

Seat No. : \_\_\_\_\_

**AD-130**  
**April-2023**  
**B.Sc., Sem.- VI**  
**CC-309 : Microbiology**  
**(Medical Microbiology)**

**Time : 2:30 Hours]**

**[Max. Marks : 70**

- Instructions :** (1) All questions are compulsory.  
(2) Draw figures wherever necessary.  
(3) Figures on right side indicate marks

1. Write a note on types and mechanisms of Exotoxins. 14

**OR**

(A) Describe overview of viral pathogenicity. 7

(B) Write a note on gnotobiosis. 7

2. Describe Nosocomial infections. 14

**OR**

(A) Enlist types of vaccines and discuss their hazards. 7

(B) Discuss the techniques to study epidemiology. 7

3. What is clinical specimen ? Discuss different types of specimens and their collection techniques with storage precautions. 14

**OR**

(A) Describe pathological changes in blood and body fluids that aid in diagnosis. 7

(B) Enlist different immunological techniques available for diagnosis and describe Western blotting. 7

4. Discuss aetiology, symptoms, transmission diagnosis and treatment of : AIDS. **14**

**OR**

- (A) Describe Hepatitis A with respect to its aetiology, symptoms, transmission diagnosis and treatment of it. **7**
- (B) Write a note on Rabies. **7**

5. Answer in short : (Any **seven**) **14**

- (1) How do endotoxins work ?
- (2) What is cytopathic effect ? Give two examples of the same.
- (3) Name any four enzymes that help in pathogenicity.
- (4) What is CDC ? Which city harbours its global head-quarter ?
- (5) What is mortality rate ? How will you calculate it ?
- (6) What is Incidence rate and Index case ?
- (7) Name two disease that can be diagnosed using microscopy along with the specimen used.
- (8) What is API20E ? Give its significance.
- (9) The isolated pathogen show following biochemical results:  
Sugars are fermented but with acid production only, H<sub>2</sub>S is positive but urea is negative. Name the bacterium.
- (10) Name the enzymes that help in pathogenicity of Swine flu.
- (11) Enlist complications of Dengue.
- (12) Enlist types of Anthrax and give symptoms of any one type.