oral cancer
Liver cirrhosis

Key: True: c
7. Epidemiologist linked prevalence of carcinomas mostly related with parasitic and viral infections, in developing countries due to bad hygienic conditions. During the research strong linkage was proposed between carcinoma cervix and:

Cytomegalovirus
Human papilloma virus
Epstein barr virus

Helicobacter pylori
Schistosoma Hematobium
Key: True: b
8. Japan has low incidence of prostate cancer as compared to the incidence in US The incidence of carcinoma prostate increases in Japanese when migrate to U.S. This supports:

Nutritional effect
Environmental effect
Genetic effect
Metabolic effect

Occupational effect
Key: True: b
9. An $80 \mathrm{~kg}, 50$ years old gentleman is found to have BP of $135 / 80 \mathrm{~mm}$ of Hg . The most important step included in primary prevention of hypertension in this patient is to:
f. Advise lipid profile
g. Reduce weight
h. Ensure patient compliance
i. Take antihypertensive treatment
j. Have monthly follow up

Key: True: b
10. Use of oral contraceptives by women smokers over 35 years of age is associated with increased risk of:

Cervical cancer
Breast carcinoma
Chronic bronchitis
Coronary heart disease
Peripheral neuropathy
Key: True: d
11. 49 years old black African male smoker with positive family history of hypertension presented with history of constant headach His blood pressure was $140 / 90 \mathrm{mg} \mathrm{hg}$. The modifiable risk factor in this particular case is:

Male sex
African race

Positive family history
Smoking
Age
Key: True: d
12. Japan has low incidence of prostate cancer as compared to the incidence in US The incidence of carcinoma prostate in Japanese did not change with their migration to the U.S. It supported:

Nutritional effect
Environmental effect
Genetic effect
Metabolic effect
Metabolic effect
Key: True: c
13. Dietary factors have a strong influence on the development of carcinomas. A research article was read in Marriott Islamabad regarding this fact and gastric carcinoma was linked with:

High fat intake
Beef consumption
Smoked fish

Presence of nitrosamines

High dietary fiber content
Key: True: d

1. To impart health education regarding child care to large number of mothers visiting MCH centre it is decided to resort to method of group discussions. What could be appropriate strength of each group for this purpose?

3-5
4-6
6-12
20-25

20-30
Key: True: c
2. To develop effective AIDS control strategy for Pakistan, the experts from all over the world are invited to devise the plan after relevant discussion. What name is given to this method?

Seminar
Group discussion
Symposium
Panel discussion

Workshop
Key: True: d
3. Persuasive communication was deliberately employed to manipulate feelings, attitudes and beliefs of people regarding smoking, this method is known as:

Counselling
Motivation
Propaganda
Advising
Education
Key: True: c
4. Health education is the responsibility of

Health educationalist
Doctor
Paramedical staff
Every health worker
Community Nurse
Key: True: d
5. Diarrhoeal cases among children of an urban slum are on a ris Almost all the mothers are illiterate and belong to lower socioeconomic class. It seems difficult to make them understand the use of ORS. What method can provide the best solution in this scenario?

Role playing
Poster competition
Radio Programme
Lectures
T.V commercials

Key: True: a
6. There was a tableau held in POF Hospital, Wah Cantt on the world children day to demonstrate the importance of ORS in dehydration with a back drop of ORS, breast feeding and MCH servic This method is known as:

Poster competition
Role playing
Symposium
Lectures

Learning by doing
Key: True: b
7. After a thorough study of socio-demographic characteristics of a population in Dhok Ratta, a relevant method of health education against smoking was employed to this population. Upon assessing the population habits even after lapse of 2 years, no change in the behaviour of the smokers was note What is likely to be missing in this programme to achieve the desired results?

## Reinforcement

Knowledge of cultures
Knowledge of beliefs
Required devotion
Appropriate methods
Key: True: a
8. A person aged 40 years, working as a laborer in grain market for the last 25 years presented with a history of repeated attacks of respiratory infections in the last 1 year. X-ray showed pulmonary fibrosis. The likely diagnosis was:

Tuberculosis
Silicosis

Silicotuberculosis
Farmer?s lung
Baggassosis

Key: True: d
9. An industrial worker reported to you with complaints of cough, history of dyspnoea on exertion and pain in the chest. His X-ray chest showed snow storm appearanc The diagnosis would be:

## Asbestosis

Siderosis

Silicosis
Aspergilosis
Byssinossis
Key: True: c
10. An occupational worker presented with complaints of exertional dyspnoe He gave history of being in an industry dealing with spare parts such as gas kit and brakes, he also gave history of smoking for about five years. His X-ray chest showed a ground glass appearance / honey combing in the lower two thirds of the lung fields. The likely condition that he suffers from is:

Silicosis

## Anthracosis

Asbestosis
Siderosis
Baggassosis
Key: True: c
11. A worker who had been in the battery manufacturing unit for the last 20 years, reported to you with complaints of loss of appetite and abdominal colic of 2 weeks duration. You will prefer to investigate him for:

Cholecystitis
Lead poisoning
Appendicitis
Ameobiasis

Ca stomach
Key: True: b
12. In a lead pipe factory, you want to carry out a screening programme in workers to exclude lead poisoning. Your choice of the most useful screening test will be measurement of:

Lead in blood

Lead in urine
Coproporphyrin in urine
Aminolaevulinic acid in urine

Basophilic stipling of RBCs
Key: True: c
13. In an automobile manufacturing plant of Pakistan, a large number of employees are working in different sections. Persons who work in the section of welding the parts together have started reporting sick with redness of eyes. On examination conjunctivitis and keratitis are foun What could be the cause of this problem?

Poor Personal Hygiene
Heat
Overwork
Ultraviolet radiations
Ionizing radiations
Key: True: d
14. Your opinion is sought as a Public Health Specialist by the employers of a glass factory in which some workers have developed Silicosis. The most important control measure that you recommend is:

Pre-placement examination
Adequate personal hygiene
Substitution

Periodic X-ray chest
Rigorous dust control
Key: True: e
15. Twenty workers of a chemical factory located in an industrial area near Lahore, are handling irritant chemicals (dichromates) as part of their jo Such workers require periodic medical examination. What could be the appropriate frequency of such examinations in your opinion?

Once a year
Twice a year
Monthly
Weekly
Daily
Key: True: d
16. A mother brought her six weeks old child to an EPI centre for routine immunization. She was enquired about history of Epilepsy in the family and febrile fits. The doctor took this history to avoid complication with:

Diphtheria toxoid
Tetanus toxoid

Hepatitis B vaccine
Pertussis vaccine

OPV
Key: True: d
17. A conference is being held for prevention of haemorrhagic fever in our country. The people from South Africa are also invite Your opinion as a health expert is sought regarding transmission of prevalent infection in South Africa to Pakistan. The infection that you should be most concerned about is.

Dengue fever
Typhus

Hay fever
Congo fever
Yellow fever

Key: True: e
18. An M.S student of Wah Medical College got an accidental prick while drawing blood of hepatitis B positive patient. He had completed his course of immunization against hepatitis B last year. What would you recommend for him?

Booster dose of HB Vaccine
Single dose of passive immunization
Both active and passive immunization
Two doses of immunoglobulins 30 days a part
Nothing required
Key: True: d
19. A forty years old guard of forestry presented in emergency with complaint of dog bite on his left leg. On examination a deep transdermal wound was foun He gave history of completing the course of immunization against rabies last year. His serum antibody titre was $>0.5 \mathrm{IU} / \mathrm{ml}$ of bloo What would you advise?

Complete course of active immunization \& passive immunization
Only passive immunization
Two booster doses of HDC vaccine

Three booster doses of HDC vaccine + RIG
Only local treatment of wound and anti tetanus measures
Key: True: c
20. A 20 years old lady read an article in a newspaper on vaccination against tetanus. She is very conscious of herself being vaccinate The best schedule that you would suggest for her at this age is:

Single dose of TT

Two doses of TT one month apart
Two doses one month apart with booster after five years
Five doses of TT
Nothing required till she gets pregnant
Key: True: d
21. A 30 years old man went in Benazir Bhutto?s rally at Rawalpindi, where in a suicidal attack he got a penetrating injury on his leg. The emergency treatment was given. His immunity status against tetanus is not known. The required anti tetanus measures ar

Toxoid one dose
Toxoid one dose + TIG
Toxoid complete course
Toxoid complete course + TIG
Fifteen hundred international units of ATS
Key: True: d
22. A primigravida came for antenatal. Her base line investigations along with screening for Hepatitis B and C were don She was diagnosed HBV positiv What measure would you suggest to prevent the infection in her child after delivery?

Active immunization only
Active \& passive Immunization
Only passive immunization
Chemoprophylaxis
Reassurance
Key: True: b
23. A 6 weeks old boy came for DPT, polio \& HBV vaccination. He was given initial doses of all and was called after 4 weeks to have the next doses. The likely reason for calling him again was:

Loss of immune memory

## Stimulation of macrophages

Summation of immune responses
Replication of lymphocytes
Immune tolerance
Key: True: c
24. A GP purchased BCG vaccine for his clini He should store this vaccine at his clinic in:

A dark place
Deep freezer
Water carrier
Refrigerator
Shelf
Key: True: b
25. The population living in Wah Cantt is using water from a deep spring, which is considered to be relatively free from organic contamination but rich in calcium bicarbonates and sulphates. On account of properties that spring water has, protects people from:

Gastroenteritis
Ankylostomiasis
Atherosclerosis
Renal problems
Degenerative heart disease
Key: True: c
26. Required amount of chlorine was added to a large body of water after sedimentation. The pH of water was 4.0 and level of sulphides was negligibl A contact period of one hour was ensure Eventually, it was found that chlorination was not successful. The likely reason was:

Low pH
Less contact time

Less amount of chlorine
Suspended impurities
Chemical antagonists
Key: True: a
27. People of a village reported a high prevalence of bacterial gastroenteritis even after proper chlorination of water supply for the recommended duration. On water analysis, level of chlorine in water was $0.01 \mathrm{mg} / \mathrm{L}$ and pH of water was 6.5 . There were no suspended impurities; levels of sulphides and ferrous were low. The likely reason of increased bacterial gastroenteritis even after chlorination is:

Low residual chlorine
High pH leading to chlorination failure
Presence of sulphides
Low level of ferrous
Inadequate contact time
Key: True: a
28. A water sample was taken from a source where catchment area included a large agricultural lan It was declared unfit for human consumption on account of raised
concentration of a chemical. The likely chemical which has resulted in making this water unfit is:
lodine

Calcium

Zinc
Chlorides

Nitrite
Key: True: e
29. During a sanitary inspection of a rapid sand filtration plant, slowing of the filtration rate was observed owing to loss of hea Which method will you suggest to give head to water in such a situation?

Addition of alum
Scraping the top layer
Increasing duration of storage
Back washing of sand bed
The addition of lime or soda ash
Key: True: d
30. You were required to chlorinate well water; you added required amount of bleaching powder solution to the water and allowed an overnight contact tim What is your recommendation regarding consumption of this water for drinking.

Fit for consumption
To be used after 12 hours
To be used after another 24 hours
Rechlorinate
May be used after boiling
Key: True: a
31. A dental surgeon appointed in rural health centre reports an increased incidence of dental carries in the children of that are The relevant preventive measure that he should suggest to the health authorities is:

Fluoridation of water

Chlorination of water
Use of bacterial filter
Use of boiled water
Softening of hard water

Key: True: a
32. Chlorination of water was done by addition of bleaching powder solution containing $10 \%$ available chlorin One hour contact time was ensure What is your recommendation regarding use of this water for drinking?

Fit for consumption
Use after 06 hours
Use after 12 hours
To be used after another 24 hours
Rechlorinate
Key: True: e
33. Water samples from two villages of Punjab were sent to Health laboratory for examination. Lab reports show fluoride levels ranging form 5.26 to $6.32 \mathrm{mg} / \mathrm{lit}$. Use of this water for drinking may lead to:

Dental caries
Dental flourosis
Gingivitis
Periodontitis
Alveolar abscess
Key: True: b
34. An out-break of scabies was reported in a Kachi abadi consisting of 500 peopl The appropriate preventive measures suggested by you would be to:

Filter the water
Improve accessibility to water
Destroy breeding sites of insects
Chlorinate water
Avoid bare footed watering of fields

Key: True: b

1. Your advice is sought to maintain sustainability of a health programm What is the best and essential feature that you suggest to make the programme sustainable?

Community participation
Cost effectiveness
Cost analysis
Intersectoral collaboration
Equality
Key: True: a
2. The water and power development and public health engineering are the two areas which are working with the health department for control of diahrroeal and gastrointestinal diseases in Rawalpindi District, which is an example of:

Equity
Equality
Sustainability
Appropriate technology
Intersectoral collaboration
Key: True: e
3. A health team visited a village to setup a health facility ther The team surveyed the area along with the local health worker, the village Numberdar and two volunteers from the peopl This indicates:

Management
Community participation
Situation analysis
Prioritization
Communication

Key: True: b
4. Infant mortality was studied at one place by three different investigators / researchers. It was found that they all gave the similar figures. This quality of a measurement is referred as:

Sensitivity
Subjectivity
Specificity
Objectivity
Accuracy
Key: True: d
5. There was an epidemic of cholera in a village of Bangladesh. It was followed by increase in deaths mainly among children and eventually an increase in infant mortality rat This quality of IMR to change with changes in mortality trends is:

Sensitivity
Objectivity
Specificity
Validity
Accuracy
Key: True: a
6. A community survey was done to assess the health needs of community, community demanded more schools, sanitary water supply and sewage disposal. The surveyors recommended building of sanitary wells and bore-hole latrines straight away to decrease the incidence of diarrheal diseases. The provision of schools was delayed for a few reasons. This step by the health care providers is known as:

Prioritization
Equity
Equality
Leadership

## Health promotion

## Key: True: a

7. About 75\% of population in Pakistan reside in rural areas and the remaining in peri-urban and urban areas, while the allocated funds for improvement of health care programmes are more for urban areas. This is an example of:

Inequality
Inequity
Prioritization
Resource generation
Sustainability
Key: True: b
8. For providing quality health services, community participation plays an essential rol To ensure maximum community participation, which level of health care system should be strengthened?

Primary health care
Secondary health care
Tertiary health care
1st level referral facility
Higher level referral facility
Key: True: a
9. Pakistan was a signatory to Health for All concept and it adopted the PHC approach in 1978 to achieve the goals of health HFA by the year 2000. The health infrastructure was developed and human resource inducte Keeping in mind the health scenario of Pakistan, which aspect is the most critical in achieving the desired objective of health for all?

