

015/26

The West Bengal University of Health Sciences
MBBS 3rd Professional Part-I Examination (New Regulation),
August- September 2026

Subject: Community Medicine
Paper: I

Full Marks: 100
Time: 3 hours

Attempt all questions and answer in **sequential** order. The figures in the margin indicate full marks.

1. a) A 28 year old woman has come to the primary health centre with complains of cough for 3 weeks associated with blood tinged sputum and low grade temperature. On subsequent investigations, she is diagnosed to have drug sensitive pulmonary tuberculosis. Her weight is found to be 42 kg. She lives in a nuclear family with her husband and a 4 years old child. 4+4+3+2+2

- i. Discuss the diagnostic algorithm for pulmonary tuberculosis under National Program.
- ii. Write down the treatment regimen for the woman according to National guidelines including pre-treatment counselling and evaluation.
- iii. How the follow up of the treatment will be done?
- iv. Mention the doses and duration of chemoprophylaxis for the child.
- v. What advice should be given on sputum disposal?

b) A district reports a measles outbreak affecting 85 children. Administrative reports indicate measles vaccination coverage of 96% over the last 5 years. Local health authorities are concerned because such an outbreak would not normally be expected at this level of coverage. (2+2)+3+6+2

- i. Define Herd Immunity. Why is a high level of Herd Immunity important for control of Measles?
- ii. Write down the reasons for measles outbreak in spite of high vaccination coverage.
- iii. Describe the steps of investigation of outbreak.
- iv. Recommend the immediate control measures.

2. Write on the following:

- a) During a busy indoor activity, an intern got a prick on his left index finger while recapping the needle after drawing blood. He was panicked as the patient was seropositive. What will be the immediate measures in this condition? What is the safe injection practice? Mention the name of body fluids considered 'not at risk'. 6+3+1
- b) Define Disaster. Enumerate the short-term and long-term health impacts of a natural disaster like flood. Briefly describe the role of a doctor during a disaster. 2+4+4
- c) Name important chemicals of health significance present in ground water of West Bengal. Describe in brief the control measures and health effects of any one of them. 2+4+ 4

3. Write short notes on the following:

2 x 5

- a) HPV vaccination in Adolescents.
- b) Steps of breaking the bad news in healthcare setting.

4. Explain the following statements:

5 x 4

- a) One Health Approach is important for control of emerging zoonotic diseases.
- b) The census is an important source of health information of a country.

- c) Use of color coded bags must be ensured at the point of generation of biomedical waste management and not at the point of disposal.
- d) Intradermal administration of anti-rabies vaccine has more advantages than given by intramuscular route.
- e) Statistical association does not necessarily mean causal association.

5. Choose the correct option for each of the following:

10x1

- i) Method of transmission of microfilaria through a female Culex mosquito is:
 a) Cyclo-propagative b) Propagative c) Cyclo-developmental d) Trans ovarian
- ii) One standard deviation on either side of mean covers approximately:
 a) 50% b) 68% c) 95% d) 99.7%
- iii) According to Haddon's Matrix, wearing a seat belt while driving is an example of intervention during:
 a) Pre-event phase b) Event phase c) Post-event phase d) Rehabilitation phase
- iv) Laboratory cultures should be segregated at which bag?
 a) Black b) Blue c) Red d) Yellow
- v) Cyclic trend is seen in:
 a) Chicken pox b) Diphtheria c) Mumps d) Measles
- vi) Which of the following is not a cause of bias?
 a) Confounding b) Selection c) Misclassification d) Random error
- vii) A 52 year old diabetic man undergoes screening for diabetic retinopathy. The ophthalmologist states that the test has very high sensitivity. What is the main implication of a highly sensitive test?
 a) Few false-positive results b) Few false-negative results
 c) High specificity d) High predictive value
- viii) The first international sanitary conference was held in:
 a) Paris b) London c) Geneva d) New York
- ix) A 4 month old child presents with cough for 2 days. On examination, there are no danger signs, stridor or wheeze. The respiratory rate is 50/minute. He is classified as:
 a) Pneumonia b) Cough and cold
 c) Severe Pneumonia d) Possible serious bacterial infection
- x) Open vial policy is applicable to the following vaccine:
 a) Measles Rubella b) BCG c) Rota virus d) Japanese encephalitis