Seat No. _____

HR-BP605T

M. P. M. (Sem. VI) Examination

April - 2023

Pharmaceutical Biotechnology

Time : **3** / Total Marks : **75**

Instructions : (1) Figures to the right indicate marks

(2) Draw neat and clean labeled diagram as and where required.

1 Answer all questions each carry 2 marks : **2×10=20**

1 Describe the advantages of enzyme immobilization'.

2 Discuss the applications of biosensors in brief.

3 How genetic engineering helps to cure rare genetic disorders?

4 Write a note on amylase enzyme.

5 Define attenuated vaccine.

6 Briefly describe the importance of recombinant insulin.

7 What is the role of restriction endonuclease?

8 Write a short note on DNAligase.

9 Write a short note on MHC class I complex.

10 Which storage conditions are recommended for vaccine?

2 Answer any 2 questions each carry 10 marks : **10×2=20**

1 Discuss in detail about recombinant DNA technology.

2 Define immunoglobulins. Discuss its types and importance of each type.

3 Write a detailed note on hypersensitivity reactions.

3 Answer any 7 questions out of 9 each carry 5 marks : **5×7=35**

1 Enlist different types of ELISA technique. Discuss any one in detail.

2 Briefly describe transformation and transduction.

3 Write a detailed note on production of vitamin B 12.

4 Elaborate about western blotting technique.

5 Explain Microbial biotransformation and its 'applications.

6 What is hybridoma technology? Discuss its applications in detail.

7 Explain in detail about killed vaccine and its advantages.

8 Elaborate mutation.

9 Write a detailed note on PCR.

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