

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

# MO-131

March-2019

B.Sc., Sem.-VI

CC-309 : Biochemistry

Time : 2:30 Hours]

[Max. Marks : 70

- Instructions :** (1) All questions carry equal marks.  
(2) Draw diagram wherever necessary.

1. (A) Discuss various cells and organs of immune system. **14**
- OR**
- (i) What is the effect of followings on host system? **7**
- (1) Protein-A
  - (2) Hyaluronidase
  - (3) Fibrinolysis
  - (4) Leucocidin
- (ii) Define endotoxins and discuss their mode of action. **7**
- (B) Answer any **four** **4**
- (1) Define Primary pathogen.
  - (2) What is LD<sub>50</sub>?
  - (3) Give examples of two exotoxins.
  - (4) List the portals of entry for microbes.
  - (5) What is the effect of HCHO and dilute acid on exotoxins?
  - (6) Define : Toxoid.
2. (A) Discuss : The alternative and MBL pathways of complement activation. **14**
- OR**
- (i) Discuss the mode of action of interferon. **7**
- (ii) Explain : Phagocytosis. **7**
- (B) Answer any **four** : **4**
- (1) What is the function of lysozyme?
  - (2) Define : Avidity
  - (3) What are haptains?
  - (4) Draw and label precipitin curve.
  - (5) Which immune response is faster and why?
  - (6) Name the immunoglobulin involved in classical pathway.



3. (A) Discuss the followings : 14
- (1) CFT.
  - (2) Agglutination inhibition
  - (3) RIA
- OR**
- (i) Explain : Process of production of monoclonal antibodies. 7
  - (ii) Discuss : Type III hyper sensitivity. 7
- (B) Answer any **three** : 3
- (1) What is passive immunization ?
  - (2) State one use of Immunoelectrophoresis.
  - (3) Define : Antibody titer.
  - (4) List two causative agents of Type IV hypersensitivity.
  - (5) Name two enzymes commonly used in ELISA.
4. (A) Define transduction. Explain generalized & specialized transduction. 14
- OR**
- (i) Explain : Hfr X F<sup>-</sup> and F<sup>+</sup> X F<sup>-</sup> 7
  - (ii) Discuss : Transformation process in bacteria 7
- (B) Answer any **three** : 3
- (1) Define : Conjugation
  - (2) What is a prophage ?
  - (3) Name the scientists who discovered the process of conjugation.
  - (4) What is interrupted conjugation ? Where it is used ?
  - (5) What is auxotroph and prototroph ?
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