

Q1. Circle the most correct answer: (25 marks)

1. **The major reason(s) for the increase in longevity globally has been:**
 - a) Increasing provision of clean water.
 - b) Adoption of more healthy lifestyles.
 - c) Improved sanitation.
 - d) a. and c. above.

2. **The probability of transmission of an infectious agent is associated with:**
 - a) The environment
 - b) Social factors
 - c) Genetic and biologic factors.
 - d) All of the above.

3. **Influenza incidence peaks in:**
 - a) January-February
 - b) April-May
 - c) June-July
 - d) September-October

4. **Non-communicable diseases usually are:**
 - a) Of short duration.
 - b) Not infectious.
 - c) Slowly progressive
 - d) B and c.

5. **Globally, which form of cancer has the highest mortality in males?**
 - a) Pancreatic
 - b) Colorectal.
 - c) Prostate.
 - d) Lung.

6. **Neural tube defects in the infant/fetus may result from inadequate maternal of:**
 - a) Vitamin A
 - b) Folic acid.
 - c) Magnesium.
 - d) Vitamin D.

7. **Which of the following diseases has been eradicated?**
 - a) Smallpox.
 - b) Polio.
 - c) Measles.
 - d) a. and b. above.

8. **The major factor leading to a decline in the incidence of tuberculosis is *Ps* was:**
 - a) Development of effective antibiotic treatment
 - b) Better housing and reduced crowding
 - c) Development of penicillin
 - d) Development of refrigeration for foods

9. The goal(s) of a vaccine is/are to:
- Prevent infection.
 - Prevent complications.
 - Treat clinical cases.
 - None of the above.
10. The Cancer and Steroid Hormone (CASH) study, in which women with breast cancer and a comparable group of women without breast cancer were asked about their prior use of oral contraceptives is an example of which type(s) of study?
- Experimental study.
 - Case-control study.
 - Cohort study.
 - Cross sectional survey.
11. A pharmaceutical company showed the following in an article: "1500 subjects with a cold were treated with our new medicine. Within three days, 95% were asymptomatic and this result was statistically significant." The company claims the new medicine was effective. Is this conclusion justified?
- Yes, because the effect was very large (95% of the subjects benefitted from treatment).
 - No, because statistical significance indicates that the null hypothesis ("no effect") was correct.
 - No, because no control group was involved in the study.
 - Yes, because the effect of treatment could not be explained by chance.
12. To be causally associated with disease, the etiological factor should fulfill the following criteria EXCEPT:
- The factor is present in all subjects with the disease.
 - Elimination of the factor reduces risk of the disease.
 - The exposure to this factor should precede the development of the disease.
 - The factor is more prevalent among those with the disease than among those without the disease.
13. When the health indicator measure what it is supposed to measure it called:
- Reliability.
 - Sensitivity.
 - Validity.
 - None of the above.
14. Which program is an example of secondary prevention?
- A community-wide nutrition program at fast-food establishments.
 - A program to immunize persons exposed to infectious disease with immunoglobulin G within two weeks of exposure.
 - Alcoholics Anonymous.
 - An exercise program for persons who have had a stroke.
15. In a population of 10,000,000 people, at a given time 500 individuals have motor neurone disease. What is the point prevalence of motor neurone disease in this population at this given time?
- 0.05 per 100,000.

- b) 0.5 per 100,000.
- c) 5 per 100,000.
- d) 50 per 100,000.

16. Which one of the following diseases is a communicable?

- a) Rickets.
- b) Amoebiasis.
- c) Diabetes.
- d) Cancer.

17. Disease existing at or before birth is:

- a) Congenital.
- b) Communicable.
- c) Noncommunicable.
- d) none of these.

18. A bacterial disease is:

- a) Leprosy.
- b) Polio.
- c) Chicken pox.
- d) Influenza.

19. A state of complete physical mental and social well-being is called:

- a) Disease.
- b) Health.
- c) Hygiene.
- d) Infirmity.

20. Study of mode of transmission of diseases is called:

- a) Parasitology.
- b) Epidemiology.
- c) Nosology.
- d) Immunology.

21. A person preparing food (e.g., Mary Milton) can be a major source of disease:

- a) Pneumonia.
- b) Syphilis.
- c) Typhoid.
- d) Cancer.

22. Which of the following confer(s) passive immunity:

- a) Hepatitis B vaccine.
- b) Cross placental transfer of maternal antibodies.
- c) Infection with measles virus.
- d) Hepatitis B immunoglobulin.