Money
Community health workers
Leadership in health care

Computer network
Research
Key: True: c
10. To suit the rural situation in Pakistan the lady health visitor introduced a homemade fluid for oral rehydration. It will be described as:

Community participation
Feasibility
Suitability
Equity
Appropriate technology
Key: True: e
11. Government of Pakistan started a program of safe water supply to people as part of water \& sanitation decade 1981-91 in order to improve their health. Many poverty alleviation schemes were also implemented to ensure economic stability. These reflect:

Intersectoral collaboration
Equality
Equity
Appropriate technology
Efficiency
Key: True: a
12. The effectiveness of an intervention will depend primarily on:

Equity
Equality
Money
Comprehensiveness

Planning \& management
Key: True: a

1. The yield of a screening programme by a field test increased over a period of 3 years although the trade off between sensitivity and specificity remained the sam It gives a clue to an increase in;

Validity
Accuracy
Prevalence
Incidence
Reliability
True: c (Prevalenc
2. A woman came with antipartal bleeding. She was to be transfused with bloo Her blood was sent for blood grouping and HBV screening. She was found to be HB positiv This screening is;

Multiphasic
Targeted
Research

Mass
Opportunistic
True: e (Opportunisti
3. Worker of lead foundry are tested for corpoporphyrin in the urin This screening is:

Multiphasic
Targeted
Research

Mass
Opportunistic

True: b (Targete
4. For screening of tuberculosis mantoux, chest x-rays and sputum analysis were used on the same occasion in Rawalpindi District. This screening is an example of:

Multiphasic
Targeted
Research
Mass
Opportunistic
True: a (Multiphasi
5. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
Calculate sensitivity in the above tabl
Key: $12 / 12+28 \times 100=30$

6. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$(12+28)(18+42) N=100$
Calculate Specificity in the above tabl
Key: 42 / $18+42 \times 100=70 \%$

7. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
Calculate Positive predictive value in the above tabl
Key: $12 / 12+18 \times 100=40 \%$

8. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

## Clinical Depression

Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
Calculate Negative predictive value in the above tabl
Key: $42 / 28+42 \times 100=60 \%$

9. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
Calculate False-positive rate in the above tabl
Key: $18 / 18+42 \times 100=30 \%$

10. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)
Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
Calculate False-negative rate in the above tabl
Key: $28 / 12+28 \times 100=70 \%$

11. An investigator evaluated 100 patients suffering from major depression as confirmed by the attending psychiatrist. The results were as follows:

Clinical Depression
Present Absent

+ 1218 (12+18)

Test
$-2842(28+42)$
$(12+28)(18+42) N=100$
Calculate Accuracy of a test in the above tabl
Key: $12+42 / 12+18+28+42 \times 100=54 \%$
12. The extent to which a test measures what it was originally designed to measure is described as:

Sensitivity
Specificity
Validity
Reliability
True-positive value
Key: c (Validity)
13. Accuracy of the screening test will depend upon:

Validity
Systemic error
Reliability
Random error

Precision
Key: a (Validity)
14. A pap smear and colposcopic examination for the early detection of cervical cancer and papilloma virus infection constitut

Primary prevention
Secondary prevention
Tertiary prevention

Medical treatment
Surgical treatment
Key: b (Secondary prevention)
15. With X representing the most accurate cutoff point for a diagnostic screening test, what does D represent:

False positives
True positives
False negatives
True negatives
Skewed distribution
Key: a (False positives)

1. A mother brings her four year old child to a doctor with a complaint of intense perianal itching. Despite being fed properly, he has not gained weight for the last few months. The likely condition is:

Enterobiasis
Ascariasis

Scabies
Ankylostomiasis
Filariasis

Key: a
2. A patient presents with fever, rigors and chills. He complains of severe weakness and lethargy. His blood film is positive for ring forms of protozo The likely diagnosis is: (Save

Malaria
Ameobiasis

Balantidiasis
Toxoplasmosis

Leishmaniasis

Key: a
3. A pregnant woman presented with pallor, shortness of breath, lethargy and palpitation. Her blood examination revealed hemoglobin level of $9 \mathrm{gm} / \mathrm{dl}$.

In your opinion what could be the probable deficiency in the woman? (Save Iron

Niacin

Vitamin C
lodine

Globin

Key: a
4. A 30 years old pregnant lady, gravidity 2 parity 1, visited the antenatal clinic at 32 weeks of gestation. She was a known smoker. On physical examination blood pressure was found to be $120 / 80 \mathrm{~mm} \mathrm{Hg}$. Blood examination showed Hb level of $12.5 \mathrm{~g} / \mathrm{dl}$. Ultrasound was suggestive of intrauterine growth retardation. Which factor during pregnancy would have contributed to intrauterine growth retardation? (Save
f. Age
g. Parity
h. Anemia
i. Hypertension
j. Smoking

Key: e
5. A 28 years old pregnant lady, gravidity 1 parity1, visited the antenatal clinic at 32 weeks of gestation. She was a known alcoholi On physical examination blood pressure was found to be120/80 mm Hg. Blood examination showed Hb level of $12.5 \mathrm{~g} / \mathrm{dl}$. Ultrasound was suggestive of intrauterine growth retardation, Microcephaly and developmental delay. Which factor during pregnancy would have contributed to the fetal conditions? (Save
f. Maternal age
g. Parity
h. Anemia
i. Hypertension
j. Alcohol consumption

Key: e
6. A newly married couple visits family planning centre for contraception. Upon investigation the woman has hyperlipidemi The method of contraception which would be used cautiously in this woman is: (Save

Condom
Combined oral contraceptive pill
Second generation IUCD
Mini pill
Nor-plant
Key: b
7. A 35 years old woman was brought to hospital with toxic shock syndrom She was using some method of contraception. The method of contraception which had likely lead to this condition is:

Condom
Diaphragm
Vaginal douching
Oral pills
Norplant
Key: b
8. A 34 years old woman presented in the emergency department to a lady doctor with painful vulvar ulceration. On examination the ulcer had irregular margins with undermined edges. The ipsilateral inguinal lymph nodes were swollen and tender. The most likely diagnosis is:

Syphilis
Herpes
Chancroid
Lymphogranuloma venereum
HIV
Key: c
9. A rubber industry worker presents with abdominal colic and severe anemi His blood examination reveals basophilic stippling of RBCs and microcytic anemi What is the likely diagnosis?

Lead poisoning
Benzene poisoning
Radiation effects
Sideroblastic anemia
Worm infestation
Key: a
10. A 35 years old man working in roofing industry presented to his primary care physician with complaints of dyspnea and chronic dry cough. Chest $X$-ray revealed pulmonary hyperinflation with "honey - comb" appearance and calcified parietal pleural plaques. What is the most likely diagnosis?

Anthrocosis
Asbestosis
Byssinosis
Silicosis
Farmers lung
Key: b
11. In the mica mines of Bihar, out of 329 miners examined, 34.1 percent were found suffering with irritant cough, dyspnoea on exertion and pain in the chest. On chest X-ray there was "snow - storm" appearance in the lung fields. What is the most likely diagnosis?

## Asbestosis

Anthracosis
Siderosis
Silicosis

Tobacosis
Key: d
12. An industrial worker presented with pulmonary tuberculosis. On X- rays Calcification and fibrosis were seen. The likely industry he had worked in is:

Sand blasting
Poultry
Cotton
Agriculture
Sugar
Key a
13. A disease outbreak occurred in India last year. Many patients either presented with enlarged painful lymph nodes or pneumonia with high grade fever and toxicity. High mortality due to pneumonia was also reporte The likely epidemic is: (save

Dengue
Plague
Filariasis
Yellow fever

Malaria
Key: b
14. A mother brought her child with history of paroxysmal cough and restlessness. On examination he showed a loud inspiratory sound and sub-conjunctival hemorrhag On the basis of clinical presentation what should be the drug of choice:

Erythromycin
Ampicillin
Tetracycline
Sulphadiazine
Co- trimoxazole
Key: a
15. A 40 year old tuberculosis patient on ATT for the last two months presented to his physician with complaints of tingling, numbness and loss of peripheral sensation. The likely anti tuberculosis drug to have caused these symptoms is:

Isoniazid
Rifampicin
Streptomycin
Pyrazinamide
Ethambutol
Key: a
16. 10 years old boy presented with high grade fever, chills, aches, cough and generalized weakness. He was diagnosed as a case of influenz The most dreaded complication is:

Encephalitis
Pneumonia

Toxic shock syndrome
Reye?s syndrome
Sub-Conjunctival hemorrhages
Key: b
17. A water sample was taken from a village near Taxil On chemical analysis the fluoride level was found to be $0.03 \mathrm{mg} / \mathrm{lit}$. The likely effect on the body is:

Dental flourosis
Dental caries
Skeletal flourosis
Caries spine
Abdominal colic
Key: b
18. A water sample taken from a water storage tank of a residential area was sent for bacteriological examination in the laboratory. A test of water sample by multiple tube method was found positive, which referred to the presence of:

Coli-form organisms
Fecal streptococci
Nitrites
Cl. Perfringens

Fungi
Key: a
19. An army troop while being transported to Himalayan station had to stay at the altitude of 12,000 feet for 04 days. One of the soldiers developed pulmonary edem The best immediate measure to be taken is:

Antibiotic therapy
Suction of pulmonary fluids
Artificial respiration
Shift the patient to lower altitude
Administer diuretics
Key: d
20. The atmospheric pressure at earth?s surface close to the sea level averages 760 mm of Hg . If a man lives at an altitude of 13000 feet above the sea level for few years, the main physiological effect is:

Decrease in respiration
Increase in concentration of hemoglobin
Decrease in concentration of hemoglobin
Decrease in cardiac output
Increased concentration of urine
Key: b
21. Hospital administration wants to set up a method for safe disposal of infectious wast They have enough expenses. What should be the best option for them?

Single chamber incinerator
Double chamber Pyrolytic incinerator
Microwave irradiation
Screw feed technology
Chemical disinfection
Key: b
22. A 50 years old industrial worker presented to doctor with complaints of whistling, buzzing and deafness. He had been working for 8 hrs in a day with exposure to noise of 90 db and 2000 Hz . What is the most likely cause of his condition?

Age
Stress
Duration of work

Loudness of sound
Frequency of sound
Key: d
23. A 23 years old married woman came to the hospital in Gynae OPD with complaints of vaginal itching and discharg Speculum examination of vagina revealed foul smelling greenish - yellow discharg What is the likely diagnosis?

## Candidiasis

Trichomoniasis
Syphilis
Pelvic inflammatory disease

## Gonorrhea

Key: b
24. To control the rising incidence of non communicable diseases, legislation based on tobacco control will be adopted to prevent onset of the risk behaviour. This prevention will be Primordial

Health promotion
Specific protection
Disability limitation
Rehabilitation

Key. a
25. A mother brings her 10 year old boy to a psychiatrist. She complains that when her boy gets close to the school, he starts getting severe pain in the abdomen which settles upon coming back. His IQ is with in normal limits and his academic record is satisfactory. The clinical presentation is suggestive of

Juvenile delinquency
Psychosomatic disorder
Mental retardation
Educational difficulties

Habit disorder

Key. b
26. A patient presented to a psychiatrist showing minor mental changes. He stated that he experienced rebound lowering in mood in the absence of the drug that he had been taking for constant mental stimulation. The likely drug which he had been taking is:

## Benzodiazepines

Heroine
Methadone
Morphine
Amphetamines
Key e
27. A 30 years old man presented with complaints of loss of appetite and weight. He also admitted his dependence on a substanc On examination he had palmar erythema and ataxic gait. The likely abused substance is:

Barbiturates
Heroin
Alcohol
Tobacco
Cocaine
Key: c
28. A 10 years old boy presented with complaints of fever, accompanied by profuse sweating for the last 1 week. He also complained of multiple joint pains. Serum ASO titre was increase The likely diagnosis is:

Malaria
Dengue
Hepatitis B
Rheumatic fever

## Ricketts

Key: d
29. Cancer registration is important for any cancer control programm It provides a base for assessing the magnitude of problem and for planning the necessary action. If the size for a population based case registry is 6 million it is considered to be:

Inadequate
Very small
Adequate
Very large
Unusually large
Key: c
30. Smokers have risk of lung cancer four times more than non smokers. If smoking indicates causal association this characteristic gives:

Specificity
Strength of association
Coherence

Consistency
Temporal sequence
Key: b
31. The incidence of gonorrhoea is continuously increasing in a particular locality. An investigator reveals that mostly sex workers are living ther This epidemic may be classified as:

Common source single exposure
Common source continuous exposure
Propagated epidemic
Slow epidemic
modern epidemic
key: b
32. A public health physician wants to study the load of hypertension in Rawalpindi district to establish special screening \& treatment services in the mentioned are Which design is more useful for this?

## Cross sectional

Case series
Cohort
Case control
Experimental
Key: a
33. In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing heart disease, a cohort of 1000 women were followed for 5 years. The results were as follows:

Present Absent

A 245
B 75
C 50
D 630
$A+C=295 B+D=705 n=1000$
What is the incidence rate (absolute risk) of endometrial cancer among those who didn?t use oral contraceptives?
$630 /(50+630)$
$75 /(245+75)$
$50 /(50+630)$
$245 /(245+75)$
680/(320+680)

Key: True: c 50/(50 + 630)
34. 10 cases of food poisoning had been reported in hospital, 2 out of these developed mild gastrointestinal symptoms, 4 developed moderate dehydration but recovered and 2 succumbed to the diseas The characteristic of the organism of food poisoning that produces the severest form of the disease is:

Infectivity
Pathogenicity
Virulence
Communicability
Resistibility
Key: с
35. A mother brought her four year old child to the doctor. She gave the history that her child was in close contact with a case of diphtheria in school. She was very anxious about her child and gave history of booster dose of DT 2 years ago. What would be line of management for such a child?

