

**CLASS TEST (I) FOR THIRD YEAR MBBS STUDENTS,
COMMUNITY MEDICINE, WAH MEDICAL COLLEGE, WAH CANTT**

Dated: 13-03-2008.

MCQ PAPER

Total Marks: 30

Time: 30 Minutes

Instructions: Attempt all the questions. All questions carry equal marks. Give one option only.

1. 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

2. 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
 - b. A younger age distribution
 - c. An inaccurate census of the population.
 - d. More stressful life style
 - e. Greater exposure to occupational hazards.

Key True: b

3. 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
 - b. Crude death rates
 - c. Maternal mortality rates
 - d. Standardized mortality rates
 - e. Life expectancy

Key: True: d

4. In an outbreak of cholera in a village of 2,000 population, 20 cases have occurred and 5 died. Case fatality rate is:
- a. 1%
 - b. .25%
 - c. 5%
 - d. 25%
 - e. .0025%

Key: True: d

5. 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 curve. The most likely disease is:
- Salmonellosis
 - Staphylococcal food poisoning
 - Measles
 - Typhoid
 - Hepatitis A

Key: True: c

Questions # 6-7.

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 rate.

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

6. 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

$$\frac{10 \text{ new cases}}{500 \text{ persons} \times 2 \text{ years}} = 10 \text{ cases}/1000 \text{ persons years}$$

7. 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

$$\frac{10 \text{ new cases}}{10,000 \text{ persons} \times 2 \text{ years}} = 0.5 \text{ cases}/1000 \text{ persons years}$$

8. 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

- Total No. of children=1000
- No. of immunized =600
- No. of un-immunized=400
- Primary case=1
- Secondary attack rate= $20/(400-1)=20/399 \times 100= 5\%$

9. 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, twenty- six children developed measles. The secondary attack rate of measles is:
- 25%
 - 40%
 - 50%
 - 65%
 - 66%

Key: True: e

- Total No. of children=100
- No. of immunized =60
- No. of un-immunized=40
- Primary case=1
- Secondary attack rate= $26/(40-1)=26/39 \times 100= 66\%$

10. 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 people. It's an example of
- Primordial
 - Primary
 - Secondary
 - Rehabilitation
 - screening

Key: True: a

11. The number of deaths due to diarrhea, 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:
- Mortality data
 - Morbidity data
 - Case fatality rate
 - Addiction rate
 - Health related data

Key: True: e

12. Japanese have a higher rate of stomach cancer and a low rate for colon carcinoma than the U.S. However third generation descendents of Japanese immigrants to U.S have rates of stomach & colon cancer like that of U.S. This particular characteristic supports effects of:
- Environment
 - Genetics
 - Mutation
 - Accidents
 - Misinterpretation

Key: True: a

13. 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

14. 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

15. The health statistics department revealed that the sale of anti-Asthma drugs was more in those countries where Asthma deaths were more. This association may prove wrong when the individual based study designs are conducted. This association is an example of:
- Ecological fallacy
 - Berkesonian bias
 - Indirect association
 - Temporal association
 - Specific association

Key: True: a

16. 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

17. 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?
- Incidence
 - Prevalence
 - Case fatality
 - Proportionate mortality
 - Cause specific mortality

Key: True: b

18. When the number of educated females is expressed as a percentage of total females present in a village. It is known as:
- Proportion
 - Rate
 - Ratio
 - Frequency
 - Cumulative frequency

Key: True: a

19. 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 reported. This type of time trend or fluctuation in disease occurrence is termed as:
- Epidemic trend
 - Cyclical trend
 - Seasonal trend
 - Secular trend
 - Pandemic trend

Key: True: d

20. 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:
- 10
 - 20
 - 30
 - 40
 - 50

Key: True: c

21. If the number of deaths from tuberculosis is expressed in relation to the total mid year population, it is:
- Case fatality rate
 - Age specific death rate
 - Proportionate mortality rate
 - Crude death rate
 - Cause specific death rate

Key: True: e

22. Bhopal gas tragedy is an example of:
- Slow epidemic
 - Continuous epidemic
 - Point source epidemic
 - Propagated epidemic
 - An accident which did not warrant an emergency

Key: True: c

23. 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

24. In a universe comprising of 1500 children less than 5 years of age, 75 children with severe malnutrition were found. 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

25. 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

26. A 40 years old man of 75 kg came to a physician for his routine checkup. His serum cholesterol was found to be 230 mg/dL and he was diagnosed as hypertensive. The risk factor of this particular condition is classified as:
- Physical
 - Chemical
 - Biological
 - Nutritive
 - Mechanical

Key: True: b

27. 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

28. A patient came in emergency with signs of dehydration and severe diarrhea. 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 positive. He did not give history of any event which could have lead to this disease. This hepatitis infection may be labeled as:
- Sub clinical
 - Idiopathic
 - Opportunistic
 - Cross infection
 - Iatrogenic

Key: True: e

29. 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

30. 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

Key: True: e