Seat No. : _____

SK-124

September-2020

B.Sc., Sem.-VI

CC-309 : Microbiology
(Medical Microbiology)
(New Course)

Time : 2 Hours] **[Max. Marks : 50**

Instructions : (1) Answer any **three (3)** questions out of **8 (eight)** questions.

(2) Question No. **9** is compulsory.

(3) Students should write the answers from the question paper as applicable to them, either **"OLD COURSE"** OR **"NEW COURSE"** and it must be mentioned at the beginning of answer paper.

(4) Illustrate your answers with neat diagrams wherever necessary.

1. Discuss host - parasite relationship and factors affecting it. **14**

2. (A) Explain gnotobiotic life and its role in the study of normal flora. **7**

   (B) Describe virulence as a degree of pathogenicity. **7**

3. Explain concept of immunoprophylaxis and describe types of vaccines in detail. **14**

4. (A) Write a note on epidemiological markers. **7**

   (B) Describe techniques used to study epidemiology. **7**

5. Describe various types of specimen, their collection and transportation in detail. **14**

6. (A) How pathological changes in blood, body fluids and tissues help in disease diagnosis ? **7**

   (B) How microscopy is used in pathogen identification and disease diagnosis ? **7**

7. Explain etiological agent, symptoms, transmission, diagnosis and control of malaria. **14**

8. (A) Describe transmission and symptoms of tuberculosis. **7**

   (B) Write a note on anthrax. **7**

9. Give short and specific answers in **1-2** lines only : (any **eight**) **8**

   (I) Name two chemicals contributing to the non specific host defence.

   (II) Give two examples of normal flora of eyes.

   (III) Define invesiveness.

   (IV) Mention human body parts which are free from microbial flora.

   (V) Give two hazards of vaccination.

   (VI) Define nosocomial infection.

   (VII) Define epidemiology.

   (VIII) Give two examples of air borne diseases.

   (IX) Give one application of biosensor in clinical medicine.

   (X) Name three types of catheters in clinical laboratory.

   (XI) Mention confirmative biochemical reactions of *Proteus valgaris*.

   (XII) Enlist types of specimens generally clinical microbiologist has to handle.

   (XIII) Give causative agent of tuberculosis.

   (XIV) What is shape of rabies virus ?

   (XV) What is food poisoning ?

   (XVI) Name one insect borne disease.

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1. Explain non specific host defenses in detail. **14**

2. (A) Describe factors affecting the process of infection. **7**

   (B) Discuss host - parasite relationship in brief. **7**

3. Describe normal microbiota of human body in detail. **14**

4. (A) Explain transmission and control of nosocomial infections. **7**

   (B) Describe techniques used to study epidemiology. **7**

5. Write a note on "Transmission and control of food and water borne infections. **14**

6. (A) What is meant by contagious disease? Describe symptoms and diagnosis of syphilis. **7**

   (B) Describe etiological agent, symptoms, transmission and control of rabies. **7**

7. Explain clinical immunology in detail. **14**

8. (A) Explain types of specimens and their method of collection. **7**

(B) Explain growth and biochemical characteristics of various pathogens. **7**

9. Give short and specific answers in **1-2** lines only : (any **eight**) **8**

(I) Define toxigenicity.

(II) How viruses attach to their host cell?

(III) Give two examples of capsule producing bacteria.

(IV) What is endotoxin?

(V) Name two qualities of epidemiological markers.

(VI) What is mortality rate?

(VII) Define gnotobiotic life.

(VIII) Give two examples of organisms responsible for food poisoning.

(IX) Name a disease caused by retrovirus.

(X) Give two examples of arthropod borne disease.

(XI) Give the name of causative agent of typhoid fever.

(XII) Name the causative agent of malaria.

(XIII) Name one transport medium of clinical specimen.

(XIV) What is significance of computer in clinical medicine ?

(XV) What precautions are necessary during transport of viral specimen ?

(XVI) Mention confirmative biochemical reactions of *E-coli*.