Booster dose of DT with penicillin
Active and passive immunization
Active and passive immunization with chemoprophylaxis
Only keep under surveillance for 1 week
Nothing more required
Key: a
36. A General Practitioner purchased BCG vaccine for his clini He should store this vaccine at his clinic in:

A dark place
Deep freezer
Water carrier
Refrigerator

Shelf
Key: True: d
37. A 5 years old boy is brought to the emergency department with history of dog bit Examination revealed multiple transdermal bites on left leg. The best management for such a patient is:

Anti rabies serum, suturing of wound, TT
Anti rabies serum, suturing of wound, Vaccine
Vaccine, leave wound open, TT, ARS
Vaccine, leave wound open, TT
No Treatment if the dog disappears
Key: c
38. 1 year old child is being treated in Shaukat Khanam Hospital Lahore and getting radiotherapy for carcinom A polio case has been detected in his residential locality. Pediatrician decides to protect him against poliomyelitis by giving:

Human normal immunoglobulin
Human specific immunoglobulin
Oral polio vaccine
Inactivated polio vaccine
Chemoprophylaxis with antiviral drugs
True : d
39. Most important reason for recommending oral polio vaccine in the polio eradication campaign despite availability of a safe injectable vaccine is that, it:

Provides 90\% immunity in one dose
Does not interfere with vertical immunity
Has been donated by WHO

Provides herd immunity
Has less side effects

Key: d
40. A teacher of 4th class brought her student to the school medical officer with complaints of gum bleeding and subcutaneous bruising for last few days. The student looked very pal The clinical picture represents deficiency of:

Tocopherol
Ascorbic acid
Thiamine
Pyridoxine
Cyanocobalamin
Key: b
41. A child of 6 presented to school medical officer with complains of fever, malaise and painful swallowing. On examination a diffuse swelling was observed on the sides of the face below and in-front of the ears. The doctor diagnosed him as a case of mumps. What is the most appropriate management for him?

Analgesics only
Active and passive immunization
Passive immunization
Antibiotics only
Rest, analgesics and balanced diet

Key: e
42. In a health education programme conducted at school about deficiency of micronutrients leading to various infections and high mortality. To avoid susceptibility of children to infection the vitamin supplement to be emphasized more is:

B1

B2

A

D

K
Key c
43. The results of screening test for diabetes in a sample of 1000 people are as under:

400
50
50
500

What is the positive predictive value of this test?
70\%
88\%

68\%
48\%
90\%
Key: b
44. After excision of breast for Ca breast, a surgical reconstruction of breast tissue was don This reflects:

Primary prevention
Secondary prevention
Tertiary prevention
Medical treatment
Surgical treatment
Key: c
45. A screening test is positive in the majority of cases but false positive rate is much higher than true positives this indicates:

Low PPV

Low NPV
Low accuracy
High validity
High specificity

## Key: a

46. A demographer observed that birth rate and death rate of Pakistan is decreasing but birth rate is still more than death rat What do you think in which phase of demographic transition does Pakistan currently exist?

High stationary
Late expanding
Early expanding
Declining
Low stationary
Key: b
47.

Country
1993 GRR

1993 NRR

Burkina Faso
3.50
2.41

United Kingdom
0.86
0.85

Keeping in mind the above figures about Burkina Faso (BF) and United Kingdom (UK) which interpretation is correct:

Low mortality in BF
Low mortality in UK
High fertility in UK
Better education in BF

Replacement level fertility in BF
key: b
48. Many women in a country are educated, independent and they work for earning their lively hood too. When the number of males are expressed in relation to 100 of these females this is:

Sex ratio

Sex rate
Dependency ratio
Literacy rate
Working women ratio
Key: a
49. A man belonging to a poor community presents with diarrhea and dermatitis. He also shows signs of personality and memory dysfunction. His history suggests that his staple diet is maiz The likely diagnosis is:

Pellagra
Korsakoff?s psychosis
Vitamin B12 deficiency
Riboflavin deficiency
Biotin deficiency

Key: a
50. Riboflavin is an important group of water soluble vitamin. Cereals and pulses are relatively good sources of Riboflavin. Most common lesion associated with Riboflavin, which can also be used as an index of state of nutrition of group of children is:

Diahrroea

Follicular keratosis
Angular stomatitis
Dementia
dermatitis
key: c
51. A four year old child presented in an OPD with signs of edema on limbs, blond sparse hair and dermatosis. His weight was $70 \%$ of the standard for his ag The likely condition is:

Nephrotic syndrome
Marasmus

Seborrhoeic dermatitis
Wet beriberi
Kwashiorkor

Key: e
52. A chronic alcoholic was complaining of loss of appetite and pain in lower legs. On examination his gate was ataxi He is suffering from deficiency of:

Niacin
Thiamine

Riboflavin
Folate
Pantothenic acid

Key: b
53. A weight conscious pregnant woman wants information about her requirement of calories per day during pregnancy. You suggest an increase of:

250 kcal
450 kcal
350 kcal
550 kcal
650 kcal
Key: c
54. October 2005 earthquake caused countless deaths. Several NGO?S participated to combat the post disaster phase and the most important point they considered in order of preference was:

Vaccination against infections diseases
Provision of safe water and food
Disposal of dead bodies
Disposal of solid wastes
Vector control
Key: c
55. The effectiveness of an intervention will depend primarily on:

Equity
Equality
Money
Comprehensiveness
Planning and management
Key a
56. To improve the health of the nations, "The Millennium Development Goals" are mainly focused on:

Women education
Involvement of men in RH
Fertility regulation
HMIS

Health system research
Key: a
57. For providing quality health services, community participation plays an essential rol To ensure maximum community participation, which level of health care system should be strengthened?

Primary health care
Secondary health care
Tertiary health care
1st level referral facility
Higher level referral facility
Key: a
58. In a descriptive study the mean is 200 and the standard error is 5, the 95 confidence limits would be:

180 to 200

190 to 200
180 to 210
200 to 220

190 to 210

Key: e
59. An analysis of the race of patients who visit an emergency room reveals that $40 \%$ are white, $25 \%$ are black, $20 \%$ are Native American, and $15 \%$ are Asian. These data would best be depicted graphically with a

Venn diagram

Cumulative frequency graph
Normal curve
Histogram
Pie chart
Key: True: e
60. An investigator gets a positively skewed data on account of having only a small number of simple numerical observations at extremely high values. It will give an over estimate of:

Mean

Median

Mode
Correlation

Modal class

Key a
61. In a household survey conducted on ten families the frequency of family members in different age groups was less than 5 years? $21,5-14$ years? $16,15-64$ years? $77 \&>65$ years? 1 . The relative frequency of members in $15-64$ years age group would be:

47\%
57\%
67\%

77\%

87\%
Key: b
62. A 7 years old child reported to a private hospital with history of snakebit On examination there were petechial haemaorrhages and bleeding from rectum. The toxic ingredient in snake venom responsible for those signs is:

Proteolysin

Neurotoxin
Cholinesterase
Hyaluronidase
Thromboplastin
Key: e
63. In Pakistan about $50 \%$ population is illiterate and smoking is mostly prevalent among the poor. Government has started giving pictorial warnings instead of written, to have a greater impact of health education on people: This strategy is more focused on:

## Message

Receiver

Sender
Channel
Planning
Key: b
64. A medical officer working at BHU in the periphery of Baluchistan noticed that most of the people presented with painful cutaneous ulcers on the exposed parts of the body. Almost all of them gave history that it started as a granular nodule after some insect bit The medical officer realized that they had been bitten by:

Aedes Aegypti

## Phelbotomus

Xenopsylla cheopsis
Ornithotorous Moubata

Glossinae palpalis
Key: b
65. A man reports with fever and rigors; chills and lethargy: His blood CP is positive for crescent like structures related to a parasite involved in the above picture: Which arthropod comes to your mind as a transmitter of this disease:

Mosquito
Louse
Tick

Mite
Flea

Key: a

1. About 2500 deaths were reported in road side accidents during the year 2006 in Pakistan. If the total number of deaths due to accidents is expressed against the mid year population of Pakistan in year 2006 this will give:

Crude death rate
Age specific death rate
Cause specific death rate
Case fatality rate
Proportional mortality rate
2. In a universe comprising of 1500 children less than 5 years of age, 75 children with severe malnutrition were foun If 75 new cases of severe malnutrition were registered over a period of one year, the incidence rate for severe malnutrition during the same year is:

50 / 1000
53 / 1000
55 / 1000
60 / 1000

63 / 1000
3. Every year during the winter season the hospital admissions are more for pneumonia cases. This year also about 358 children with pneumonia were admitted in the Pediatric department of POF Hospital between the months of Jan - Mar 2007. This increased frequency of respiratory infections during winter months is an example of:

Epidemic trend

Cyclical trend
Seasonal trend
Secular trend

Pandemic trend
4. Prevalence measures the burden of disease in a population inclusive of old $\&$ new cases. Prevalence of a disease can be obtained from:

Quasi - experimental study
Cross - sectional study
Case - control study
Cohort study
Intervention study
5. A 55 years old hypertensive patient was admitted in the Medical Ward with cerebral strok After treatment he recovered but was unable to move his right lower lim He was advised physiotherapy. This type of assistance is:

Health promotion
Specific protection
Prompt treatment
Disability limitation
Rehabilitation
6. According to a study conducted by WHO the incidence of polio in Sindh province having a total population of 20 million was 1 during the year 2007, which type of study was this:

Case report
Cross sectional
Case control

Cohort

Ecological
7. An epidemiologist is assigned to conduct a study on 5000 people having hyperlipidemia and those having normal lipid profil He has to keep track of all the participants to observe the development of stroke in these patients to confirm that hyperlipidemia increases the risk of strok This study is:

Retrospective cohort study
Retrospective study
Prospective study
Cross - sectional study
Case - series
8. To compare the death rate of Nepal with the death rate of Pakistan, the most appropriate measure is a comparison between:

Age specific mortality rates
Crude death rates
Maternal mortality rates

Standardized mortality rates
Life expectancy
9. A 40 years old man of 75 kg came to a physician for his routine checkup. His serum cholesterol was found to be $230 \mathrm{mg} / \mathrm{dL}$ and he was diagnosed as hypertensiv The risk factor of this particular condition is classified as:

Physical

## Chemical

Biological
Nutritive
Mechanical
10. Acute hemorrhagic conjunctivitis affected a large proportion of population over a wide geographic area in 1971 and 1981. This spread of disease is:

Epidemic

Sporadic
Pandemic
Endemic

Opportunistic
11. A patient came in emergency with signs of dehydration and severe diarrhe An Intra venous infusion was given to correct electrolytes and fluid levels. He was discharged after 2 days. About 2 months later the patient came back with signs of jaundice and Hepatitis B surface antigen was positiv He did not give history of any event which could have lead to this diseas This hepatitis infection may be labeled as:

Sub clinical
Idiopathic
Opportunistic
Cross infection
latrogenic
12. A cross-sectional study was conducted at Wah Medical College in the year 2006 to measure the period prevalence of smokers among 105 students. Out of them 5 were already smokers and 15 started during 2006, period prevalence of 2006 is:

22\%

19\%

15\%
11\%

10\%
13. In a village of population $10,000,250$ cases of Hepatitis B were reported in the month of July. The point prevalence of Hepatitis B per thousand populations is:

20

25
14. A household survey of 10 families was conducted by students of 4th year MBBS, Wah Medical Colleg In the data they collected, the ages of heads of families were: $32,34,35,36,36,42,44$, $46,48,52$. The mean age of heads of families is

36
38.5

40
40.5

42
15. A woman brings her child to the hospital for mongolism. The possible agent of the disease that comes in your mind is?

Bacteria
Virus
Nutritional factor
Hormonal factor
Chromosomal factor
16. A child of three years comes with complaints of night blindness. On examination conjunctiva is dry and corneal haziness is also seen. There is no history of any other disease or injury. The likely agent type is:

Physical
Chemical
Nutritional

Hormonal
Immunological
17. A man brought his child with complaints of fever, diarrhea and abdominal pain. He gave history of living in an unhygienic small house around a factory area where his son had many friends. He had three more children who also had same complaints off and on. Which environment is likely to have resulted in this condition?

Physical
Chemical
Social
Psychological
Occupational
18. A new drug was introduced in some of patients to assess its usefulness compared with the old on Neither patients nor clinicians who evaluated patients for effect under consideration in this clinical trial knew individual treatment assignments. This method of assignment is known as:

Single blinding
Double blinding
Triple blinding
Randomization
Stratification
19. 10 cases of food poisoning had been reported in a hospital, 2 out of these developed mild gastrointestinal symptoms, 4 developed moderate dehydration but recovered and 2 succumbed to the diseas The characteristic of the organism of food poisoning that produces the severest form of the disease is:

Infectivity
Pathogenicity
Virulence
Communicability
Resistibility
20. The trend in mortality from tuberculosis in England showed a steady fall in years 1855-1965 but thereafter a gradual rise in the incidence of this disease was reporte This type of time trend or fluctuation in disease occurrence is termed as:

Epidemic trend
Cyclical trend
Seasonal trend
Secular trend

Pandemic trend
21. An outbreak of brucellosis in cattle is reported, threatening the health of human population. This outbreak is:

Epizootic
Epornithic
Enzootic

Exotic
Epidemic
22. A survey report in 1960 concluded that there was an increase in asthma deaths with the increased use of pressurized aerosol bronchodilators; although the deaths were more because of the severity of diseas This association is:

Spurious
Temporal
Indirect
Consistency
Coherence
23. In a coal mine the expected deaths of coal worker were 7 per thousand while the deaths that really occurred were 9 . The standardized mortality ratio for coal workers is:
24. At Lahore Grammar School a student of class II developed mumps. He was isolated from other children till swelling subsided and his brother of class IV who looked apparently healthy was also advised to be away from school for about a fortnight as he could have been:

Incubatory carrier
Healthy carrier

## Convalescent carrier

## Temporary carrier

Chronic carrier
25. In a colony located near an industrial area 50 people died due to asphyxia and many developed difficulty in breathing and were hospitalize Within 24 hours. The cause was the leakage of carbon monoxide from a near by chemical plant. The distribution of cases in time is suggestive of:

Propagated epidemic
Slow epidemic
Common source - single exposure

Common source - continuous exposure
Pandemic
26. Cement industry is suspected for more deaths among its workers. So the industrialist gets worried and wants to assess whether more deaths are likely in these workers or not. The measure that predicts the mortality in this industrial group is:

Age specific death rate
Standardized mortality ratio
Cause specific death rate

Proportionate mortality
Case fatality rate
27. The annual report of POF Hospital for the year 2006 shows 200 cases of Myocardial Infarction, 35 cases of Cholecystitis, 105 cases of Pneumonia and 350 cases of Acute Gastroenteritis. The result of this report cannot be generalized on the total population of Wah on account of:

Confounding bias
Memory bias
Selection bias
Berkesonian bias
Interviewer?s bias
28. Increased number of Malaria cases was reported in the time intervals between August to October and March to April. There are 2 different periods in a year, where increased malaria transmission is reporte Such an occurrence of malaria cases in time will give a distribution which is:

Unimodal
Sporadic
Bimodal

Endemic
Multimodal
29. A study was conducted to assess the heights of 30 students. By chance all of the students were found to be of the same height. The standard deviation of this study sample is:

