

Professional M.B.B.S. Part-I (Supp) Exam. (New Scheme)

May-2025

Community Medicine

Paper-1

Time: Three Hours

Maximum Marks: 100

Attempt all questions in both sections.

Section-A

1. Q.1 Fill in the blanks (05 marks)

- a. Sensitivity of a screening test is its ability to detect _____.
 - b. Screening for visual impairment in school children is an example of _____ level of prevention.
 - c. The relative risk of 1 is interpreted as _____ association.
 - d. The National Health Program that screens for 4 Ds (defects at birth, deficiencies, diseases and developmental delay) in children is _____.
-

e. The denominator in calculation of still birth rate is _____.

2. Q.2 Multiple choice questions (05 marks)

a. An image, perception or concept that is capable of measurement is called

- i. Scale
- ii. Hypothesis
- iii. Type
- iv. Variable

b. The degree of freedom for paired t-test based on 'n' pairs of observations is:

- i. $2n-1$
- ii. $N-2$
- iii. $2(n-1)$
- iv. $N-1$

c. The growth rate of a country is called explosive when the annual growth rate in percentage is:

- i. 0.5-1
- ii. 1-1.5
- iii. 1.5-2.0
- iv. 2.0-2.5

d. In the NP NCD program which of the following disease is not included:

- i. Chronic Obstructive Pulmonary Disease (COPD) and Asthma

- ii. Chronic Kidney Disease (CKD)
 - iii. Non-Alcoholic Fatty Liver Disease (NAFLD)
 - iv. Substance Use Disorders (SUD)
- e. fIPV under the NIS is given at:
- i. 6,10,14 weeks
 - ii. Birth, 6,10 weeks
 - iii. 6,10, 9 months
 - iv. 6,14, 9 months
3. **Q.3** A new non-invasive screening tool has been introduced for checking blood sugar in the community. The tool gave the following results: (15 marks)

| | Diabetic | Non diabetic |
|---------------|-----------------|---------------------|
| Test positive | 60 | 40 |
| Test negative | 20 | 80 |

Calculate:

- a. Sensitivity
- b. Specificity
- c. Positive Predictive Value
- d. Negative Predictive Value
- e. Likelihood ratio of the positive test
- f. Likelihood ratio of the negative test.

Comment on the usefulness of each parameter.

What effect does the prevalence of a disease have on each of these parameters?

4. **Q.4** Write briefly on (any five): (10 marks)
 - a. Rule of halves in hypertension
 - b. Types of probability sampling
 - c. Bradford Hill criteria of association and causation
 - d. Open vial policy
 - e. Kangaroo mother care
 - f. National Program for the Health Care of the Elderly
5. **Q.5** Explain why (any three): (15 marks)
 - a. The need for standardisation for comparing rates of vital events across nations.
 - b. Ecological study design suffers from ecological fallacy.
 - c. Demographic cycle term is a misnomer. Explain.
 - d. Need for 90-90-90 strategy in HIV/AIDS.

Section-B

1. **Q.6** Define family planning. Classify the various methods of contraception. Discuss the advantages and disadvantages of each briefly with their failure rates. (20 marks)
2. **Q.7** Write briefly about (any five): (10 marks)
 - a. Digital health initiatives
 - b. Baby friendly hospital initiative
 - c. Conditions a disease must fulfill before it can be put under a screening program.
 - d. Confounding
 - e. Measures of association in epidemiological studies
 - f. Syndrome approach
3. **Q.8** Write Short Notes on (Any Four): (20 marks)
 - a. EmONC (Emergency obstetric and newborn Care)
 - b. Pearl's index
 - c. Child health problems
 - d. Cohort study design
 - e. Alpha and beta errors

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