DAP-605-T

Seat No. _____

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

April / May - 2022

BP605T : Pharmaceutical Biotechnology

Time : **3** Hours] [Total Marks : **75**

Instruction : (1) Figure to the right side 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) Enlist energy sources used in fermentation technology.
(2) Describe the role of amylase and catalase.
(3) Briefly describe the importance of physical entrapment.
(4) Enlist different microbial strains used in the commercial production of glutamic acid.
(5) Enlist different fermentation products used in pharmaceuticals.
(6) What are the differences between eukaryotic and prokaryotic genome?
(7) Describe the importance of Recombinant technology in pharmaceuticals.
(8) Classify vaccine in detail.
(9) Which media is used to cultivate spleen-myeloma hybrid cells?
(10) What is genetic engineering?

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

(1) Write a detailed note on enzyme immobilization and its application.
(2) Classify immunity. Describe adaptive immunity in detail.
(3) Draw a neat and clean diagram of fermenter. Describe media used in fermentation technology.

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

(1) Describe the strain requirement, media and purification of vitamin B_{12}.

(2) Write a detailed note on inducer and antifoaming agents.

(3) Describe in detail about monoclonal antibodies.

(4) Classify immunoglobulins, describe any one in detail.

(5) Write a detailed note on PCR.

(6) Enlist different types of ELISA techniques. Discuss in detail sandwich ELISA.

(7) Enlist different blood products. Describe any two in detail.

(8) What is Mutation? Describe any one type of mutation in detail.

(9) Write a detailed note on innate immunity.