Zero

0--1
$0-+1$
$0-+2$
$0--2$
30. In the medical OPD of teaching hospital of Wah Medical College, Wah Cantt, diastolic blood pressures of 10 patients were as follows:
$80,75,81,79,71,95,75,77,84 \& 90$. The mean of this data is:
80
81

82
83
84

1. In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing endometrial cancer, a cohort of 1000 women were followed for 5 years. The results were as follows:

Present Absent
A 245

B 75
C 50
D 630
$A+C=295 B+D=705 n=1000$
What is the incidence rate (absolute risk) of endometrial cancer among who didn?t use oral contraceptives?
$630 /(50+630)$
$75 /(245+75)$
$50 /(50+630)$
$245 /(245+75)$
Insufficient data
Key: True: c 50/(50 + 630)
2. In an outbreak of cholera in a village of 2,000 population, 20 cases have occurred and 5 die Case fatality rate is:

1\%
.25\%
5\%
25\%
.0025\%
Key: True: d
3. In a population of 1000 , measles coverage is $60 \%$, one child goes out of station and comes back with measles from whom 20 more children get measles. Secondary attack rate of measles is:
0.65\%

5\%
6\%
6.5\%

7\%
Key: True: b

1. Total No. of children=1000
2. No. of immunized $=600$
3. No. of un-immunized=400
4. Primary case=1
5. Secondary attack rate $=20 /(400-1)=20 / 399 \times 100=5 \%$
6. If an epidemiologist while investigating an epidemic makes a graph to plot distribution of cases of disease by the time of onset and gets a polymodal distribution curv The most likely disease is:

Salmonellosis

Staphylococcal food poisoning
Measles
Typhoid

## Hepatitis A

Key: True: c
5. In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing endometrial cancer, a cohort of 1000 women were followed for 5 years. The results were as follows:

Present Absent
A 245
B 75
C 50
D 630
$A+C=295 B+D=705 n=1000$
What is the incidence rate (absolute risk) of endometrial cancer among women who used oral contraceptives in person-years? If the study was carried out for five years.
$630 /(680 \times 5)$
$75 /(320 \times 5)$
$50 /(630 \times 5)$
$75 /(320+5)$
$245 /(320 \times 5)$
Key: True: e 245 / ( $320 \times 5$ )
6. 10 cases of food poisoning had been reported in hospital, 2 out of these developed mild gastrointestinal symptoms, 4 developed moderate dehydration but recovered and 2 succumbed to the diseas The characteristic of the organism of food poisoning that produces the severest form of the disease is:

Infectivity
Pathogenecity
Virulence

Communicability
Resistibility
Key: True: c
7. Public Policies in Pakistan aim at avoiding the underlying reasons for the development of environmental and atmospheric concentration of SO2 to protect the health of peopl It?s an example of

Primordial

Primary
Secondary
Rehabilitation
screening
Key: True: a
8. Influenza pandemic occurs after every 7-10 years. This kind of disease distribution in time is known as:

Secular trend
Short time fluctuation

Cyclical trend
Seasonal trend
Endemicity
Key: True: c
9. In a prospective study of the relationship between oral contraceptive use and the subsequent risk of developing endometrial cancer, a cohort of 1000 women were followed for 5 years. The results were as follows:

## Present Absent

A 245

B 75

C 50

D 630
$A+C=295 B+D=705 n=1000$
What is the relative risk in this study?
[75 / (245 + 75)] / [50 / (50 + 630)]
$[75 /(245+75)] /[630 /(50+630)]$
$[50 /(245+50)] /[630 /(75+630)]$
[245 / (245 + 75)] / [50 / (50 + 630)]
Insufficient data
Key: True: d [245 / (245 + 75)] / [50 / (50 + 630)]
10. If the age incidences curve of leukemia shows two peaks it is suggestive of bimodality. Bimodality usually signifies:

Non homogeneity
Cluster sampling
Large number of observations
Accuracy
Short duration of disease
Key: True: a
11. A doctor is required to study the incidence of silicosis in a stone cutting industry, which study design should he choose:

Longitudinal
Cross-sectional

Ecological surveys
Case reports
Case series report
Key: True: a
12. The health statistics department revealed that the sale of anti-Asthma drugs was more in those countries where Asthma deaths were mor This association may prove wrong when the individual based study designs are conducte This association is an example of:

Ecological fallacy
Berkesonian bias
Indirect association
Temporal association
Specific association
Key: True: a
13. A researcher wanted to study the time sequence to prove the concept of causativity, which design of study should be preferred by the researcher:

Longitudinal
Cross-sectional
Case report
Case series report
Quasi experimental
Key: True: a
14. Smoking leads to esophageal carcinom Coffee intake has its effect on smoking and also esophageal carcinom This factor can distort the results of the study which intends to prove an association between smoking and esophageal cancer. This effect of this factor is known as:

Confounding

Multiple causation
One to one relationship
Dose response relation
Strength of association
Key: True: a
15. The health authorities are launching a smoking cessation program by designing different activities for the smokers. These are very expensive but still useful as a large proportion of lung cancer will be eliminated if smoking is stoppe This proportion of lung cancer can be indicated by:

Relative risk
Prevalence

Attributable risk

Attributable fraction
Incidence density

Key: True: d
16. A researcher was studying maternal mortality in Rawalpindi District. He observed more deaths in women who were brought to hospital and without taking other factors into account concluded that hospital managed cases have more mortality as compared to home deliveries. This is an example of:

Indirect association
Relative risk

Spurious association
Attributable risk

Causal association

Key: True: c
17. In 2005, Pakistan crude birth rate was 36 births per 1000 population and the crude death rate was 9 deaths per 1000 population. What was the population growth rate of the country in that year assuming no migrations?
2.9 \%
2.8 \%
2.7 \%
2.6 \%
2.5 \%

Key: True: c
18. The changes in the size of population are indicated by five stages of demographic transition. Pakistan is currently in the:

First stage
Second stage
Third stage
Fourth stage
Fifth stage
Key: True: b
19. The total number of people in a completed family can be estimated from:

Net reproduction rate
Gross reproduction rate
Contraception prevalence rate
Eligible couple rate
Total fertility rate
Key: True: e
20. Population size is determined by fertility, mortality and migrations. A researcher concluded that Pakistan?s population is increasing on account of high fertility which measure did he rely upon the most to conclude this?

Growth rate

Crude birth rate
Natural increase rate
Total fertility rate

General fertility rate
Key: True: d
21. The number of daughters a new born girl will bear during her life time assuming fixed age specific fertility and mortality rate, refers to which one of the following?

Age specific fertility rate
Gross reproduction rate
Net reproduction rate
Total fertility rate
General fertility rate

Key: True: c
22. Keeping in mind the population pyramid of Pakistan. Which of the following features is most obvious?

Population momentum
Low migration
Higher female mortality
High literacy
Increased life expectancy
Key: True: a
23. If the total number of reported births in Rawalpindi district were 10,000 and deaths were 5,000 in the year 2007. By giving these figures we are referring to:

Absolute numbers

Crude birth rate
Growth rate
Crude death rate

Vital index
Key: True: a
24. Many women in a country are educated, independent and they work for earning their lively hood too. When the number of males are expressed in relation with 100 females this is:

Sex ratio

Sex rate

Dependency ratio
Literacy rate
Working women ratio
Key: True: a
25. Doubling time is another way of expressing population growth. If we suppose that growth rate of Poland remains constant at $0.08 \%$ population would be doubled in about.

800 years
870 years
875 years
880 years
890 years

Key: True: c
26. Demographic cycle has five stages and each country is allotted a different stage according to its distribution of population. For examples if the death and birth rate of a country both are declining then we call it as:

High stationary
Early expanding

Late expanding
Low stationary
Declining
Key: True: c
27. Diarrhoeal cases among children of an urban slum are on a ris Almost all the mothers are illiterate and belong to lower socioeconomic class. It seems difficult to make them understand the use of ORS. What method can provide the best solution in this scenario?

Role playing
Poster competition
Radio Programme
Lectures
T.V commercials

Key: True: a
28. A school child is diagnosed to have chicken pox. He should be isolated from other school children till:

The scabs fall off
Two days after the scabs are formed
Three days after the fever develops
Five days after the development of pustules
Seven days after the development of pustules
Key: True: a
29. In a community, identification of high risk individuals for coronary heart disease and the prevention of risk factors is an example of:

Surveillance

Research

Selective screening

Mass screening
Opportunistic screening
Key: True: d
30. In a village the persons between the ages of $30-50$ years were checked for their fasting blood sugar levels, to detect diabetes Mellitus before the appearance of signs and symptoms. The time interval between diagnosis by early detection and diagnosis due to development of signs / symptoms is called:

Incubation period
Lead time

Serial interval

Latent period
Generation time
Key: True: b
31. Glucose tolerance test is a useful screening test for diabetes. The ability of the test to identify those who have the disease in question is called:

Validity
Yield
Reliability
Sensitivity
Specificity
Key: True: d
32. In a population consisting of 1000 females, Gram-stained cervical smear test was performed to detect gonorrhoe In this example the predictive value was calculated to be $47 \%$, sensitivity $50 \%$ and specificity $90 \%$. The diagnostic power of the test is reflected by:

Sensitivity
Specificity

Predictive value
False negative rate
Accuracy

Key: True: c
33. In a population under study there were 75 cases of hypertension. On further screening another 50 cases were added to the total owing to the characteristic of the test called:

Acceptability
Repeatability
Reliability
Sensitivity
Accuracy
Key: True: d
34. A 22 years old boy was appointed as computer operator in a factory. During his medical examination he was found to be HIV positiv This screening is:

Multiphasic
Targeted
Research

Mass

Opportunistic
Key: True: e
35. For screening of breast cancer self examination by women, mammography and fine needle aspiration were used at the same time in PIMS Islamaba This screening is an example of:

Multiphasic
Targeted
Research

Mass
Opportunistic
Key: True: a
36. The yield of a screening test was increased over a period of 5 years although the trade off between sensitivity and specificity remained the sam It is likely to have increased by increase in:

Validity
Accuracy
Prevalence

Incidence

Reliability
Key: True: c
37. The chest X-rays and sputum analysis for the early detection of tuberculosis constitute:

Primary prevention
Secondary prevention

Tertiary prevention
Medical treatment
Primordial prevention
Key: True: b
38. With X representing the most accurate cut off point for a diagnostic screening test, what does C represent:

False positives

True positives
False negatives

True negatives
Skewed distribution
Key: True: c
(For question 39-46 please refer to following tabl
39-46. An investigator evaluated 150 patients suffering from sore throat for streptococcal infection. The results were as follows:

27
35

10

78
:
39. The ability of the test to correctly identify those who have the disease is:

71\%
72\%

73\%

74\%
75\%
Key: True: c
40. The ability of the test to correctly identify those who do not have the disease is:

65\%
66\%
67\%

68\%
69\%

Key: True: e
41. The ability of the test to correctly identify those who have the disease from all those who test positive:
41.5\%
42.5\%
43.5\%
44.5\%
45.5\%

Key: True: c
42. The ability of the test to correctly identify those who do not have the disease from all those who test negative:
85.6\%
86.6\%
87.6\%
88.6\%
89.6\%

Key: True: d
43. The prevalence of disease in this study is:
24.7\%
25.7\%
26.7\%
27.7\%
28.7\%

Key: True: a
44. The accuracy of this screening test is:

Key: True: c
45. The false-positive rate in this study is:

31\%
32\%
33\%
34\%
35\%
Key: True: a
46. The false negative rate in this study is:

25\%
26\%
27\%
28\%
29\%
Key: True: c
47. 45 Years old man was brought to emergency department of hospital with history of snake bit There was intense local pain, swelling and ecchymosis at site of bit Few hours later bleeding started from the gums, followed by coma and death. The type of snake involved is:

Sea snake
Common krait

Green pit viper
Cobra

Coral snake

Key: True: c
48. A 30 years old lady is bitten by a snak She complains of giddiness, lethargy, muscular weakness and spreading paralysis. The type of snake involved is:

Sea snake
Green pit viper

Elapid snake
Bamboo snake

Russell?s viper
Key: Tue: c
49. A 7 years old child reported to a private hospital with history of snakebit On examination there were petechial haemaorrhages and bleeding from rectum. The toxic principal in snake venom responsible for those signs is:

Proteolysin
Neurotoxin

Cholinesterase
Hyaluronidase

Thromboplastin
Key: True: e
50. Six of the ten family members living in a single room house complain of intense itching with scratching in axillae, groin \& hands; it is more marked at night. The most likely diagnosis is:

Scabies

Dermatitis

Eczema

Psoriasis
Dermatosis
Key: True: a
51. While conducting a house hold survey 4th year students of Wah Medical College collected Data of ten families regarding no of persons in four age groups $<5,5-14,15-64$,
>65. They want to present the \%age distribution of different age groups. The \%age can be depicted by:

Pie chart
Pictogram
Histogram
Line diagram
Scatter diagram

Key: True: a
52. In a study about control of DM II by the oral hypoglycemics. The mean fasting blood sugar level of 150 patients was $100 \mathrm{mg} / \mathrm{dl}$. With standard deviation of $10 \mathrm{mg} / \mathrm{dl}$. From the data FBS of $99 \%$ patients of the given sample will be in the range of:

$$
\begin{aligned}
& 70-130 \mathrm{mg} / \mathrm{dl} \\
& 80-120 \mathrm{mg} / \mathrm{dl}
\end{aligned}
$$

$90-110 \mathrm{mg} / \mathrm{dl}$
$100-130 \mathrm{mg} / \mathrm{dl}$
$70-100 \mathrm{mg} / \mathrm{dl}$
Key: True: a
53. In a study involving 120 hypertensive patients at POF hospital Wah Cantt. The mean serum cholesterol level was found $180 \mathrm{mg} / \mathrm{dl}$ with a sample variance of $25 \mathrm{mg} / \mathrm{dl}$ from the data $2 / 3 \mathrm{rd}$ of patients will have serum cholesterol $\mathrm{mg} / \mathrm{dl}$ in the range of:

175-185
170-190
165-195
180-185
180-195
Key: True: a
54. 200 patients of hepatitis B got admitted in the medical unit of POF hospital Wah Cantt in the year 2007. their serum bilirubin was don The results were as follow:

Mean $=9 \mathrm{mg} / \mathrm{dl}$
Median $=6.5 \mathrm{mg} / \mathrm{dl}$
Mode $=4 \mathrm{mg} / \mathrm{dl}$
The distribution of bilirubin level is:
Normal
Positively skewed
Negatively skewed
Bimodal
Polymodal
Key: True: b
55. In a class of 100 students the mean height of students was 5 feet with the standard deviation of 1 feet. The portion of students that will have height 7 feet would be:

68\%
34\%
16\%
13.5\%

5\%

Key: True: d
56. In 2007 a study was conducted at Wah Cantt to see the efficacy of measles vaccin 50 new cases of measles were reported after vaccination in the year 2007. This reported data is:

Discrete
Continuous

Nominal

Ordinal
Ranked

Key: True: a
57. In a follow up study of five patients admitted to the coronary care unit with a diagnosis of acute MI. The length of stay was found to be $5,8,3,5$ and 9 days. The arithmetic average of the given data is:

3

5

6
5.5

7

Key: True: c
58. A study was conducted to determine the risk of DM II in over weight patients. The sample of 500 patients was taken. The weights were recorde Most of them were found obes Such type of data can be depicted by:

Histogram
Polygon
Line diagram
Pie chart
Scatter diagram

Key: True: a
59. In a study conducted about the choice of oral contraceptive among women of different ages. A sample of 100 women between the ages of $25-45$ years was taken by convenient metho Out of 100 women, 65 women preferred OCPS. Among them $68 \%$ women were between ages of 25$35 y e a r s .5 \%$ of women were between $35-40$ years. The proportion of women that will have age between 40-45 years is.

