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END SEMESTER EXAMINATION-2015

M.Tech Biotechnology II Semester

COURSE CODE: 14M11BT212 MAX. MARKS: 45

COURSE NAME: Immunotechnology

COURSE CREDITS: 4 MAX. TIME: 3 HRS

Note: *All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

Section A

Q1. Explain each of the following in short: **[1X 5 = 5]**

a. Herd Immunity

b. Need for humanized antibodies

c. Isotype Switching

d. Negative selection during T cell development

e. Basis of BrdU proliferation assay

Q2. Differentiate each of the following: [2 X5 = 10]

a. De novo pathway and Salvage pathway for DNA synthesis

b. Apoptosis versus Necrosis

c. Allograft versus Autograft

d. MHCI and MHCII

e. B cell Mitogens and T Cell mitogens

Section B

Q1. Answer each of the following. **[3 X5 = 15]**

a. Describe the logistic behind "ADAPT".

b. What are T reg cells? Discuss their relevance in health and disease?

c. "Diabetes and Immunobiology" Is there a link? If yes, how?

d. Antibodies are potential drugs in context of different diseases? Do you agree? If yes, give one example to support your answer.

e. Information derived from Flowcytometry and Immunohistochemistry based studies complement each other to better understand the model system under study. Do you agree? Why or why not?

Section C

Q1. Answer each of the following. [5 X3 = 15]

a. Vaccine development against different pathogenic group require different sets of optimized parameters. Do you agree? If yes, what are the parameters to be considered?

b. Why immunological surveillance against developing tumors is an infrequent phenomenon?

c. What are the different Immune-evasion strategies used by extracellular bacteria?