

Name:

Enrolment No:



UPES

End Semester Examination, May 2023

Course: Pharmaceutical Biotechnology

Program: B Pharm

Course Code: BP605T

Semester : 6<sup>th</sup>

Duration : 03 Hours

Max. Marks: 75

Instructions: All the questions are compulsory

SECTION A

(20Qx1M=20 Marks)

S. No.		Marks	Cos
Q 1	Air lift fermenter is best suited for Aerobic culture. (True/False)	1	CO1
Q 2	Give name of two products obtained by fermentation.	1	CO1
Q 3	Monoclonal Antibodies can be used for diagnostic tests. (True/False)	1	CO1
Q 4	Define Enzymes.	1	CO2
Q 5	Catalases are metalloenzymes. (True/False)	1	CO2
Q 6	Immobilization of enzyme reduced the reusability of enzyme . (True/False)	1	CO2
Q 7	Give one application of genetic engineering.	1	CO3
Q 8	Random site mutagenesis is a technique used for genetic engineering. (True/False)	1	CO3
Q 9	Give a technique to produce site directed mutagenesis.	1	CO3
Q 10	Hybridoma technology is used to produce polyclonal antibodies. (True/False)	1	CO4
Q 11	DNA ligases are important in r DNA experiments. (True/False)	1	CO4
Q 12	Insulin can be produced by rDNA technology. (True/False)	1	CO4
Q 13	Macrophages are Antigen presenting cells. (True/False)	1	CO5
Q 14	MHC-II complex is important in autoimmune disorders. (True/False)	1	CO5
Q 15	IgE is important in allergic reactions. (True/False)	1	CO5
Q 16	Plasma is devoid of clotting factors. (True/False)	1	CO5
Q 17	Give the name of FDA approved fungus for production of Lipases.	1	CO6
Q 18	Give the name of microorganism used for production of Glutamic acid.	1	CO6
Q 19	Submerged culture with aeration is used for production of products by aerobic microorganisms. (True/False)	1	CO6
Q 20	For the production of lipase, lipid should be added to fermentation media. (True/False)	1	CO6

**SECTION B (20 Marks)****(2Qx10M=20 Marks)****Attempt 2 Question out of 3**

<b>Q 1</b>	<b>Discuss in detail about immunology of Hypersensitivity reactions</b>	<b>10</b>	<b>CO4</b>
<b>Q 2</b>	<b>Discuss in detail about Humoral immunity.</b>	<b>10</b>	<b>CO5</b>
<b>Q 3</b>	<b>Discuss in Details about production of Lipase and Amylase by fermentation technology.</b>	<b>10</b>	<b>CO6</b>

**SECTION-C (35 Marks)****(7Qx5M=35 Marks)****Attempt 7 Question out of 9**

<b>Q 1</b>	<b>Write a note on biosensors.</b>	<b>5</b>	<b>CO1</b>
<b>Q 2</b>	<b>Discuss the application of biotechnology in production of pharmaceutical products.</b>	<b>5</b>	<b>CO1</b>
<b>Q 3</b>	<b>What are the differences in immobilization of enzyme by adsorption and covalent bonding.</b>	<b>5</b>	<b>CO2</b>
<b>Q 4</b>	<b>Discuss the advantages and disadvantages of immobilization of enzymes.</b>	<b>5</b>	<b>CO2</b>
<b>Q 5</b>	<b>Discuss application of monoclonal antibodies</b>	<b>5</b>	<b>CO3</b>
<b>Q 6</b>	<b>Write a note on PCR.</b>	<b>5</b>	<b>CO3</b>
<b>Q 7</b>	<b>Discuss r DNA technology.</b>	<b>5</b>	<b>CO4</b>
<b>Q 8</b>	<b>Write a note on antigen presenting cells.</b>	<b>5</b>	<b>CO5</b>
<b>Q 9</b>	<b>Discuss the production of Glutamic acid by fermentation technology</b>	<b>5</b>	<b>CO6</b>