16\%
27\%

25\%
34\%
13.5\%

Key: True: b
60. An FCPS part II trainee in Medicine has done a research at POF hospital to prove that NPH insulin has better control of DM II than regular insulin. The calculated $P$ value was 0.03 , while the standard for accepting the different was at $P$ value of 0.05 , so he rejected the null hypotheses, what do you think of results.

Alternate hypothesis is correct
Null hypothesis is true
Sample size was small
Null hypothesis wrongly rejected
Insignificant difference
Key: True: a
61. The female students of 4th year conducted a study "Perceptions of mother about neonatal jaundice" they went to paedeatric OPD and ward and took sample of 100 available mothers. Such type of sampling technique is:

Systematic
Random

Stratified
Convenient
Cluster

Key: True: d
62. The four blood groups $A, B, O$ and $A B$ were studied to compare the quantitative serologic different among their antigenic structures. The most appropriate statistical test to make this determination is:

T test

F test
Chi square test
Z test

Coefficient of variance
Key: True: b
63. A physician studied the association between plasma level of rennin and changes in BP. The data can be represented by:

Scatter diagram
Pie chart
Line diagram
Histogram
Bar chart
Key: True: a
64. A study was conducted to see the risk of hepatocellular carcinoma among alcoholi A sample of 100 was taken. Among them 50 were alcoholic and 50 were non alcoholi 10 developed Ca out of which 8 were alcoholic and 2 were non alcoholi Data was arranged in $2 \times 2$ table:

CA Present Ca Absent
$1090 \mathrm{n}=100$

How would you determine the statistical significance of the observed findings?
T test
Z test

F test
Chi square test
Standard error of mean

Key: True: d
65. Of all new cases seen at the curative consultation only new cases with a priority health problem, are reported by the health facility in the monthly FLCF report. The disease included in the list of priority health problems in Pakistan is:

Typhoid
Myocardial infection
Diabetes mellitus
Hypertension
Malaria
Key: True: e

1. Exclusive breast feeding is recommended up to:
a) Two months
d) Eight months
b) Three months
e) One year
c) Six months

Key: True: c
2. Low birth weight infant is one whose weight is:
a) Less than 1.5 kg
d) Less than 3 kg
b) Less than 2 kg
e) Less than 3.5 kg
c) Less than 2.5 kg

Key: True: c
3. The energy provided by 100 ml of breast milk is:
a) 60 Kcal
b) 70 Kcal
c) 80 Kcal
d) 100 Kcal
e) 120 Kcal

Key: True: b
4. Recommended time for commencement of breast feeding is:
a) Immediately after birth
d) Within 24 hours of birth
b) Within 6 hours of birth
e) 2 days after birth
c) Within 12 hours of birth

Key: True: a
5. Incorrect statement about breast milk is:
a) It is rich in $\lg A$
b) It is produced in response to prolactin level
c) It is low in phosphorus as compared to cow's milk
d) It is low in sodium as compared to cow's milk
e) It is rich in vitamin K

Key: True: e
6. Delayed effects of nuclear radiation after nuclear explosion can be studied by:
a) Descriptive studies
d) Cohort studies
b) Case control studies
e) Ecological studies
c) Historical cohort studies

Key: True: c
7. Most common cause of diarrhea during weaning is:
a) High fat content of milk
d) Entrotoxigenic bacteria
b) Milk allergy
e) Teething stress
c) Excessive glucose in diet

Key: True: d
8. Regarding the concentration of nutrients in the breast milk, the incorrect is:
a) $3.5 \%$ fat
b) Lower protein content than that of cow's milk
c) $6.2 \%$ lactose
d) Higher energy supply by 100 ml as compared to cow's milk
e) Lowest water content as compared to animal milks

Key: True: e
9. The ratio of casein to albumin in human milk is:
a) $1: 1$
b) $1: 4$
c) $2: 1$
d) $4: 1$
e) $7: 1$

Key: True: a
10. Practically no shielding is required for:
a) Alpha particles
d) Neutrons
b) Beta particles
e) X-Rays
c) Gamma particles

Key: True: a
11. According to the Millennium Development Goals, child mortality should be reduced by:
a) $1 / 4$
b) $1 / 3$
c) $1 / 2$
d) $2 / 3$
e) $3 / 4$

Key: True: d
12. Cut off point for gestational age to label a baby as Preterm is less than:
a) 28 weeks
b) 32 weeks
c) 37 weeks
d) 38 weeks
e) 40 weeks

Key: True: c
13. On National Immunization days against polio, the vitamin given along with polio vaccine was:
a) Vitamin $A$
d) Vitamin K
b) Vitamin B complex
e) Vitamin E
c) Vitamin C

Key: True: a
14. "Road to health" chart is not used for:
a) Growth monitoring
b) Health education
c) Planning of child health care
d) Identification of risk groups of children
e) Determining intelligence level of children

Key: True: e
15. The age at which a child begins to hold his head erect is:
a) 01 month
b) 02 months
c) 03 months
d) 04 months
e) 05 months

Key: True: c
16. The factor that most adversely affects the growth of child in Pakistan is:
a) Low birth weight
d) Malaria
b) Primary malnutrition
e) Diarrhea
c) Acute respiratory infection

Key: True: b
17. Oral rehydration salts do not contain:
a) Sodium chloride
d) Glucose
b) Calcium lactate
e) Potassium chloride
c) Trisodium citrate dehydrate

Key: True: b
18. The inclusion of Trisodium Citrate in place of sodium by carbonate in ORS is to:
a) Improve chloride absorption
b) Correct acidosis
c) Make it more stable product
d) Improve glucose absorption
e) Provide better electrolyte replacement

Key: True: c
19. The best way to treat mild diarrhea in a child is by:
a) IV fluids
d) Bowel binders
b) ORS
e) Observation
c) Antibiotics

Key: True: b
20. One of the rules regarding EPI vaccination is:
a) Measles vaccine should be given between nine to fifteen months of age
b) Low birth weight babies should not receive any vaccine
c) Measles vaccine should be given even if the child has an attack of documented measles in the past
d) Oral polio vaccine should not be given to a child suffering from mild fever
e) Hepatitis B vaccine should be started at 1 year of age

Key: True: a
21. One important contraindication to vaccination against "Whooping Cough" is:
a) History of convulsions
b) 3rd degree malnutrition
c) History of pertussis in the family
d) Mild Febrile illness
e) Chronic cough

Key: True: a
22. Dose of BCG vaccine for a neonate is:
a) 0.01 cc
b) 0.05 cc
c) 0.25 cc
d) 0.50 cc
e) 1.0 cc

Key: True: b
23. Contraindication to immunization by live attenuated vaccine is:
a) Immunodeficiency
d) Physiological jaundice
b) Fever
e) Low birth weight
c) Malnutrition

Key: True: a
24. Highest neurological side effects are reported with the use of using vaccine against:
a) Tuberculosis
d) Whooping cough
b) Polio
e) Hepatitis
c) Diphtheria

Key: True: d
25. Freeze dried preparation of vaccine is available against:
a) Polio
d) Rubella
b) Tetanus
e) Pertussis
c) Measles

Key: True: c
26. In Nuclear bomb explosion as a rule all living beings and vegetation's char in a radius of:
a) 2 km
b) $2-4 \mathrm{~km}$
c) 6 km
d) $6-9 \mathrm{~km}$
e) 10 km

Key: True: a
27. The unit used for the measurement of radioactivity is:
a) Rem
d) Becquerel
b) Rad
e) Joule
c) Roentgen

Key: True: d
28. In the International System of Units, Roentgen is replaced by:
a) Gray
d) Curie
b) Sievert
e) Joule / Kg
c) Coulomb / kg

Key: True: c
29. A serious complication of DPT vaccination is:
a) Gillian Barre syndrome
d) Reiter's disease
b) Reye's syndrome
e) Serum sickness
c) Toxic shock syndrome

Key: True: b
30. A recognizable clinical sign of Kwashiorkor type of malnutrition is:
a) Edema
b) Obvious Muscle wasting
c) Severe loss of subcutaneous fat
d) Usually good appetite
e) Curly hair

Key: True: a
31. Incidence of Low Birth Weight babies in Pakistan is:
a) $6 \%$
b) $16 \%$
c) $26 \%$
d) $36 \%$
e) $46 \%$

Key: True: c

1. Koplik's spots are the diagnostic sign of one of the following diseases:
a) Rubella
d) Meningitis
b) Whooping cough
e) Mumps
c) Measles

Key: True: c
2. The best measure taken in meningococcal meningitis out-breaks is:
a) Mass chemo-prophylaxis by penicillin
b) Immunization
c) Chlorination of all water supplies
d) Closure of schools
e) Mass screening program

Key: True: b
3. Ticks and mites belong to one of the following classes:
a) Insecta
d) Chilopoda
b) Crustacea
e) None of the above
c) Arachnida

Key: True: c
4. Aedes Egypti mosquito is commonly a vector in the transmission of one of the following diseases:
a) Filariasis
d) Plague
b) Yellow Fever
e) Leishmaniasis
c) Malaria

Key: True: b
5. Which one of the following diseases is transmitted by mite?
a) Scabies
d) Human babesiosis
b) Relapsing fever
e) Plague
c) Rocky Mountain spotted fever

Key: True: a
6. International quarantine is applicable in one of the following:
a) Typhoid fever
d) Viral hemorrhagic fever
b) Yellow fever
e) Relapsing fever
c) Typhus fever

Key: True: b
7. Regarding clinical spectrum of poliomyelitis, approximately one percent of all polio-infections are
a) Abortive polio
d) Paralytic polio
b) In apparent polio
e) Clinical Cases
c) Non-paralytic polio

Key: True: d
8. Which one of the following is true about Staphylococcal food poisoning?
a) Caused by preformed toxin in anaerobic conditions
b) Incubation period is 5-7 days
c) It is treated with antibiotics
d) Neurological signs are commonly present
e) Patient is usually thirsty and secretes less urine

Key: True: e
9. The main mode of transmission of Ancylostoma duodenale is:
a) Ingestion of larva
b) Ingestion of eggs
c) Inhalation
d) Percutaneous
e) Blood transfusion

Key: True: d
10. Which one of the following is true about scabies?
a) House fly is responsible for its spread in community
b) Lesions are most common on scalp
c) May be complicated by secondary infection
d) The causative agent is Chlamydia
e) Scabies is an allergic condition

Key: True: c
11. Among the following which disease is transmitted by a house fly?
a) Viral Encephalitis
b) Dengue fever
c) Filariasis
d) Poliomyelitis
e) Leishmaniasis

Key: True: d
12. The best strategy for the control of pulmonary Tuberculosis as recommended by WHO is:
a) BCG vaccination at mass level
b) Chemoprophylaxis with INH
c) Early case detection and prompt treatment
d) Proper disposal of sputum
e) Awareness

Key: True: c
13. Which of the following is true for Influenza?
a) It is caused by bacteria haemophilus influenza
b) Frequent antigenic mutation of the causative agent is the main limitation of the efficacy of influenza vaccin
c) Period of infectivity is 14 days from the onset of symptoms.
d) Vaccine is not availabl

A chronic carrier state frequently exists.

Key: True: b
14. The most important method of prevention of Dracunculus medinensis (Guinea Worm) infection is by:
a) Washing the hands with soap before eating.
b) Proper sewage disposal.
c) Mass vaccination.
d) Purification of water
e) Eating the properly cooked meat.

Key: True: d
15. Which of the following is true about round worm?
a) It can suck up to 1 cc of blood per day.
b) It belongs to the group of trematodes.
c) The infection takes place by ingestion of eggs of the worm.
d) Only female worm exists in human gut.
e) It is very common in villagers because they walk barefoote

Key: True: c
16. About Oriental Sore which one of the following is correct?
a) It is caused by Leishmania Donovani.
b) The diagnosis is made by taking a smear from the base of ulcer.
c) The disease spreads by bathing in dirty water.
d) Human beings are the only reservoir.
e) Food should be protected from flies to prevent the epidemic of the diseas

Key: True: b
17. Regarding Louse which of the following is not correct?
a) The diseases transmitted by louse, are due to its bite only.
b) Louse can cause Trench fever.
c) DDT is one of the good method of control.
d) Louse can cause Typhus fever.
e) It can cause relapsing fever.

Key: True: a
18. Regarding Rabies which one of the following is true?
a) The disease is caused by a Gram Negative bacterium which is susceptible to any third generation antibiotics.
b) Street Virus is useful for preparing vaccine against Rabies.
c) If a person is severely bitten on face, antirabies vaccine and passive immunization is recommende
d) As the disease is very dangerous, so prophylactic antirabies vaccine should be given to all the persons of community.
e) Rabies can spread from man to man by droplets.

