

Seat No. : _____

AE-112

April-2015

B.Sc., Sem.-VI

**MI-309 : Microbiology
(Medical Microbiology)**

Time : 3 Hours]

[Max. Marks : 70

Instructions : (1) All questions carry equal marks.
(2) Figures at right indicate marks.

1. Answer any **two** : **14**
- (a) Explain factors affecting process of infection.
 - (b) What is invasiveness ? Explain role of bacterial secretions in invasiveness.
 - (c) Give a brief account of : Bacterial Protein toxins, their properties and mode of action.
 - (d) Write short note on : Physical and mechanical defense as first line of defense mechanism.
2. Answer any **two** : **14**
- (a) Explain normal microbiota of respiratory tract of Human.
 - (b) Explain Gnotobiotic life and its role in the study of normal flora.
 - (c) Write a note on : Epidemiological types of infections.
 - (d) What are nosocomial infections ? Explain its epidemiological significance.
3. Explain any **two** : **14**
- (a) What are the ways of transmission of airborne infections ? Write a brief note on Influenza.
 - (b) Write a note on : typhoid fever.
 - (c) Explain AIDS and its social impact.
 - (d) Write a note on : malaria management.

4. Explain any **two** : **14**
- (a) Method of clinical specimen collection, storage and transport.
 - (b) Role of growth and biochemical characteristics in diagnosis and identification of pathogen.
 - (c) Pathological changes in blood and other body fluids used for diagnosis and identification of pathogen.
 - (d) Write a note on : Biosensors in diagnosis and identification of pathogen.

5. Answer in **one** or **two** lines : **14**
- (a) How viruses attach to their host cell ?
 - (b) Name two chemicals contributing to the non specific host defense.
 - (c) Name two physical mechanisms acting as a first line of host defense.
 - (d) What do you mean by septicemia ?
 - (e) Mention human body parts which are generally free from microbial flora.
 - (f) Name two bacterial species found in the oral cavity.
 - (g) List two significant roles of normal microbiota of human.
 - (h) What are epidemiological markers ?
 - (i) Give name of vector responsible for transmission of plague.
 - (j) What is the difference between food infection and food poisoning ?
 - (k) Give two examples of contagious diseases of human.
 - (l) Which diseases are diagnosed by ELISA ?
 - (m) Mention confirmative biochemical reactions of *Proteus vulgaris*.
 - (n) What are “Negribodies” ?
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