

- All questions are compulsory.
- Draw diagram wherever necessary

Q.I (A) State true or false and correct the sentence if false (Any two)

(04)

1. The differences in innate immunity exhibited by different individuals in a race is known as species immunity.
2. The resident bacterial flora which lives on skin and mucous surfaces is known as transient flora.
3. The light chains in same antibody molecule can have both kappa and lambda varieties.
4. T cells are both produced and matured in bone marrow only.

Q.I (B) Explain the following terms (any two)

(04)

1. Artificial passive immunity
2. Herd immunity
3. Adjuvants
4. Paratope

Q.I (C) Answer the following (any two)

(12)

1. Explain the structure of antibody in brief.
2. Give features of Ig A antibodies.
3. Give general properties of antigens.
4. Give note on adjuvants.

Q.II (A) Explain the following terms (any two)

(06)

1. Pathogenicity
2. Systemic infection
3. LD₅₀
4. Opportunistic pathogen
5. Nosocomial infection
6. Symptom

Q.II (B) Give significance of any one the following as virulence factors of pathogens

(02)

1. Capsule
2. Keratinase

Q.II (C) Answer the following (any two)

(12)

1. Enlist the main features of Koch's postulates and why is it difficult to prove them for some diseases.
2. Give a brief account on bacterial endotoxins.
3. What is indigenous microflora? Describe briefly about the normal flora of the skin.
4. Explain the role of reservoirs in the acquisition of an infection?

(P.T.O.)

Q.I (A) Explain the following terms (any four)

(08)

1. Attenuated vaccines
2. Myelomas
3. Probes
4. Non radioactive labeling of probes
5. Edible vaccine
6. TK
7. RFLP
8. TAB vaccine

Q.III (B) Answer the following (any two)

(12)

1. What are DNA probes? State the applications of DNA probes.
2. With a suitable example explain subunit vaccine. State their advantages and limitations.
3. How are monoclonal antibodies synthesized? State their applications.
4. Explain how the new generations of vaccines have overcome the drawbacks of traditional vaccines?

Q.IV Write short notes (any three) of the following

(15)

1. Activation of T_C cells.
2. Activation of humoral immunity.
3. Vectors with respect to infectious diseases.
4. Normal flora of upper respiratory tract.
5. Conjugate vaccines.
6. Labeling of probes

— The End —