Key: True: c
19. Man is the intermediate host in which one of the following diseases:
a) Malaria
d) Relapsing Fever
b) Filariasis
e) Typhoid Fever
c) Hydatid Disease

Key: True: a
20. Which of the following is a sexually transmitted disease?
a) Hepatitis $A$
d) Tuberculosis
b) Hepatitis E
e) Chicken Pox
c) Chlamydial Infection

Key: True: c
21. Bloody diarrhea is seen in one of the following infections:
a) Shigellosis
d) Hepatitis A Infection
b) Botulism
e) Typhoid
c) Cholera

Key: True: a
22. Rash starting peripherally is a feature of:
a) Epidemic typhus
d) Q-fever
b) Endemic typhus
e) Trench fever
c) Scrub typhus

Key: True: c
23. Which one of the following is a vector of epidemic typhus?
a) flea
d) Soft tick
b) Hard tick
e) Mite
c) Louse

Key: True: c
24. Murine typhus is commonly transmitted by which one of the following?
a) Flea
d) Soft tick
b) Hard tick
e) Mite
c) Louse

Key: True: a
25. Which of the following vectors is responsible for malaria transmission in man?
a) Anopheles mosquito
d) Soft Tick
b) Culex mosquito
e) Flea
c) Aedes mosquito

Key: True: a
26. External incubation period in malaria is best defined by which of the following.
a) The time taken by parasite to produce symptoms in man
b) The time taken by a vector to become infectiv
c) Time taken by Exo Erythrocyte cycle
d) Time taken by Erythrocyte cycle
e) Time taken by parasite to produce gametes

Key: True: b
27. For chemoprophylaxis in the Non-Chloroquine resistant area, the best recommended drug is
a) Chloroquine
b) Chloroquine plus Proguanil
c) Mefloquine
d) Doxycline
e) Malanone

Key: True a
28. Which of the following is not a rash producing infection?
a) Typhoid
c) Measles
b) Dengue
d) Malaria
e) Syphilis
f)

Key: True: d
29. Which one of the following methods will not avoid mosquito bite?
a) Chemoprophylaxis
b) Repellents creams
c) Screen windows
d) Mosquito bed nets
e) Wearing long sleeves and trousers

Key: True: a
30. Which of the following infections is known as "quartan" malaria?
a) Falciparum
d) Algid malaria
b) Vivax
e) Malariae
c) Ovale

Key: e
31. Relapses can occur after many years, in which of the following infections.
a) Plasmodium Malariae
b) Plasmodium Falciparum
c) Hepatitis A
d) Measles
e) Chicken pox

Key: True: a
32. Anaemia in malarial infection is mainly due to one of the following causes.
a) Hemolysis
b) Hemorrhage
c) Nutritional deficiency
d) Bone marrow depression
e) Malabsorption

Key: True: a
33. The time taken by the malarial parasites to develop in mosquito is called
a) Internal incubation period
b) External incubation period
c) Infective period
d) Latent period
e) Generation time

Key: True: b
34. Rupture of the schizonts release merozoites in the blood and is associated with One of the following signs \& symptoms.
a) Rash
d) Splenomegaly
b) Bone pains
e) Vomiting
c) Fever and chills

Key: True: c
35. The asexual cycle of plasmodium malariae infection is usually of
a) 48 hrs
d) 72 hrs
b) Less than 48 hrs
e) 80 hrs
c) 60 hrs

Key: True: d
36. Which one of the following is internationally quarantinable disease?
a) Yellow fever
b) Amoebiasis
c) Malaria
d) HIV
e) HAV

Key: True: a
37. Which one of the following indices used in malaria survey is called Transmission index.
a) Infant parasite rate
b) Parasite rate
c) Spleen rate
d) Sporozoite rate
e) Infant mortality rate

Key: True: a
38. Which one of the following infections is not a protozoal infection?
a) Amoebiasis
d) Giardiasis
b) Filariasis
e) Toxoplasmosis
c) Malaria

Key: True: b
39. All of the following diseases are of bacterial origin except:
a) Plague
d) Tetanus
b) Anthrax
e) Cholera
c) Rabies

Key: True: c
40. The vector commonly involved in the transmission of epidemic typhus fever is
a) Tick
d) Mosquito
b) Flea
e) Mite
c) Louse

Key: True: c
41. The mode of transmission most difficult to prevent is:
a) Person-to-person spread
b) Droplet spread
c) Vector borne spread
d) Vehicle borne spread
e) Transmission through soil

Key: True: e
42. Which one of the following has the highest case fatality rate?
a) Tuberculosis
d) Amoebiasis
b) Diphtheria
e) Ascariasis
c) Measles.

Key: True: c
43. Which one of following is incorrect regarding the spread of infection?
a) Symptom less carrier can spread an infection.
b) Rabies can spread through contaminated hands.
c) An insect vector is the cause of malaria
d) Diarrheal diseases commonly spread by polluted drinking water.
e) AIDS can spread through contaminated blood and blood products.

Key: True: B
44. Which one of the following statements is not true regarding Lice?
a) Lice belong to phylum arthropoda and undergo incomplete metamorphosis.
b) Faeces of a louse which has fed on the blood of a patient of typhus fever $2-6$ days previously can transmit infection.
c) Pediculosis is a viral disease transmitted by the bite of a body lous
d) Relapsing fever occurs when an infected louse is crushed on the skin.
e) Dusting powder containing 10\% DDT is effective against all types of Pediculosis.

Key: True: c
45. Which of the following is untrue regarding characteristics of sandfly?
a) In scientific terminology it is known as Musca domestic
b) It can be differentiated form mosquito by the presence of erect lanceolate wings.
c) Its metamorphosis is complet
d) It generally remains confined to, 50 yards of their breeding places.
e) They are incapable of flying over long distances.

Key: True: a
46. Which of the following species of sand-fly transmits kala-azar?
a) Sergentomyta Punjabensis
b) Phlebotomus sergenti
c) Phlebotomus papatasii
d) Phlebotomus agrentipes
e) None of the above

Key: True: d
47. Which one of the following diseases is transmitted by Tsetse fly?
a) Trypanosomniasis
b) Onchocerciasis
c) Chagas disease
d) Q-fever
e) Scabies

Key: True: a
48. All of the following diseases are transmitted by housefly except:
a) Typhoid fever
d) Conjunctivitis
b) Paratyphoid fever
e) Pediculosis
c) Cholera

Key: True: e
49. Which one of the following is not included among the genera of mosquito?
a) Anopheles
d) Mansonoides
b) Culex
e) Simulum
c) Aedes

Key: True: e
50. Which of the following is not a characteristic of hard ticks?
a) Head situated at anterior en
b) Thousands of eggs laid at one sitting
c) Scutum is present on the body
d) It transmits tick typhus
e) It can stand starvation for a long time

Key: True: e
51 Which one of the following is not true regarding characteristic of Rattus rattus type of rodents?
a) Slim \& slender body
b) Large ears
c) Big \& prominent eyes
d) Tail longer than the combined head \& body
e) Muzzel broad \& blunt

Key: True: e
52. Complication of varicella infection include which one of the following
a) Pneumonia
d) Parotitis
b) Thrombocytopenia
e) Pancreatitis
c) Arthritis

Key: True: a
53. Regarding mumps which one of the following is true?
a) Submaxillary \& submandibular glands may never be involved
b) $70 \%$ infections occur in children under age of 15 years
c) Its incubation period varies from 4-7 days
d) In $75 \%$ cases it is complicated by epididymoorchitis
e) Pancreatic involvement is a potentially serious manifestation of mumps

Key: True: e
54. Regarding influenza which one of the following is not true?
a) In this disease, death is often due to pneumonia
b) Its virus belongs to myxovirus family
c) Its incubation period is $24-72 \mathrm{hrs}$.
d) Man is not the only reservoir of influenza
e) It's one of the complications is activation of tuberculosis

Key: True: e
55. Orchitis is the complication commonly associated with
a) Measles
b) Mumps
c) Rubella
d) Influenza
e) Diphtheria

Key: True: b
56. The drug of choice for carriers and contacts in meningococcal meningitis is
a) Penicillin
b) Chloramphenicol
c) Rifampicin
d) Sulfadiazine
e) Cephalosporin

Key: True: c
57. The validity of yellow fever vaccination certificate begins
a) 6 days after the date of vaccination
b) 10 days after the date of vaccination
c) 14 days after the date of vaccination
d) 21 days after the date of vaccination
e) 8 days after the date of vaccination

Key: True: b
58. The second host involved in transmission of Diphyllobothriasis
a) Snail
d) Crab
b) Swine
e) Dog
c) Fish
f)

Key: True: c
59. The intermediate host involved in transmission of Toxocariasis
a) Snail
d) Crab
b) Swine
e) Dog
c) Fish

Key: True: e
60. The intermediate host involved in transmission of Cysticercosis
a) Snail
d) Crab
b) Swine
e) Dog
c) Fish

Key: True: b
61. Mite acts as a vector in which one of the following diseases?
a) Rocky Mountain spotted fever
b) Boutonneus fever
c) Rickettsial pox
d) Q fever
e) Queensland tick typhus

Key: True: c
62. Which one of the following is true regarding vibrio cholerae exotoxin?
a) It acts only on stomach
b) It acts only on jejunum
c) It acts on colon
d) It acts on small intestine
e) It acts on sigmoid colon and rectum

Key: True: d
63. Which one of the following is not the mode of spread of cholera?
a) Infected flies
b) Contaminated water
c) Direct contact
d) Bottle feeding of infants
e) Poor sanitation

