MASTER OF SCIENCE (MICROBIOLOGY) (CBCS - 2018 COURSE)
M.Sc. (Microbiology) Sem-I : WINTER- 2022
SUBJECT : IMMUNOLOGY

Day : Friday | Time : 02:00 PM-05:00 PM

Date : 6/1/2023 | **W-18584-2022** | Max. Marks : 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labeled diagrams **WHEREVER** necessary.

Q.1 Discuss the structure and functions of MHC – I molecules. Discuss regulation of MHC molecules by cytokines. **[15]**

OR

Explain 'Classical pathway' for activation of complements. Mention its significance and regulation.

Q.2 Answer the following:

a) Justify the statement that 'Phage display libraries allow the derivation of monoclonal antibodies without immunization'. **[07]**

b) Discuss the general properties of cytokines. **[08]**

Q.3 Attempt **ANY THREE** of the following: **[15]**

a) Summarise the mechanism of 'hyper acute graft rejection'.

b) Explain the mechanism of 'Contact type of hypersensitivity'.

c) Describe tumors of the immune system.

d) Discuss non-steroidal anti-inflammatory drugs (NSAIDs)

e) What is antibody diversity? Enlist the means of antibody diversity.

Q.4 Write short notes on **ANY THREE** of the following: **[15]**

a) CD_4 apoptosis in AIDS

b) Ig M

c) Role of prostaglandins and leukotrienes in inflammation

d) Interferon therapy for cancers

e) Goodpasteure's Syndrome

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