

(78) Seat No: _____

No of Printed Pages: 02

SARDAR PATEL UNIVERSITY
M.Sc. Genetics, Third Semester Examination
Wednesday, 19th October 2016
2.00 to 5.00 pm
PS03CGEN01: Immunogenetics

Total Marks- 70

Note: i) Attempt all questions.
ii) Marks are indicated on the right hand side.

Q.1 Answer the following Multiple Choice Questions. All are compulsory **08**

1. Antigenes are filtered out of blood by____
a) Spleen b) Thymus c) MALT d) Bone marrow
2. Virus infected cells produce chemical known as____
a) Lysozymes b) Interferons c) Histamine d) Interleukins
3. CD4 and CD 8 molecules are____
a) Accessory molecules b) Receptors c) Co-receptors d) Signal transduction molecules
4. "Ig gene rearranges" this was experimentally shown by____
a) Tselius b) Dreyer c) Bennett d) Tonegawa
5. To estimate immunoglobulin classes in sera _____ is used
a) Double diffusion in one dimension b) Double diffusion in two dimension c) Single diffusion in two dimension d. Immunoelectrophoresis
6. In ELISPOT _____ is used to observe the results_____
a) Chromogenic substrate b) Luxogenic substance c) Radioactivity d) both a and b dimensions
7. The classical and alternative pathways meet at complement component_____
a) C3 b) C4 c) C5 d) C8
8. autoimmune disease where the body's own antibody attack the cells of the thyroid
a) Type I diabetes b) Primary myxoedema c) Scleroderma d) Hashimotos thyroiditis

Q.2 Attempt Any Seven of the following: **14**

1. Mention the importance of ABO blood grouping.
2. Give the genetic causes of thalassemia.
3. What is receptor editing?
4. Draw schematic diagram of T cell receptor – CD3 complex.
5. Differentiate between peptide binding by class I and class II MHC molecules.
6. What is DNA vaccine?
7. What are the functions of complement system?

(P.T.O.)

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7. What are the functions of complement system?
8. Write about reticular dysgenesis.

- Q.3 A Explain humoral and cell mediated immune response with the help of diagram. 06
Q.3 B Write a note on : Spleen - the secondary lymphoid organ 06

OR

- Q.3 B Write a note on: Sickle cell anaemia. 06
Q.4A Give the outline of the mechanisms involved in generation of antibody diversity. 06
Q.4 B Explain the processing and presentation of endogenous antigens. 06

OR

- Q.4B Discuss hybridoma technology for the production of monoclonal antibody. 06
Q.5 A Write a note on Complement Fixation Test. 06
Q.5 B Explain the classical pathway of complement system 06

OR

- Q.5 B Explain different stages of graft rejection. 06
Q.6A Define autoimmunity? Explain Myasthenia gravis and Graves disease 06
Q.6 B Write a note on SCID. 06

OR

- Q.6B Write Note on: a) insulin dependent diabetes mellitus b) Autoimmune anemia 06

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