

SEM	SET	PAPER CODE	TITLE OF THE PAPER
VI	2011	11UBO630304A	CORE ELECTIVE IV: IMMUNOLOGY

SECTION – A**Answer all the questions:****20 x 1 = 20****Choose the correct answer:**

- The basic function of cellular immunity is to
 - destroy abnormal cells
 - reject grafts
 - fight virus infections
 - fight intra cellular bacteria
- In special, the B-lymphocytes are largely found in the
 - follicular area
 - periarticular lymph sheath
 - red pulp
 - marginal zone
- An epitope is about the size of
 - one amino acid residue
 - three amino acid residue
 - five amino acid residue
 - ten amino acid residue
- The organisms suitable for use in modified live vaccine are produced by
 - inactivation
 - genetic recombination
 - attenuation
 - hybridization
- Which of the following is a quantitative precipitation technique?
 - gel diffusion
 - Western blot
 - radial immunodiffusion
 - immuno-electrophoresis

Fill in the blanks:

6. When Neutrophils die they do so by a process called _____.
7. T lymphocytes arise in the bone marrow but migrated to mature in the _____.
8. Small organic molecules that are antigenic but not immunogenic are called _____.
9. The most potent adjuvant known as _____.
10. Immune complex precipitates are formed in _____.

State True or False:

11. In the lymph node the T-cells are mainly found in paracortex.
12. The native B-cells contain IgG and Ig E on their membrane.
13. Super antigens are bacterial or viral proteins that can be bind simultaneously to V_{β} region of TCR.
14. A suitable organism for use in recombinant vaccine is vaccinia virus.
15. The antiglobulins are antibodies against immunoglobulin.

Match the following:

- | | |
|---------------------|----------------------------|
| 16. B-cells | - a) Boost immune response |
| 17. Antigen binding | - b) Pregnancy |
| 18. Adjuvant | - c) Stromal cells |
| 19. Toxoid | - d) Fab region |
| 20. ELISA | - e) vaccine |

SECTION – B

Answer all the questions:

5 x 4 = 20

21. a. Describe the structure of thymus with suitable diagram.

OR

b. Bringout the important role of spleen in immune system.

22. a. Write an account of the lymphatic system.

OR

b. Briefly explain haematopoiesis with suitable diagram.

23. a. Explain, how precipitation reaction is used to detect and measures the antigen – antibody reaction.

OR

b. Give a detailed account of T-cell production.

24. a. Bring out the difference between primary and secondary immune response.

OR

b. Give an account on the immunization schedule for normal infants and children.

25. a. Briefly explain the principle and applications of ABO / Rh groups.

OR

b. Bringout the immunological techniques followed in WIDAL test, give its application.

SECTION – C

Answer any FOUR questions:

4 x 15 = 60

26. Explain the various stages of humoral immunity.
27. Explain the structure of IgG with suitable diagrams.
28. Describe the various stages in B-cell production.
29. Explain the types of vaccines and add notes on the mode of administration.
30. Explain the types of ELISA, mechanism and its applications.
