Important instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

1. Describe steps involved in conduct of case-control study. What are the advantages of this design? 6+4
2. Define bias. Enumerate types of biases. Explain Neyman fallacy with an example. 3+4+3
3. Describe the criteria for assessment of causation. 10
4. What is sensitivity and specificity of diagnostic test? What is the predictive accuracy of a diagnostic test? Explain with examples. 6+4
5. Discuss various methods to estimate burden of disease in a community. 10
6. Describe epidemiological models and their relevance in current public health context. 10
7. Describe challenges in conduct of cohort studies. 10
8. Describe conduct of cluster randomized community trials. 10
9. What is environmental epidemiology? Describe its role in climate change assessment studies. 5+5
10. Enumerate and describe steps involved in conduct of meta-analysis. 10

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