Key: True: c

1. Most important factor which makes the smoking cessation program successful is:
a) The desire of the smoker to quit
b) Availability of replacement therapy
c) A well planned program
d) The advice by a competent doctor
e) Follow up program
2. Which one is incorrect about tobacco smoking?
a) The babies born to mothers, who smoke, weigh on average 200g, less at birth than those of non-smokers'
b) It is responsible for about 3 million deaths/year in the world
c) In developed world per capita consumption of tobacco is increasing
d) Dose-response relationship is seen in cigarette smoking and lung cancer
e) Withdrawal symptoms include irritability, sleep problems and tremors.
3. Self-administration of a drug for non-medical reasons in quantities and frequencies which may impair an individual's ability to function effectively and which may result in social, physical or emotional harm is best named as
a) Drug dependence
d) Self-medication.
b) Drug tolerance
e) Drug therapy
c) Drug abuse
4. Marijuana is derived from which one of the following plants?
a) Cannabis
d) Mushrooms
b) Morning Glory
e) Cactus
c) Coca bush
5. Which one of the following is included in pneumoconiosis?
a) Anthracosis
b) Sarcoidosis
c) Psittacosis
d) Aspergillosis
e) Salmonellosis
6. Which one of the following is not an example of organic dust?
a) Cane fiber
b) Tobacco
c) Cotton dust
d) Grain dust
e) Asbestos
7. Foundry workers may suffer from one of the following diseases as a result of occupational exposure:
a) Silicosis
b) Asbestosis
c) Stomach cancer
d) Lung cancer
e) Anthracosis
8. Regarding the characteristic of alcohol dependency syndrome, which of the following is not true?
a) Tolerance is a common feature
b) Withdrawal symptoms are common
c) Narrowing of drinking repertoire
d) Delirium tremens demands emergency care
e) No genetic tendency is expected
9. In case of silicosis, silica particles of the following size are the most dangerous:
a) 0.5-3 microns
b) 3-5 microns
c) 5-8 microns
d) 5-10 microns
e) 10-15 microns
10. Which one of the following is associated with Baggassosis?
a) Cement industry
b) Rock Mining
c) Card Board industry
d) Cotton industry
e) Stone blasting
11. Which one of the following level of lead in urine indicates lead exposure \& lead absorption?
a) 0.8 mg
b) $>0.2 \mathrm{mg}$
c) $>0.4 \mathrm{mg}$
d) $>0.5 \mathrm{mg}$
e) $>0.6 \mathrm{~m}$
12. Regarding ergonomics which one of the following is not true?
a) It is an important part of occupational health
b) It is the study \& design of working setup
c) It is useful to achieve the best mutual adjustments of man \& his work
d) It means fitting the job to the worker
e) It refers to the selection of the best individuals to work
13. Which one of the following is the confirmation of asbestosis?
a) 10 years exposure to asbestos dust
b) Progressive fibrosis of lung
c) Presence of asbestos bodies in sputum
d) Snow-storm appearance in the lungs on x-rays
e) Pulmonary tuberculosis
14. Which one of the following statements is true for farmer's lung regarding its causation?
a) It occurs due to inhalation of fumes
b) It occurs due to inhalation of moldy hay or grain dust
c) It occurs due to inhalation of free silica or silicon-dioxide
d) It occurs due to inhalation of cotton fiber dust
e) It occurs due to inhalation of sugar-cane dust
15. Which one of the following is the major cause of skin cancer due to occupational exposure?
a) Aromatic amines
b) Coal tar
c) Soot
d) Radium and roentgen rays
e) Ultraviolet light
16. Which one of the following substances is causally associated with pneumoconiosis?
a) Sulfur oxide
b) Nitrogen oxides
c) Oil fumes
d) Dust particles
e) Cigarette smoke
17. Most common asbestos-related tumor in humans is
a) Basal cell carcinoma
b) Carcinoma of the colon
c) Laryngeal carcinoma
d) Peritoneal mesothelioma
e) Pleural mesothelioma
18. Which one of the following is not true regarding drug addiction?
a) Drug and alcohol addiction has three phases; tolerance, habituation and dependenc
b) Tobacco chewing is the most common addiction.
c) Habituation is defined as the psychological need to get a dose of drug.
d) Heroin and cocaine both tend to produce tolerance and physical dependence
e) Drug addiction should be classified as medicosocial problem.
19. Ganja is obtained from which one of the following plant sources:
a) Cannabis indica
b) Coca leaves
c) Poppy seeds
d) Ergot alkaloid plant
e) Lathyrus sativus
20. Which of the following produces the worst type of physical dependence?
a) Caffeine
d) L.S.D
b) Marijuana
e) Ganja
c) Heroin
21. Which one of the following is called a superman's drug?
a) Nicotine
d) Cocaine
b) Ethyl alcohol
e) Marijuana
c) Amphetamine
22. Fetal alcohol syndrome is characterized by which one of the following
a) Phocomelia
b) Excess lanugo hair
c) Mental retardation
d) Increased birth weight
e) Single palmer crease
23. Which one of the following is true regarding occupational health?
a) The term occupational diseases does not include infectious diseases
b) Occupational health service is a comprehensive health car
c) Ergonomics is a specialized medical disciplin
d) Occupational health is a part of primary health car
e) Pre-placement examination of workers is not mandatory.
24. Which one of the following cancers is not included in occupational cancers?
a) Skin cancer
d) Leukemia
b) Lung cancer
e) Breast cancer
c) Bladder cancer
25. Carbon monoxide binds with hemoglobin to form carboxyhemoglobin. Which one of the following statements about carbon monoxide is not true?
a) The background level of carboxyhemoglobin in the blood is about 0.4 percent
b) Smoking one pack of cigarettes a day increases the background level tenfold
c) The affinity of carbon monoxide for hemoglobin is 200 times more than that of oxygen
d) Carboxyhemoglobin levels of greater than 25 percent can be fatal
e) A characteristic sign of carbon monoxide poisoning is acrocyanosis
26. Neuropathic symptoms are not associated with chronic exposure to:
a) Mercury
b) Lead
c) Arsenic
d) Sulfur dioxide
e) Nitrous oxide
27. Electrical injury cannot cause:
a) Death
b) Acute renal failure
c) Myoglobinuria
d) Carpal tunnel syndrome
e) Vascular thrombosis
28. Which one of the following is the major source through which lead is absorbed in the human blood stream?
a) Air
b) Water
c) Lead-based paint
d) Improperly cooked food
e) Canned food
29. Which one of the following systems or organs of the human body is affected the most due to occupational exposure to toxic materials?
a) The respiratory system
b) The digestive system
c) The skin
d) The eyes
e) The heart and blood vessels
30. Regarding tobacco \& health, which is not true?
a) Smoking in pregnancy may lead to increased perinatal mortality
b) The use of tobacco can increase the risk of bronchogenic carcinoma
c) Problems arising from use of tobacco are mainly chronic in nature
d) Tobacco can be regarded as a habit forming addiction
e) Smoking in pregnancy may lead to cardiac anomalies in the fetus
31. One of the following is not a sudden disaster:
a) Storm
b) Draught
c) Land sliding
d) Volcanic eruption
e) Nuclear explosion
32. Wearing a crash-helmet while driving a motor-bike is included in which level of prevention.
a) Health promotion
b) Specific protection
c) Early diagnosis\& prompt treatment
d) Disability limitation
e) Rehabilitation
33. "Any loss or abnormality of psychological, physiological or anatomical structure or function" is known as:
a) Injury
d) Disability
b) Accident
e) Handicap
c) Impairment
34. Vertical transmission is not seen in one of the following.
a) Yellow Fever
d) HBV
b) Toxoplasmosis
e) AIDS
c) Rubella virus
35. In prevention of traffic accidents the most effective measure is:
a) Licensing of drivers
b) Provision of seat belts
c) Inspection of vehicles periodically
d) Enforcement of traffic laws
e) Medical inspection of drivers every six months
36. Which of the following is not a contraindication for oral contraceptive use?
a) CA breast
d) Cardiac abnormalities
b) Liver disease
e) Nulliparity
c) Migraine
37. The additional energy requirement for a woman during pregnancy is
a) $150 \mathrm{kcal} /$ day
b) $300 \mathrm{kcal} / \mathrm{day}$
c) $400 \mathrm{kcal} /$ day
d) $550 \mathrm{kcal} /$ day
e) $600 \mathrm{kcal} / \mathrm{day}$
38. Increased incidence of ectopic pregnancy is associated with which one of the following contraceptive methods:
a) Intra Uterine Contraceptive Devices
b) Combined oral pills
c) Spermicidal gels
d) Safe period method
e) Diaphragm
39. If Rh positive baby is born to Rh negative mother than a dose of Rh anti $D$ should be given to the mother within:
a) 72 hours
d) A month
b) A week
e) A yea
c) 15 days
40. After finishing 28-pill packet of Oral Contraceptive Pills next packet should be started on:
a) Very next day
b) Day 2 of menstruation
c) Day 5 of menstruation
d) Day 7 of menstruation
e) Day 10 of menstruation
41. Maximum compliance by the user, is required in use of:
a) Oral contraceptive pills
b) Injections
c) Norplant
d) Tubal ligation
e) Intra uterine contraceptive devices
42. Low birth weight infant is the one whose weight is:
a) Less than 1.5 kg
b) Less than 2 kg
c) Less than 2.5 kg
d) Less than 3 kg
e) Less than 3.5 kg
43. Removal of IUCD is strongly indicated in case of:
a) Uterine bleeding
b) Uterine cramps
c) Serous vaginal discharge
d) Pregnancy
e) Purulent vaginal discharge
44. Exfoliative cytology is a screening test to detect cancer of:
a) Ovaries
d) Pancreas
b) Fallopian tubes
e) Colon
c) Cervix
45. The perfect APGAR score is:
a) $0-3$
b) $4-6$
c) $7-8$
d) $9-10$
e) $10-15$
46. Which one of the following is false regarding reproductive health in Pakistan?
a) Pakistan has a high maternal mortality rate
b) According to WHO a newborn baby weighing $<2.5 \mathrm{~kg}$ is classified as low birth weight baby
c) Toxemia of pregnancy occurs due to intake of toxic substances in pregnancy
d) An MCH centre is a first level care facility
e) Prevention of cancer of the reproductive tract is also included in reproductive service
47. Which one of the following is not true regarding domiciliary midwifery services?
a) These refer to delivery services at home
b) Chances of acquiring infection both in mother and child are less in home environment
c) A doctor from maternal and child health centre invariably conducts deliveries
d) It is better to refer high risk pregnancy to a hospital
e) These are recommended as they are best suited to our socio-cultural settings
48. Which one of the following is most likely to result after bilateral vasectomy?
a) Impotency
b) Infertility
c) Aspermia
d) Loss of libido
e) Testicular atrophy
49. In the day time earth quake, which is the commonest injury out of the following?
a) Fracture of pelvis
b) Fracture of humerus
c) Fracture of skull
d) Fracture of spine
e) Fracture thorax
50. In the post-disaster phase the most important point in order of preference is:
a) Vaccination against infectious diseases
b) Provision of safe water, food \& clothing
c) Disposal of dead bodies
d) Disposal of solid wastes
e) Vector control
51. Most common hazard related to oral contraceptive use is:
a) Breast cancer
d) Thromboembolism
b) Vaginal cancer
e) Lung cancr
c) Osteoporosis
52. Concerning breast feeding which of the following is true?
a) Feeding of newborn should commence on the second day after birth
b) Colostrum contains different antibodies
c) Breast milk is deficient in iron
d) Breast feeding is contraindicated by women with tuberculosis
e) It is a good source of $\operatorname{IgE}$ immunoglobulins for the baby
53. Average life of sperms in the female genital tract is up to:
a) 6 hours
b) 12 hours
c) 24 hours
d) 48 hours
e) 72 hours
f)
54. Fertilization takes place in which one of the following sites?
a) Fallopian tube
b) Uterus
c) Cervical canal
d) Peritoneal cavity
e) Posterior fornix
55. Impotency is most commonly associated with which one of the following conditions:
a) Depression and anxiety
b) Inguinal hernia
c) Cardiac diseases
d) Urinary tract infection
e) Gonorrhea
56. The information on previous disaster lacks in respect of:
a) Number of deaths
b) Number of injured
c) Types of injuries
d) Physical damage
e) Psychological damage
57. After finishing 21-pill packet of Oral Contraceptive Pills next packet should be started on:
a) Very next day
b) Day 2 of menstruation
c) Day 5 of menstruation
d) Day 7 of menstruation
e) Day 10 of menstruation
58. "TORCH" stands for diseases to be screened during pregnancy, which one of the following is not included in this?
a) Toxoplasma gondii
b) Cytomegalovirus
c) Herpes
d) Rubella
e) Coxsackie B
59. Which one of the following is not included in the duties of traditional birth attendants?
a) To conduct aseptic delivery
b) To give health education
c) To give injection of tetanus toxoid
d) To register births
e) To assist in breast feedings
60. Additional Calcium requirement during the first 6 months of lactation is:
a) $400 \mathrm{mg} /$ day
b) $550 \mathrm{mg} /$ day
c) $600 \mathrm{mg} /$ day
d) $750 \mathrm{mg} /$ day
e) $800 \mathrm{mg} / \mathrm{day}$
61. Recommended dose for iron during pregnancy is:
a) $24 \mathrm{mg} /$ day
b) $32 \mathrm{mg} /$ day
c) $40 \mathrm{mg} /$ day
d) $60 \mathrm{mg} /$ day
e) $50 \mathrm{mg} /$ day
62. Which one of the following combinations explains the DPT vaccine?
a) Toxoid, live and killed
b) Toxoid, killed and Toxoid
c) Live, killed and Toxoid
d) Killed, killed and Toxoid
e) Toxoid, killed, live
63. Which one of the following is an absolute contraindication for administration of pertussis vaccine?
a) Diarrhea
b) Fever
c) Malnutrition
d) Convulsions
e) Jaundice
64. All of the following are true regarding BCG vaccination reactions except:
a) Ulceration with crust
b) Disseminated BCG infection
c) Convulsions
d) Suppurative lymphadenitis
e) Osteomyelitis
65. Which one of the following is not true regarding oral polio vaccine?
a) It helps in Herd immunity
b) All the three serotypes are present in this vaccin
c) It is difficult to maintain cold chain
d) Immunity takes a long time to develop
e) Its dose is three drops
66. All of the following are contraindications for oral polio vaccine except:
a) Pregnancy
b) Dysentery
c) Polio epidemic
d) Malignancy
e) Patients receiving steroid therapy
67. Bivalent vaccine of typhoid contains:
a) S. typhi + S. paratyphi A
b) S. typhi + S. paratyphi B
c) S. paratyphi A + B
d) S. paratyphi $B+C$
e) S. paratyphi A + C
68. The best vaccine against rabies for man is:
a) Sheep brain vaccine
b) Inactivated duck embryo vaccine
c) Human diploid cell vaccine
d) Tissue culture vaccine
e) Suckling mouse brain vaccine
69. Active immunization after exposure is given in:
a) Cholera
b) Plague
c) Rabies
d) Typhoid
e) Measles
70. Which one of the following vaccines gives immunity for the longest duration?
a) Cholera
b) Typhoid
c) Yellow fever
d) Chickenpox
e) Hepatitis
71. Salk vaccine is a:
a) Capsule derived
b) Live attenuated vaccine
c) Killed vaccine
d) Toxoid
e) Recombinant DNA
72. Ideal temperature for DPT storage:
a) Room temperature
b) 4 to $8^{\circ} \mathrm{C}$
c) 0 to $-10^{\circ} \mathrm{C}$
d) $-10^{\circ} \mathrm{C}$ to $-20^{\circ} \mathrm{C}$
e) None of the above
73. Which one of the following is true regarding immunoglobulin?
a) $\lg A$ is a major immunoglobulin of serum
b) $\lg A$ is responsible for immediate allergic anaphylactic reaction
c) $\operatorname{lgE}$ comprises $10 \%$ of normal serum immunoglobulins
d) IgG antibody has high agglutinating \& complement fixing ability
e) $\operatorname{lgG}$ is major serum Immunoglobulin comprising more than $75 \%$ of total
74. Which of the following diseases confers temporary vertical immunity?
a) Influenza
b) Tuberculosis
c) Tetanus
d) Measles
e) Cholera
75. The number of Tetanus Toxoid doses for a woman of childbearing age is?
a) One
b) Two
c) Three
d) Four
e) Five
76. A person is exposed to an antigen for the first time, the type of antibody to appear first in his blood is:
a) $\lg A$
b) $\operatorname{lgD}$
c) $\operatorname{lgG}$
d) $\operatorname{lgM}$
e) $\lg E$
77. Which one of the following is included in pneumoconiosis?
a) Anthracosis
b) Sarcoidosis
c) Psittacosis
d) Aspergillosis
e) Salmonellosis
78. Foundry workers may suffer from one of the following diseases as a result of occupational exposure:
a) Silicosis
b) Asbestosis
c) Stomach cancer
d) Lung cancer
e) Anthracosis
79. Inhalation of cotton fiber dust for a long period of time leads to:
a) Byssinosis
b) Baggassosis
c) Anthracosis
d) Siderosis
e) Farmer's lung
80. Which one of the following size particle causes pneumoconiosis?
a) 0.5-3 microns
b) 3-5 microns
c) 5-8 microns
d) 5-10 microns
e) 10-15 microns
81. Regarding ergonomics which one of the following is true,
a) It is an important part of occupational health.
b) It is the study \& design of working setup.
c) It is useful to achieve the best mutual adjustments of man \& his work.
d) It means fitting the job to the worker.
e) All of the above
82. Which one of the following diseases is found almost exclusively among persons who have worked with or have been exposed to asbestos?
a) Bronchogenic carcinoma
b) Byssinosis
c) Pleural mesothelioma
d) Laryngeal carcinoma
e) None of the above
83. Which one of the following is the major cause of skin cancer due to occupational exposure?
a) Lead
b) Anthracene
c) Canola oil
d) Radium and roentgen rays
e) Ultraviolet light
84. Exposure to methyl mercury (organic mercury) may cause all of the following conditions except:
a) Personality disorders
b) Gingivitis
c) Cirrhosis
d) Visual defects
e) Tremors
85. Carbon monoxide binds with hemoglobin to form carboxyhemoglobin. All of the following statements about carbon monoxide are true except
a) The background level of carboxyhemoglobin in the blood is about 0.4 percent
b) Smoking one pack of cigarettes a day increases the background level tenfold
c) The affinity of carbon monoxide for hemoglobin is 200 times more than that of oxygen
d) Carboxyhemoglobin levels of greater than 25 percent can be fatal
e) A characteristic sign of carbon monoxide poisoning is acrocyanosis
86. The development of neuropathic symptoms is associated with chronic exposure to all of the following substances except:
a) Mercury
b) Lead
c) Arsenic
d) Sulfur dioxide
e) Organophosphates
87. Substances thought to be related to bronchogenic cancer include all except:
a) Nickel
d) Copper
b) Arsenic
e) Chromium \& Chromates
c) Beryllium
88. Workers in the rubber and aniline dye industries, compared with workers in other industries, have an increased incidence of bladder cancer that has been related to occupational exposure to
a) 2-amino-naphthalene ( $ß$-naphthyl-amin
b) N-dimethy1-4-aminoazobenzene
c) N -methy1-4-aminoazobenzene (MA
d) 2-acety1-aminofluorene (AAF)
e) Nitrosamines
89. Which one of the following is the causative agent for "Farmer's lung"?
a) Asbestos
d) Tobacco
b) Cane fiber
e) Grain dust
c) Cotton dust
f)
90. Which one of the following is true regarding occupational health?
a) The term occupational diseases does not include infectious diseases
b) Occupational health service is a comprehensive health car
c) Ergonomics is a specialized medical disciplin
d) Occupational health is a part of primary health car
e) Pre-placement examination of workers is not mandatory.
91. Which one of the following is not true regarding Pneumoconiosis?
a) Byssinosis is due to inhalation of cotton dust
b) Anthracosis is due to inhalation of anthrax spores
c) Baggassosis is an occupational hazard of workers in paper mills.
d) Asbestosis predisposes to pleural mesotheliom
e) All Pneumoconiosis are reversible
92. 30 years old married woman was advised X-Ray abdomen. To prevent radiation hazard to the baby in this woman, the doctor should take history of:
a) Hypersensitivity to radiation
b) Menstrual cycle
c) Previous exposure to X-Ray
d) Previous abortions
e) Genetic history
93. Which of the following is the most sensitive indicator of MCH (maternal and child health) services?
a) Anaemia in pregnant woman
b) Contraceptive prevalence rate
c) Maternal mortality rate
d) Under five mortality rate
e) Literacy rate
94. The average weight gain for a pregnant woman with BMI $20-25$ should be
a) 11.5 to 18 kg
b) 11.5 to 16 kg
c) 7 to 11.5 kg
d) 12.5 to 18 kg
e) 10 to 15 kg
95. A Pap smear and colposcopic examination for the early detection of cervical cancer is:
a) Primary prevention
b) Secondary prevention
c) Tertiary prevention
d) Medical treatment
e) Surgical treatment
96. The most commonly described anomalies associated with congenital rubella include all the following except.
a) Cataracts
b) Sensorineural deafness
c) Microcephaly
d) Patent ductus arteriosus
e) Hutchinson's tooth
97. The additional energy requirement for a woman during pregnancy is
a) $150 \mathrm{kcal} /$ day
b) $300 \mathrm{kcal} /$ day
c) $400 \mathrm{kcal} /$ day
d) $550 \mathrm{kcal} /$ day
e) $600 \mathrm{kcal} /$ day
98. If Rh positive baby is born to Rh negative mother than dose of Rh anti $D$ should be given to mother.
a) Within 72 hours
d) Within a month
b) Within a week
e) Within a year
c) Within 15 days
f)
99. The ideal minimum number of antenatal visits is:
a) Three
d) Twelve
b) $\operatorname{Six}$
e) Fifteen
c) Five
f)
100. Low birth weight infant is one whose weight is:
a) Less than 1.5 kg
d) Less than 3 kg
b) Less than 2 kg
e) Less than 3.5 kg
c) Less than 2.5 kg
101. The most common cause of early neonatal mortality is:
a) Low Birth Weight
b) Acute Respiratory Infections
c) Malnutrition
d) Malaria
e) Jaundice
102. The most common cause of post neonatal mortality is:
a) Low birth weight
b) Acute Respiratory Infections
c) Malnutrition
d) Malaria
e) Jaundice
103. Which one of the following is not true regarding domiciliary midwifery services?
a) It refers to delivery services at hom
b) Chances of acquiring infection both in mother and child are less in home environment.
c) A doctor from maternal and child health center invariably conducts deliveries.
d) It is better to refer high risk pregnancy to a hospital.
e) It is the lady health visitor or a trained birth attendant who conducts delivery
104. The most common clinical presentation of cytomegalovirus infection at birth is:
a) Hepatosplenomegaly
b) Hepatitis
c) Anemia
d) Cerebral calcifications
e) Retinitis
105. Cerebral malaria is a complication of which of the following Plasmodia infections.
a) Falciparum
b) Vivax
c) Malariae
d) Ovale
e) Mixed infection by vivax and ovale
106. A patient who has come from India, reports to a health facility with generalized aches and pain and rash on the body excluding palms and soles. The most likely diagnosis is:
a) scarlet fever
b) Trypanosomniasis
c) Malaria
d) Dengue
e) Yellow Fever
107. The best method recommended by WHO for malaria control in endemic areas is:
a) The use of Pyrethrum impregnated bed nets
b) Regular use of Chloroquine
c) Genetic Control of Mosquitoes
d) Vaccination
e) Passive immunity by anti-sera
108. Which of the following is not a rash producing infection?
a) Typhoid
b) Dengue
c) Measles
d) Malaria
e) Syphilis
109. Which one of the following is internationally quarantinable disease?
a) Yellow fever
b) Amoebiasis
c) Malaria
d) HIV
e) HAV
110. Diagnosis of tuberculosis is mainly confirmed by:
a) Mass miniature radiography
b) Sputum microscopy
c) Sputum culture
d) Tuberculin test
e) Blood culture
111. For every case of polio, the estimated number of sub clinical cases are:
a) 10
b) 50
c) 100
d) 500
e) 1000
112. All of the following are water borne diseases except:
a) Poliomyelitis
b) Paratyphoid fever
c) Tuberculosis
d) Weil's Disease
e) Guinae worm disease
113. Which of the following is not true for whooping cough?
a) It is prevented by a killed vaccine
b) Its chronic complication include pleural and bronchial carcinoma
c) Its acute complication are bronchitis and bronchopneumonia
d) There is no specific immunoglobulin available for whooping cough
e) The causative agent of the disease is a gram negative bacteria
114. All of the following are true for meningitis except
a) The causative agent of meningitis commonly seen in children under two years of age is haemophilus influenza
b) It is transmitted by infected droplets of the patients
c) Rifampicin is given for two days to the contacts for prevention
d) Healthy carrier are commonly seen
e) Presence of bacteria in the throat always means an active disease
115. Chemoprophylaxis is recommended by WHO in all of the following except:
a) Cholera
b) Plague
c) Measles
d) Meningococcal meningitis
e) Malaria
116. Which one of the following diseases has been eradicated?
a) Measles
b) Polio
c) Tuberculosis
d) Dracunculosis
e) Brucellosis
117. A person is exposed to an antigen for the first time, the type of antibody to appear first in his blood is:
a) $\lg A$
b) $\operatorname{lgD}$
c) $\operatorname{lgG}$
d) $\lg M$
e) $\lg E$
118. One of the important contraindications to vaccination against "Whooping cough" is:
a) History of convulsion
b) 3rd degree malnutrition
c) History of Pertussis in family
d) Mild Febrile illness
e) Liver diseases
119. Vaccines are either killed or live attenuated, which one of the following is a killed vaccine:
a) BCG
b) Measles vaccine
c) Oral polio vaccine
d) Salk polio vaccine
e) Rubella
120. Herd immunity is commonly seen in one of the following diseases:
a) Poliomyelitis
b) Leprosy
c) Malaria
d) HIV
e) Cholera
121. Immunization is
a) Health promotion
b) Specific Protection
c) Early detection
d) Rehabilitation
e) Prompt Treatment
122. Which of the following statements is true about Passive Immunization?
a) It is immediately effective
b) It is less likely to cause allergic reactions as compared to active immunization
c) Provides longer protection as compared to active immunization
d) Should be provided to all sick children.
e) It is always non specific
123. Regarding Measles Vaccination which one is correct?
a) Measles Vaccine should be given to all the persons of a community regardless of ag
b) The best time of measles vaccination is first month of lif
c) For primary Measles Vaccination, at least two doses should be given, one month apart to ensure full antibody response
d) It is better to delay the vaccination till 9-15 months of ag
e) To protect against a second attack of measles, vaccine should be offered even to those persons who have had an attack of Measles previously.
124. Normal human immunoglobulin is given in one of the following conditions as specific immunoglobulins are not available:
a) Hepatitis A
b) Hepatitis B
c) Chicken Pox
d) Diphtheria
e) Tetanus

