

Question Bank- 501 (Immunology)

UNIT: 1

1 Mark:

1. B and T cells are produced by stem cells that are formed in_____?
2. B cells mature in the _____ while T cells mature in the_____?
3. Which of the following immune cells/molecules are most effective at destroying intracellular pathogens.
4. The specificity of an antibody is due to
5. B Cells are activated by_____?
6. The ability of the immune system to recognize self antigens versus non-self antigen is an example of_____?
7. Which organs are known as Primary organs?
8. Which organs are known as a secondary organs?
9. How many cells are known as Phagocytic cells?

2 & 3 Marks:

1. Write a note on Phagocytic activity.
2. Define Herd immunity.
3. Define innate immunity.
4. Define Adaptive immunity.

5 Mark:

1. Write a note on Innate Immunity.
2. Write a note on Adaptive Immunity.
3. Organs of Immune System.
4. Characters of Immune system.
5. Functions of Stem cell, T cell, B cell, NK cell, Macrophage, Neutrophil, Eosinophil, Basophil, Mast cell, Dendritic cell.

UNIT: 2

1 Mark:

1. What is Immune response?
2. Which cell is responsible for generation of Immune response?
3. Give the name of immune response generating cells.
4. Give the difference between Humoral and cell mediated immunity.
5. Cell mediated immunity is carried out by_____while humoral immunity is mainly carried out by_____.
6. Comment on MHC.
7. Cytokines.
8. Interleukin.
9. Primary Immune response

10. Secondary Immune Response

2 & 3 Marks

Write Notes on

1. Phagocytosis.
2. Inflammation.
3. Opsonisation.
4. Complement system.
5. T-cell activation.

5 Mark:

1. Antigen processing and presentation.
2. Killing Mechanisms by CTL.
3. Killing Mechanisms by NK CELLS.
4. Generation of Humoral Immune Response
5. Structure and properties of class I and II MHC

UNIT: 3

1 Mark:

1. Antibody are made up of _____ ?
2. Which of the following immunoglobulin is present normally in plasma at the highest concentration_____?
3. Which immunoglobulin is the principal one found in secretions such as milk?
4. Which type of immunoglobulin is contain Joining chain (J-chain).
5. The _____Immunoglobulin are Pentamers.
6. Which immunoglobulin are responsible for allergic reaction.
7. How many Heavy chain _____and Light chain_____ present in immunoglobulin.
8. When immunoglobulin react with _____reduction and alkylation, a chemical treatment that irreversibly cleaves disulfide bonds.
9. How many types of Heavy chain _____and Light chain_____ present in different structure of immunoglobulin.
10. Which antibody is secreted into serum during a primary antibody response_____?

2 & 3 Marks:

1. Describe IgE.
2. Describe IgM.
3. Write a note on IgG and its types.
4. What is secretory IgA?
5. Define Antibody affinity and avidity.

6. What is the mAb.

5 Mark:

1. Write a note on Antibody diversity.
2. Monoclonal Antibodies.
3. Classes of Antibody and their function.
4. Antigen.
5. Write a note on clonal selection theory.

UNIT: 4

1. Define the term.

Hypersensitivity, Transplantation, Cancer, Autoimmunity, Immunodeficiency

2. What defect is created in Bruton's disease?
3. What is Arthus reaction?
4. What do you mean by allograft?
5. What is xenogenic transplantation?
6. What is antigenic mimicry?
7. What is immunological surveillance?
8. Give examples of immunosuppressive drugs.
9. Give 4 examples of primary immunodeficiency diseases?
10. What is SCID?

2 or 3 marks

1. Which chemical mediators are responsible for onset of type I hypersensitivity?
2. Give brief of type II hypersensitivity.
3. Explain Erythroblastosis fetalis
4. Give classification of hypersensitivity.
5. Give brief of mechanism of Autoimmune Diseases.
6. Give classification of autoimmune diseases & give brief of any one disease.
7. Give types of immunodeficiency diseases with examples.
8. Which are the types of transplant?
9. How to prevent graft rejection?
10. Give types of tumour.

5 marks

1. Discuss in detail anaphylaxis.
2. Explain hypersensitivity.
3. Explain primary immunodeficiency diseases developed due to immunoglobulin deficiency.

4. Discuss in detail SCID.
5. Discuss organ specific auto immune diseases in detail.
6. Discuss systemic auto immune diseases in detail.
7. Discuss in detail possible mechanism of onset of auto immune diseases.
8. Discuss in detail available treatments of auto immune diseases.
9. Give an account on cell mediated graft rejection.
10. Discuss in detail prevention of graft rejection.
11. Explain tumor antigens.

UNIT 5

One mark

1. Commensal
2. Lysozyme
3. Species resistance.
4. Racial Resistance.
5. Natural Resistance.
6. Plaque
7. Desquamation
8. Gnotobiotic
9. Pathogenic
10. Virulent

2 & 3 marks

1. Normal Flora of Gastrointestinal tract.
2. Give the major reason or reasons for the occurrence of the *Propionibacterium acnes* skin in their natural habitat skin.
3. Give the major reason or reasons for the occurrence of the *Lactobacillus species* in their natural habitat vagina.
4. Give the major reason or reasons for the occurrence of the *Bacteroides melaninogenicus* in their natural habitat: in the gingival crevice of teeth.
5. Give the major reason or reasons for the occurrence of the following species of bacteria in their natural habitat: *Streptococcus mutans* on teeth surfaces.
6. How are germfree animals obtained and reared?
7. What benefits might a human host derive from, the normal flora?

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8. What factors make the environments difficult to colonize upper portion of the urethra,
9. What factors make the environments difficult to colonize trachea.
10. What factors make the environments difficult to colonize stomach?
11. What factors make the environments difficult to colonize conjunctiva?
12. Provide an example to illustrate that the laws of natural selection also govern the ecology of the normal flora of the human body.
13. What role does microbial adherence play in establishment of the normal flora?
Give an example.

5 marks

1. Normal flora of Human Body.
 2. Process of infection and types of infection.
 3. Microbial virulence factors.
 4. Write a note on natural resistance.
 5. Describe Microbial Virulence factors.
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