23. Maintaining the cold chain ensures that vaccines are stored according to the manufacturer's instructions at:
- 0° to $+4^{\circ}\text{C}$.
 - -1° to $+5^{\circ}\text{C}$.
 - $+4^{\circ}$ to $+8^{\circ}\text{C}$.
 - $+2^{\circ}$ to $+8^{\circ}\text{C}$.
24. Vaccination with a live vaccine should be deferred if:
- The patient is receiving systemic high-dose steroids.
 - The patient is a premature infant.
 - The patient has a febrile illness.
 - The patient has a family history of epilepsy.
25. In addition to being up to date with the routine immunizations, which of the following should be considered for healthcare staff involved in direct patient contact:
- BCG.
 - Hepatitis B.
 - Influenza.
 - Hepatitis A.
26. Fluoridation of water would be an example of:
- A primary prevention strategy.
 - A secondary prevention strategy.
 - A tertiary prevention strategy.
 - It is not a prevention strategy.
27. The resistance of a population to an attack by a disease to which a large proportion of the members of the group are immune is referred to as...
- Group resistance.
 - Population immunogenesis.
 - Herd immunity.
 - The Panum Effect.
28. A person with a severe cold sneezes into a bath towel. Later, a family member takes a shower and dries himself with the same bath towel. As he dries his face, this individual becomes infected with the cold virus and develops a cold himself. This is an example of:
- Direct contact transmission.
 - Indirect contact transmission.
 - Airborne transmission.
 - Vector transmission.
29. A cohort study differs from a case-control study in that:
- Subjects are enrolled or categorized on the basis of their exposure status in a cohort study but not in a case-control study.
 - Subjects are asked about their exposure status in a cohort study but not in a case-control study.
 - Cohort studies require many years to conduct, but case-control studies do not.

- d) Cohort studies are conducted to investigate chronic diseases, case-control studies are used for infectious diseases.
30. The epidemiologic triad of disease causation refers to: (Choose one best answer)
- Agent, host, environment.
 - Time, place, person.
 - Source, mode of transmission, susceptible host.
 - John Snow, Robert Koch, Kenneth Rothman.
31. All of the following are considered from the disadvantages of cohort EXCEPT:
- It takes long time to complete study.
 - Cohort studies are not expensive.
 - Has more ethical problems.
 - Persons may lose interest and will not come for follow-up.
32. _____ carries the same definition of epidemic, but is often used for a limited geographic area.
- Pandemic.
 - Sporadic.
 - Outbreak.
 - Endemic.
33. Action is taken AFTER the disease has occurred to prevent complication further injury is called:
- Primordial prevention.
 - Primary prevention.
 - Secondary prevention.
 - Tertiary prevention.
34. Disease elimination means all of the following EXCEPT:
- Disease is not present in some countries.
 - But disease is present in other countries.
 - Immunization must be done to prevent disease.
 - Rubella was eliminated from Palestine.
35. Which of the following is correct regarding disease eradication:
- The disease is not present anywhere in the world.
 - The agent is also present in certain countries in the world.
 - So there is a need to immunize against it.
 - Polio was eradicated from Palestine.
36. All of the following is conceded from the Principles of Health education EXCEPT:
- Disinterest.
 - Participation.
 - Reinforcement.
 - Motivation.

37. All of the following are considered from visual aids EXCEPT:

- a) Posters.
- b) Slides.
- c) Black board.
- d) Radio.

38. All of the following are objectives of school health program EXCEPT:

- a) Health promotion of school children.
- b) Encourage risk-taking behaviors (as smoking).
- c) Prevention and control of health hazards.
- d) Rehabilitation of the handicapped.

39. The school child is the subject of special consideration for many reasons EXCEPT:

- a) This group is of vital importance to the health of the community.
- b) They constitute a none sizeable segment of the population.
- c) School children are subject to the risks and dangers of communicable diseases.
- d) They undergo the stresses and strains of growth and development.

40. All the following are examples of screening tests done in schools EXCEPT:

- a) Visual acuity.
- b) IQ testing.
- c) Dental examination.
- d) Treatment of TB.

41. In constructing the school buildings the windows must be on the----- side of the students.

- a) Right.
- b) Left.
- c) In front.
- d) Anywhere.

42. The distance between columns of desks in the class room will be:

- a) 6 cm.
- b) 60 cm.
- c) 0.6 cm.
- d) 600cm.

43. when constructing school building the rate of toilette to student will be:

- a) Toilette / 30 students.
- b) Toilette / 40 students.
- c) Toilette / 50 students.
- d) Toilette / 60 students.

44. Which of the following is NOT from the benefits of immunization?

- a) It is better to keep people from falling ill than to treat them once they are ill.
- b) Suffering, disability, and death are avoided.
- c) Strain on health-care systems is eased.
- d) Money is frequently not saved.

