

YA-102

D/ME-02012142

**Second Year M.B.B.S. Examination
January-2015**

**Microbiology : Paper – I
(General Microbiology + Immunology + Systemic Bacteriology)**

**Faculty Code : D/ME
Subject Code : 02012142**

Time : 3 Hours]

[Total Marks : 40

- Instructions :** (1) Figure on right side indicate Full Marks of the Question.
(2) Draw Neat and Clean Diagram wherever it is necessary.
(3) Write down Each Section in a separate answer sheet.

SECTION – I

1. An Eight year old girl presented to the Emergency Department with High grade fever on the previous day. She complained of headache, was disoriented and had projectile vomiting.
- On examination, the neck was found to be rigid and Kernig's sign was positive.
 - A lumbar puncture was carried out along with complete blood counts and serum biochemistry.
 - Cytology showed polymorphs at $1000/\text{mm}^3$, protein 250 mg/dL and glucose 20 mg/dL.
 - Blood glucose levels were normal.

Answer the followings :

- (a) What is the most probable diagnosis of this clinical condition ? (1)
(b) Enumerates the list of bacteria that also cause this type of clinical condition. (2)
(c) What is Waterhouse – Friderichsen Syndrome ? (1)
(d) Give complete Laboratory diagnosis of this clinical condition. (5)
(e) What advised for the patients siblings ? (1)

2. Write short notes on any **two** : **10**
- (a) Moist Heat Sterilization.
 - (b) Genetic Mechanisms of Drug Resistance in Bacteria.
 - (c) ELISA Test.

SECTION – II

3. Write short notes on any **two** : **10**
- (a) Type I Hypersensitivity Reaction.
 - (b) Monoclonal Antibodies.
 - (c) Anaerobic Culture Methods.
4. Write answers in 2 – 3 sentences on any **five** : **10**
- (a) Give four differences between Gram Positive and Gram Negative bacterial cell wall.
 - (b) Draw and label of IgG molecule.
 - (c) What is ‘Super antigen’ ? Give its two examples.
 - (d) Give four differences between Classical cholera and Eltor vibrios.
 - (e) What is L form of bacteria ? Give its examples.
 - (f) What is food poisoning ? Give four examples of bacteria that cause food poisoning.
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