

**MICROBIOLOGY****2011****First Paper****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) An adult is suffering from continuous fever for five days is brought to the hospital. On physical examination he had coated tongue, mild splenomegaly and relative bradycardia.  
What is your provisional diagnosis? Name the causative bacteria. How will you establish the laboratory diagnosis?  
Name the vaccines used for prevention of this disease. 1+2+5+2
- or
- b) A baby of four weeks is admitted to the hospital with fever, drowsiness, irritability, photophobia, vomiting. On examination, he was found to have neck rigidity. On lumbar puncture, CSF was found turbid.  
What is your clinical diagnosis? Name the bacteria responsible for such illness. How will you establish the diagnosis in the laboratory? 1+3+6

**Group - B**

2. Write short notes on ( **any three** ) : 3 x 4
- a) Bacteria capsule.
  - b) IgM
  - c) Non-gonococcal urethritis.
  - d) Plasmid

**Group - C**

3. Comment on ( **any three** ) : 3 x 4
- a) Gas gangrene is polymicrobial in nature.
  - b) Only the presence of *C. diphtheria* in the throat does not suggest the person is suffering from diphtheria
  - c) Unrelated antigen may be used as diagnostic test
  - d) IgE immunoglobulin mediates type I hypersensitivity

**Group – D**

4. Differentiate between : 3 x 2
- a) Flagella and Fimbria
  - b) Agglutination and Precipitation
  - c) Classical and El tor biotypes of *V. cholerae*