

- (15) How NK cells differ from Tc cells ?
- (16) What do you understand by the term stimulatory antibodies ?
- (17) Write the names of the products of HLA gene complex.
- (18) Define passive immunity.
- (19) What do you understand by inactivated vaccine ?
- (20) What is the role of anatomical barrier ?

SECTION - II

- 2 (a) Answer any three from the following : **3×2=6**
- (i) Explain the adjuvants and write any two examples.
 - (ii) Differentiate BCR and TCR.
 - (iii) Write the properties of immunoglobulin.
 - (iv) Write about pernicious anemia.
 - (v) Why ELISA is better than RIA ?
 - (vi) Write briefly about cytokines.
- (b) Answer any three from the following : **3×3=9**
- (i) Explain briefly with diagram Helper T cells.
 - (ii) Explain the enzymatic digestion of immunoglobulin.
 - (iii) Write a note on : SLE.
 - (iv) Explain Opsonization with diagram.
 - (v) Write a note on MALT.
 - (vi) Write the principle of precipitation reaction and explain the various zone of Precipitation reaction.
- (c) Answer any two from the following : **2×5=10**
- (i) How will you define complements ? Explain classical pathway of complement system.
 - (ii) Explain endocytic pathway of antigen processing and presentation only by using diagram.
 - (iii) Write a detailed note on type-I Hypersensitive reaction.
 - (iv) Explain multi valent vaccine.
 - (v) Explain the various types of ELISA.

- 3 (a) Answer any three from the following : **3×2=6**
- (i) Define the term partial-identity with diagram in antigen antibody reaction.
 - (ii) Explain the term: Naturally acquired passive immunity.
 - (iii) Write the importance of C₃ complements in complement system.
 - (iv) Write the role of Anchor residue in antigen presentation.
 - (v) Write the various mode of HIV transmission.
 - (vi) Define self antigen.
- (b) Answer any **three** from the following : **3×3=9**
- (i) Explain Grave's disease.
 - (ii) Explain Immune Complex-Mediated hypersensitive reaction with any one example.
 - (iii) Write the differences between attenuated and inactivated vaccine.
 - (iv) Write a detailed note on RID.
 - (v) Write a note on toxoid vaccine.
 - (vi) Explain the term affinity and avidity in antigen antibody reaction.
- (c) Answer any **two** from the following : **2×5=10**
- (i) Explain multigene organization of Ig genes in human.
 - (ii) Explain inflammation with diagram.
 - (iii) Write a note on processing of intracellular protein with illustration.
 - (iv) Write a note on Clonal expansion.
 - (v) Explain complement fixation test in detail.
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