

Question Paper

Exam Date & Time: 05-May-2018 (02:00 PM - 05:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

MANIPAL COLLEGE OF PHARMACEUTICAL SCIENCES

END SEMESTER THEORY EXAMINATIONS- MAY 2018

PROGRAM: MPHARM SEMESTER 2 (PHARMACEUTICAL BIOTECHNOLOGY)

DATE: 05/05/2018

TIME: 2:00 PM - 5:00 PM

Immunotechnology [PBT-MPB202T]

Marks: 50

Duration: 180 mins.

a

Answer all the questions.

Answer the following (5 marks x 8 = 40 marks)

- 1) Adult bone marrow coordinates HSC development through several cell types. Elaborate. (5)
- 2) Enumerate anatomical barriers to infection and explain how these barriers prevent the entry of pathogens into the human body. (5)
- 3) Describe the mechanism involved in B cell maturation and differentiation. (5)
- 4) What are MHC proteins? Classify and explain their role in adaptive immune system. (5)
- 5) Explain the production of an attenuated viral vaccine. (5)
- 6) Describe the concept and applications of anti idiotypic vaccines. (5)
- 7) Explain the mechanism involved in inflammation. (5)
- 8) What is meant by Autoimmunity? Explain the mechanisms proposed for induction of autoimmunity. (5)

b

Answer all the questions.

Answer the following with specific answers (2 marks x 5 = 10 marks)

- 9) Mention the types of Primary Lymphoid organs and their specific role. (2)
 - A)
 - B) Enlist any four important applications of monoclonal antibodies. (2)

- C) Write the differences between chimeric and human monoclonal antibodies. (2)
- D) What is Rheumatoid Arthritis? Mention the treatment regimen. (2)
- E) Explain the principle of Radioimmune assay. (2)

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