

Seat No. : _____

AD-107

April-2016

B.Sc., Sem.-VI

CC-309 : Microbiology

(Medical Microbiology)

Time : 3 Hours]

[Max. Marks : 70

- Instructions :** (1) Figures at right indicate marks.
(2) Draw diagrams wherever necessary.

1. Answer any **two** : **14**
- (a) Explain factors affecting process of infection.
 - (b) What is invasiveness ? Explain role of bacterial secretions in invasiveness.
 - (c) Enlist major differences of Bacterial Protein toxins and LPS toxins; Discuss properties and mode of action of LPS toxins.
 - (d) Write short note on : Phagocytosis as mode of non-specific defense mechanism.
2. Answer any **two** : **14**
- (a) Explain normal micro biota of Gastro intestinal tract of Human.
 - (b) Explain Gnotobiotic life and its role in the study of normal flora.
 - (c) Write a note on : Epidemiological markers.
 - (d) What is an epidemic ? Explain infectious disease cycle in brief.
3. Explain any **two** : **14**
- (a) What are the ways of transmission of airborne infections ? Write a note on Tuberculosis.
 - (b) Write a note on : Hepatitis.
 - (c) Explain syphilis as a contagious disease.
 - (d) What are Zoonoses ? Explain Rabies in brief.

4. Explain any **two** : **14**
- (a) Method of blood collection, storage and transport.
 - (b) Role of microscopy in diagnosis and identification of pathogen.
 - (c) Role of pathological changes in blood and other body fluids used for diagnosis and identification of pathogen.
 - (d) Write a note on : significance of computers in clinical Microbiology.
5. Answer in **one** or **two** lines. **14**
- (1) How pathogenic bacteria attach to their host cell ?
 - (2) Name chemicals contributing to the non-specific host defense against viruses.
 - (3) Name two protein toxins of bacteria.
 - (4) What do you mean by siderophores ?
 - (5) What is Pandemic ? Give example.
 - (6) Name two bacterial species found as normal flora of skin.
 - (7) List two significant roles of normal micro biota of human.
 - (8) What are nosocomial infections ?
 - (9) Give name of vector responsible for transmission of yellow fever.
 - (10) Name two viral infections of human.
 - (11) Name causative agent of malaria.
 - (12) What are bio sensors ?
 - (13) Mention confirmative biochemical reactions of *Escherichia coli*.
 - (14) Enlist types of specimens generally clinical microbiologist has to handle.
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