TELANGANA UNIVERSITY
S.S.R. DEGREE COLLEGE, NIZAMABAD (C.C:5029)
II SEMESTER INTERNAL ASSESSMENT-II EXAMINATIONS
DEPARTMENT OF BIO TECHNOLOGY
(IMMUNOLOGY) QUESTION BANK

1.The antigenic molecule which is attached with a hapten is
a)Grasp
b) Fasten
c)Aptein
d) Carrier

2. In hapten-mediated antigen - antibody reactions, which one of the following functions as anti-genetic determinant?
a) Groups on the surface of antigen
b) Groups on the surface of haptens
c) Groups on the surface of antibody
d) Hapten as a whole

3.Antigen - antibody reactions mediated by haptens depends on
a) Covalent bonds between the antigen and hapten
b) Ionic bonds between the antigen and hapten
c) Hydrogen bonds between the antigen and hapten
d) None of the above

4. A hapten attached to an antigen cannot bind with a particular antibody
a) Unless the structure of the hapten has not been changed
b) Unless the charge of the hapten has not been changed
c)Unless the size of hapten has not been changed
d) Unless the shape of the hapten has not been changed

5. What will happen when a structurally modified hapten is linked with an antigen?

a) The hapten binds with the usual antibody with a great speed
b) The hapten does not bind with the usual antibody
c) The hapten does not function
d) None of the above

6. In hapten - mediated antigen - antibody reaction, the specificity of reaction depends on
a) Surface of antigen
b) Structure of hapten
c) Co-factors
d) All of the above

7.Memory cells are generated in large numbers after
a) The first exposure to an antigen
b) The second exposure to the antigen
c) T cell differentiation
d) Plasma cell formation

8.Presence of M-protein is the characteristic feature of
a) Plasma cells
b) memory cells
c) Macrophages
d) Myeloma cells

9. Myeloma cells arise from which of the following?
a) Immature lymphocytes
b) Macrophages
c) Memory cells
d) Plasma cells

10. Myeloma cells differ from plasma cells in
a) Tumorous growth
b) Production of homogenous immunoglobulins
c) Presence of paraproteins
d) All of the above

11. Which of the following immunoglobulin class is produced from myeloma cells?
a) IgG
b) All immunoglobulin classes
c) IgM
d) IgA

12. Light chain disease is characterized by
a) Production of no light chain
b) Production of heavy chains only
c) Production of light chains alone or in excess
d) None of the above

13. Which of the following is a diagnostic test to detect the presence of myeloma in the body?
a) Electrophosis of urine
b) Precipitation by heating the urine at 50-60°C
c) Both a & b
d) Obermeyer' test

14.Kohler and Milstein for the first time fused B lymphocytes with mice myeloma cells by using
a) Polyethylene glycol (PEG)
b) Polyvinyl alcohol (PVA)
c) Dimethyl-sulphide
d) Sendai virus

15. A hybridoma is a fusion product of
a) An animal cell and a myeloma cell
b) A B lymphocyte and a myeloma cell
c) A T lymphocyte and a myeloma cell
d) A T lymphocyte and a B lymphocyte

16. The antibiotics being added to the culture of B cells and myeloma cells to prevent contamination is
a) Benzyl penicillin
b) Streptomycin
c) Gentamycin and Nystatin
d) All of the above

17. The myeloma cell that has to be used to make hybridoma is selected in such a way that
a) They are defective mutants for hypoxanthine phosphoribosyl transferase
b) They are defective mutants for aminopterin
c) They are defective mutants for thymidine
d) All of the above

18. HGPRT mutant myelomas can be selected by growing myeloma cells in IMDM medium containing
a) 8 - azaquanine
b) Aminopterin
c) 5-bromouracil
d) Hydrofluoric acid

19.Which of the following is the most suitable method for screening hybridoma clones
a) Radioimmunoassay
b) ELISA
c) Indirect hemagglutination
d) Precipitation test

20. Which of the following is of no use for screening hybridma clones?
a) RIA
b) ELISA
c) Indirect hemagglutination
d) Precipitation test

21.The non-antibody producing cells, if any, in a hybridoma clone are eliminated by
a) X-ray irradiation
b) Sub- cloning
c) Selective killing of the cells
d) Repeating the practice

22.The most recent method for screening large synthetic antibody librar-ies is
a) ELISA
b)phage display
c)RIA
d) Biodisplay

23.Which of the following is concerned with cellmediated immunity?
a) T lymphocyte
b) B lymphocytes
c) Macrophages
d) Plasma cells

24. Which of the following is not true of cytotoxic T (Tc) cells?
a) Subset of T cells
b) They recognize cells infected with viruses and parasites
c) T helper cells induce cytotoxic T cell to divide
d) Viruses are carefully destroyed from the infected cells

25. Delayed type hypersensitivity is associated with which one of the following?
a) TD and TH cells
b)Tc cells
c) TH and Ts cells
d)Tr cells

26.Natural killer cells recognize target cells at
a) T helper binding site

b)Class I MHC site
c) Pore-forming protein
d)Rc receptor

27. Immune surveillance is concerned with
a) Cytotoxic T cells
b) Natural killer cells
c) T regular cells
d) Memory cells

28. NK cells provide immunity mainly against
a) Bacteria
b)Virus
c) Mycoplasma
d)Fungus

29. Which is true about the activation of NK cells?
a) Activated by T cells
b) Activated by complements
c) Activated by macrophages
d) Independent of antibody

30.What is the primary function of the Major Histocompatibility Complex (MHC)?
A. Production of antibodies
B. Recognition of antigens by T cells
C. Destruction of pathogens
D. Memory cell formation

31. Which of the following cells expresses MHC Class II molecules?
A. All nucleated cells
B. Red blood cells
C. Antigen-presenting cells (APCs)
D. Muscle cells

32. MHC Class I molecules present antigens to which type of T cells?
A. CD4+ T helper cells
B. CD8+ cytotoxic T cells
C. B cells
D. Natural killer (NK) cells

33. Which chromosome in humans contains the MHC gene complex?
A. Chromosome 1
B. Chromosome 6
C. Chromosome 12
D. Chromosome 21

34. MHC molecules are highly polymorphic. What does this mean?
A. They are identical in all individuals
B. They mutate easily
C. They exist in many different forms (alleles)
D. They cause genetic diseases

35. MHC Class II molecules are composed of how many polypeptide chains?
A. One
B. Two (α and β chains)
C. Three
D. Four

36. Which of the following is not a professional antigen-presenting cell (APC)?
A. Dendritic cell
B. Macrophage
C. B lymphocyte
D. Neutrophil

37. The peptide-binding groove of MHC Class I molecules is formed by which chains?
A. α and β chains

B. α1 and α2 domains
C. β1 and β2 domains
D. α2 and β2 domains

38. Which of the following pathways is used for endogenous antigen processing?
A. Lysosomal degradation
B. MHC Class II pathway
C. Ubiquitin-proteasome pathway
D. Phagocytosis

39.The antibody which is most efficient in agglutination reaction is
A)IgG
B)IgM
C)IgA
D)IgE

40.Heat liable antibody is
A)IgG
B)IgM
C)IgA
D)IgE