M.Sc. Biotech (previous) year Examination, 2016

Faculty of Science

(Virology, Immunology & Pathogenesis)

Time: 3 Hours **Maximum Marks: 100**

Note: Question 1 is compulsory, Attempt five questions in all.

Q1. Answer the following:

i) Any two bacteria producing endotoxins
ii) Difference between exotoxins and enterotoxins
iii) Indicator plants
iv) Double diffusion
v) Difference between capture ELISA and Direct ELISA

Q2. Write in detail about the microflora of skin and their role in host parasite relationship?

Q3. Write in detail types of toxins, their structures and mode of action?

Q4. Describe the composition and ultra structure of capsid and envelope of viruses?

Q5.write short notes on::

i) Cauliflower mosaic virus
ii) Brief account of diagnostic technique in plant

Q6. Describe structure and types of Antibody? Discuss the theories of antibody production?

Q7. Write in detail about the role of lymphocytes in defense mechanism of host?

Q8. Give a detailed account of immunological techniques used in antigen detection?

Q9. Give brief account on:

i) Dendritic cell
ii) Epitopes
iii) Heamatopoiesis
iv) Tc and TH cells

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Q1. Answer the following:

i) Interferons
ii) Virion
iii) Difference between cogenital and acquired immune deficiencies
iv) Incubation period
v) IgG and IgM

Q2. Give a detailed account on antiviral drugs and their mode of action?

Q3. Write short notes on:

i) Poxviridae
ii) Rhabdoviridae

Q4. Describe the cytopathic effects of host virus interaction in plants?

Q5. Write in detail the transmission of plant virus?

Q6. Describe the nature, biology and types of antigens and superantigens?

Q7. Describe in detail antigen presenting cells?

Q8. Give a detail account on generation of Ab in mouse, conjugation and generation of hybridoma?

Q9. Describe hypersensitivity and autoimmunity?