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Total No. of Pages : 02

Total No. of Questions : 18

**B.Tech. (BT) (2018 Batch) (Sem.-4)**  
**IMMUNOLOGY & IMMUNOTECHNOLOGY**  
**Subject Code : BTBT-402-18**  
**M.Code : 77587**

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

**SECTION-A****Answer briefly :**

- Q1 Opsonization
- Q2 Phagosome and oxidative burst
- Q3 Molecular mimicry
- Q4 Structure and function of Class II MHC
- Q5 Tumor associated antigen
- Q6 Affinity maturation
- Q7 Myeloma cells and Bence jones protein
- Q8 Contact Dermatitis
- Q9 Clonal Anergy
- Q10 Passive Immunization

### SECTION-B

- Q11 How tumor escape from immune response?
- Q12 How HLA typing is carried out and why is it done before transplantation?
- Q13 Explain the missing self- hypothesis of NK cells.
- Q14 Explain the important steps of Radio-immunoassay.
- Q15 Describe the Hybridoma Technology.

### SECTION-C

- Q16 Describe the general mechanism of type I hypersensitive reaction or allergy. Write about systemic anaphylaxis.
- Q17 Describe the principle of flow cytometry. How flow cytometry can be used to count different leukocytes? Briefly discuss the immunofluorescence.
- Q18 Describe the role of different immune cells in control of tumor growth. Describe the two different ways of tumor evasion of the immune system.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**