

**MBBS 2<sup>nd</sup> Professional Examination, 2013****Microbiology****Paper I**

Time Allowed : 2 Hours

Full Marks : 40

**Use Separate answer script for each group***Attempt all questions. The figures in the margin indicate distribution of marks in each question.***Group – A**

1. a) A middle aged person is suffering from lowgrade fever for 2 months along with cough and occasional haemoptysis and gradual weight loss. Acid fast bacilli found on sputum smear examination. What is your probable diagnosis? Name the etiological agent. Briefly discuss the procedures adopted in the laboratory for the identification and isolation of AFB from the sputum sample. How the immune status of such a patient can be assessed? 1+2+4+3

or

- b) Two friends went to a Chinese restaurant. They had soup followed by fried rice and chilly chicken. After 2 hours they started vomiting followed by diarrhea. They also developed fever. On examination, the blood pressure was found to be low. What is your diagnosis? What is the mechanism behind this manifestation? How can you diagnose the case in the laboratory. 1+4+5

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) Enrichment media
  - b) Halophilic Vibrio
  - c) IgE
  - d) Primary immune response

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Microbiological wastes should be segregated before disposal
  - b) Phages are important tools for gene transfer in bacteria.
  - c) Isolation of *C. diphtheriae* from clinical sample does not confirm diphtheria.
  - d) VDRL positivity does not necessarily mean *Treponema pallidum* infection.

**Group – D**

4. Differentiate between : 3 x 2
- a) T lymphocytes and B lymphocytes
  - b) Immunofluorescence and ELISA
  - c) Dry heat and moist heat sterilization