



Date: 01-11-2018

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

PART – A

Answer ALL the Questions

I. Choose the correct answer

(5 x 1 = 5 Marks)

- Which of the following is the site for T cell maturation?
a) Bone marrow b) Thymus c) Spleen d) Appendix
- The major component responsible for transplant rejection is
a) B cells b) T cells c) MHC molecule d) antibodies
- Antibody dependant cytotoxicity is associated with
a) Type I hypersensitivity b) Type II hypersensitivity
c) Type III hypersensitivity d) Type IV hypersensitivity
- The given vaccines are inactivated whole pathogen except
a) Salk b) Sabin c) Hepatitis A d) Tetanus
- Which radioactive element is used in RIA
a) ^{14}C b) ^{20}Ne c) ^{81}Kr d) ^{98}Mo

II. State whether the following are true or false.

(5x1=5 Marks)

- All immunogens are antigens but not all antigens are immunogens.
- The precursor of Plasma cell is B cell.
- Opsonins promote phagocytosis of antigens by binding to them.
- Hybridomas are made by fusing T cells with myeloma cells.
- APC stands for antibody presenting cells.

III. Complete the following

(5 x 1= 5 Marks)

- The ability of antigen to stimulate antibody production is called _____.
- The phenomenon of selective proliferation of B cells in response to their interaction with the antigen is called _____.
- Body's own cells are protected from MAC by the presence of the surface glycoprotein _____.
- The first vaccine developed was against _____.
- _____ is a fluorescent protein which is used in fluorescent activated cell sorting

IV. Answer the following within 50 words

(5 x 1 = 5 Marks)

- What are dendritic cells?
- Define Haptens.

18. Name the test used to measure cancer antigens.

19. What is a recombinant vaccine?

20. What is meant by protein complex immunoprecipitation?

PART B

Answer the following each within 500 words.

(5 x 8 = 40 marks)

Draw diagrams wherever necessary

21. (a) Discuss the role of lymph node in immune system.

OR

(b) What is inflammation and how is it initiated? What are the principle mediators?

22. (a) Write briefly about the basic structure of immunoglobulin.

OR

(b) Give a short note on HLA and its significance for the functioning of the immune system.

23. (a) Give a brief account of the mechanism involved in autoimmunity

OR

(b) Write briefly on Type IV hypersensitivity reaction

24. (a) Compare the advantages of using monoclonal antibodies with that of polyclonal antibodies.

OR

(b) What are abzymes? Mention its applications.

25. (a) Explain the principle associated with the agglutination tests.

OR

(b) Write short notes on immunoscreening of recombinant libraries.

PART – C

Answer any TWO of the following, each within 1500 words.

(2 x 20 = 40 Marks)

Draw diagrams wherever necessary.

26. Explain the main lineages in haematopoiesis.

27. What are the types of transplantation? Explain Graft rejection.

28. Discuss the current status and advancements for vaccine development for AIDS.

29. Give a detailed account on principle, method and applications of Western blot.

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