Key: True: a
34. Which of the following statements is true about Hepatitis $B$ vaccine?
a) It is a live attenuated vaccine
b) It is a recombinant DNA vaccine
c) It is a freeze dried vaccine
d) This Vaccine and Immunoglobulin cannot be given together
e) This Vaccine has to be repeated every year

Key: True: b
35. Protective value of BCG vaccination is:
a) Less than $40 \%$
b) $50 \%$
c) $60 \%$
d) $80 \%$
e) Less than $90 \%$

Key: True: a
36. Which one of the following is a live attenuated vaccine?
a) Sabin vaccine
b) Salk vaccine
c) Cholera
d) Pertussis
e) Diphtheria Toxoid

Key: True: a
37. Which of the following group of Lymphocytes recognizes antigens and results in the development of a humoral immune response
a) Killer (K) cells
b) Tlymphocytes
c) Null cells
d) B lymphocytes
e) Suppressor T (Ts) cells

Key: True: d
38. Erythroblastosis fetalis can be prevented in the next baby, if the mother is injected, at parturition, with an antibody called:
a) Nonspecific immunoglobulin
b) Rho (immunoglobulin (Rho GAM)
c) Antilymphocyte globulin
d) Antithymocyte serum
e) Univalent antiserum

Key: True: b
39. One of the serious complications associated with the use of immunosuppressive agents is:
a) Increased incidence of autoimmune disease
b) Increased susceptibility to opportunistic infections
c) Loss of tuberculin sensitivity in tuberculosis patients
d) Loss of hair
e) Decrease in complement levels

Key: True: b
40. The preferred vaccine for diphtheria consists of
a) Heat-killed corynebacterium diphtheriae
b) Attenuated corynebacterium diphtheriae
c) Precipitated or adsorbed toxoid
d) Capsular polysaccharide
e) Capsule plus carrier protein

Key: True: c
41. The snake bite of family viperidae is commonly identified by one of the following effect:
a) Myotoxic
b) Neurotoxic
c) Hemotoxic
d) Hepatotoxic
e) Nephrotoxic

Key: True: c
42. Which of the following statements about polyvalent anti-snake venom serum is true?
a) It is to be given subcutaneously
b) It is an example of passive immunization
c) It is usually obtained from human donors
d) It should be stored at $0^{\circ}$
e) It gives lifelong immunity

Key: True: b
43. Which one of the following statements is true regarding krait envenomation?
a) Violent abdominal pains due to internal hemorrhages
b) Staggering gait
c) Creeping paralysis beginning in legs
d) In coordination of speech
e) Drooping of head

Key: True: a
44. Which one of the following is the zoological name of cobra?
a) Naja naja
b) Bungarus caeruleus
c) Echis carinatus
d) Vipera russelli
e) Rana tigrena

Key: True: a
45. Which one of the following statement is true for Russell Viper envenomation?
a) Neurotoxic and swift acting
b) Primarily neurotoxic causes slight swelling
c) After some time a dark discoloration occurs at the site of bite
d) Difficult breathing
e) Hyper salivation

Key: True: c
46. In cobra envenomation, death occurs due to which one of the following reasons?
a) Respiratory failure
b) Stroke
c) Internal hemorrhages
d) Nephrotoxicity
e) Cardiac failure

Key: True: a
47. All of the following are the constituents of snake venom except:
a) Hyaluronidase
b) Phospholipase A2
c) Transaminase
d) Endonuclease
e) Lipase

Key: True: e
48. Which of the following is not true for snake bite in Pakistan?
a) Most death occur due to rattle snake
b) Snake bite is more common in summer
c) Management of snake bite requires anti snake venom
d) Cobra bites are characterized by neurological signs
e) Snakes are mostly oviparous

Key: True: a
49. All of the following are the protozoal infections except:
a) Leishmaniasis
b) Toxoplasmosis
c) Trypanosomniasis
d) Lassa fever
e) Giardiasis

Key: True: d
50. Which one of the following is true regarding Giardiasis?
a) The infection commonly affects children who are admitted in a day care centre
b) Infection is generally in-apparent in the children, but always symptomatic in adults
c) It leads to gestational infection in a new borne
d) It is the commonest nosocomial infection
e) None of the above

Key: True: a
51. The intermediate host involved in transmission of Diphyllobothriasis
a) Snail
b) Swine
c) Fish
d) Crab
e) $\operatorname{Dog}$

Key: True: c
52. The intermediate host involved in transmission of Cysticercosis
a) Snail
b) Swine
c) Fish
d) Crab
e) Dog

Key: True: b
53. The most important method of prevention of Dracunculus medinensis (Guinea Worm) infection is by:
a) Washing the hands with soap before eating.
b) Proper sewage disposal.
c) Mass vaccination.
d) Purification of water
e) Eating the properly cooked meat.

Key: True: d
54. Which of the following is true about round worm?
a) It can suck up to 1 cc of blood per day.
b) It belongs to the group of trematodes.
c) The infection takes place by ingestion of eggs of the worm.
d) Only female worm exists in human gut.
e) It is very common in villagers because they walk barefoote

Key: True: c
55. About Oriental Sore which one of the following is correct?
a) It is caused by Leishmania donovani.
b) The diagnosis is made by taking a smear from the base of ulcer.
c) The disease spreads by bathing in dirty water.
d) Human beings are the only reservoir.
e) Food should be protected from flies to prevent the epidemic of the diseas

Key: True: b
56. Koplik's spots are the diagnostic sign of one of the following diseases:
a) Rubella
b) Whooping cough
c) Measles
d) Meningitis
e) Mumps

Key: True: c
57. Which of the following diseases is included in expanded program on immunization?
a) Tuberculosis
b) Mumps
c) Chicken-pox
d) Rubella
e) Hepatitis A

Key: True: a
58. The best measure taken in meningococcal meningitis out-breaks is:
a) Mass chemo-prophylaxis by penicillin
b) Immunization
c) Chlorination of all water supplies
d) Closure of schools
e) Mass screening program

Key: True: b
59. Aedes Egypti mosquito is commonly a vector in the transmission of one of the following diseases:
a) Filariasis
b) Yellow Fever
c) Malaria
d) Plague
e) Leishmaniasis

Key: True: b
60. All the following diseases can be prevented by vaccination except:
a) Measles
b) Mumps
c) Malaria
d) Whooping cough
e) Tuberculosis.

Key: True: c
61. Which one of the following vectors transmits scrub typhus:
a) Louse
b) Flea
c) Mite
d) Ticks
e) Mosquito

Key: True: c
62. Regarding clinical spectrum of poliomyelitis, approximately one percent of all polio-infections are
a. Abortive polio
b. In apparent polio
c. Non-paralytic polio
d. Paralytic polio
e. Clinical Cases

Key: True: d
63. The main mode of transmission of Ancylostoma duodenale is:
a) Ingestion of larva
b) Ingestion of eggs
c) Inhalation
d) Percutaneous
e) Blood transfusion

Key: True: d
64. Which of the following statements about polyvalent anti-snake venom serum is true?
a) It is to be given subcutaneously
b) It is an example of passive immunization
c) It is usually obtained from human donors
d) It should be stored at $0^{\circ}$
e) It gives lifelong immunity

Key: True: b
65. 30 years old married woman was advised X-Ray abdomen. To prevent radiation hazard to the baby in this woman, the doctor should take history of:
a) Hypersensitivity to radiation
b) Menstrual cycle
c) Previous exposure to X-Ray
d) Previous abortions
e) Genetic history

Key: True: b

