



The West Bengal University of Health Sciences
M.Sc. in Medical Microbiology Part-I November, 2023 Examination

Subject : Research Methodology and Environmental Sciences

Time : 3 hrs.

Full Marks : 100

Attempt all questions

- 1) Give a brief outline of the steps of case control study. Mention four important limitations of case control study. 6+4
- 2) What is a problem village? What are the microbiological indicators for surveillance of drinking water quality? 4+6
- 3) What is a 'Research Hypothesis'? Explain the concept of 'null hypothesis'? 4+6
- 4) What is indoor air pollution? Mention its sources and effects. What measures can be undertaken to reduce indoor air pollution in an urban slum area? 2+3+5
- 5) What is a data collection tool? Mention the difference between a questionnaire and a schedule for data collection. How can a data collection tool be validated? 2+1+7
- 6) What is meant by biomedical waste? What are the sources of biomedical wastes generated in a hospital? How are biomedical wastes categorized and disposed in a hospital? 2+3+2+3
- 7) Differentiate between qualitative and quantitative research. What is meant by data triangulation? Explain with an example. 4+2+4
- 8) Define disaster and hazard. What are the different types of disaster? An earthquake had occurred in a hilly district of West Bengal. What measures are to be taken for disaster response, preparedness and mitigation in relation to the earthquake in the district? 4+2+4
- 9) What is the relationship between incidence and prevalence? Explain cumulative incidence and incidence density with example. 4+6
- 10) What are the health impacts due to climate change? Mention the measures to be taken to prevent emerging and re-emerging infectious diseases as a result of climate change. 4+6