45. _____ includes most of vaccines given to public and specifically for children to improve their immune status including tetanus toxoid.
- Natural active.
 - Artificial active.
 - Natural passive.
 - Artificial passive.
46. Which of the following vaccines is considered from the live attenuated vaccine?
- Pertussis.
 - BCG.
 - Diphtheria.
 - Influenza.
47. Which of the following is NOT considered from the causes of inadequate immunization:
- Limited access.
 - Vaccination cost.
 - Patient disinterest.
 - Increasing literacy rate.
48. All of the following can damage the vaccines EXCEPT:
- Freezing.
 - Heat.
 - Sun light.
 - Keeping in $+2^{\circ}\text{C}$ to $+8^{\circ}\text{C}$.
49. All of the following are true of odds ratio except:
- It is the only measure of risk that can be obtained directly from a case-control study.
 - It tends to be biased towards 1 (neither risk or protection) at high rates of disease.
 - It is the ratio of incidence in exposed divided by incidence in non-exposed.
 - It can be calculated without data on rates (as in a case-control study).
50. In a well-designed clinical trial of treatment of ovarian cancer, remission rate after one year is similar for a new drug and usual care. The P-value is 0.4. This means that:
- Both treatments are effective.
 - Neither treatment is effective.
 - The statistical power of this study is 60%.
 - It is not possible to decide on whether one treatment is better than the other from this information alone.
- QII. QI- Put true (T) in front of the correct sentence and false (F) in front of the incorrect sentence. (15 Marks).**

- _____ Knowledge is not usually necessary to achieve behavior change.
- _____ Breast feeding provides maternal antibodies.
- _____ Improving worker health and safety can lead to decreased health care-related costs.
- _____ Infectious diseases impose a greater health burden than chronic diseases do.
- _____ Case control study sometimes called 'retrospective study'.

6. ----- From the advantages of case control study the high attrition (loss of patients) problems.
7. ----- Case control study also called incidence study.
8. ----- If relative risk is 10, that means there is no risk.
9. ----- Disease prevention can be achieved even by blocking just ONE risk factor!
10. ----- Epidemiological triad considers all predisposing factors or risk factors and their interaction.
11. ----- Endemic refers to a disease that occurs infrequently and irregularly.
12. ----- An increase in the mosquitoes may be responsible for an outbreak of Malaria.
13. ----- In Primary prevention we prevent emergence of risk factors.
14. ----- Risk factors like Smoking, Obesity, Sedentary life style etc. are prevented.
15. ----- Many health problems are due to the lack of knowledge regarding health among the people.
16. ----- Learning should be passive and not active.
17. ----- Children with minor or mild cases of disability can attend regular schools.
18. ----- Immunization is the most cost-effective public health intervention.
19. ----- Immunization is considered among the lowest cost-effective of health investments.
20. ----- Hepatitis A virus infections are known as the "silent epidemic".
21. ----- Vaccine potency can be regained once it is lost.
22. ----- Vaccines are very safe, and side effects are minor — especially when compared to the diseases they are designed to prevent.
23. ----- BCG is the only vaccine which should not be administered to children with clinically apparent AIDS or immune deficiency.
24. ----- An endemic is an occurrence of disease in excess of normal expectancy.
25. ----- Mortality is the proportion of people who live from a disease to the population of a geographic area for a period of time.
26. ----- School children are subject to the risks and dangers of communicable diseases.
27. ----- "Education is fundamental to health and health is vital for efficient education".
28. ----- Severe forms (e.g. the deaf, blind, or mentally retarded) can attend regular schools.
29. ----- Not all risk factors are necessary to cause disease.
30. ----- Primary prevention is action taken after the onset of disease.

QIII. Match the following terms in the column (A) with their meanings in the column (B) (5 Marks)

Column (A)	Column (B)
1. ----Active immunity	A. group of people are protected against infectious d
2. ----Clinical trials	B. It is the cycle of transportation of vaccines from factory to the child.
3. ---- Disease prevention	C. Involves the administration of a test regimen to to evaluate its efficacy and safety.
4. ----Disease eradication	D. The mode of transport of an infectious agent through environment to a susceptible host is called a:
5. ----Cold chain	E. Is the rate of disease or proportion of diseased people in a geographic area.
6. ----Cohort study	F. It is a suspension of live or killed microorganisms that induce immunity to specified disease.
7. ----Morbidity	G. The development of immunity from previous exposure to an agent before a vaccine or natural infection.
8. ---- Herd immunity	H. A longitudinal or prospective study is also referred as a(n)
9. ----Vehicle	I. Is action taken before the onset of disease.
10. ----Vaccine	J. The disease is not present anywhere in the world.

QIV. Answer the following question: (5 Marks)

A Cohort study was done to find the association of eating more fatty food and coronary heart disease. 1000 people whose diet contained more fatty food were selected to form the study cohort. 1000 people who ate balanced diet were selected as control cohort. They were followed up for 10 years. 60 people from the study cohort developed coronary heart disease and 4 people from the control group developed coronary heart disease. Draw a 2x2 table and calculate the following:

- A. Incidence rate of Coronary heart disease among the study cohort.
- B. Incidence rate of Coronary heart disease among the control cohort.
- C. Relative risk and give your comment.

Good luck for all

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