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University under section 2(f) of UGC Act, 1956



**Sessional I (Even) Semester Examination, March 2025**

Roll no.....

Name of the Course: B.Pharm
Semester: VI Semester
Name of the Paper: Pharmaceutical Biotechnology
Paper Code: BP605T
Time: 1.5 hour Maximum Marks: 30

Note:
(i) This question paper contains three sections.
(ii) All sections are compulsory.

Section A

Multiple Choice question (10 X 1= 10) Marks

| | |
|---|---|
| 1. The process of transferring genes from one organism to another is known as:<br>A) Cloning<br>B) Gene therapy<br>C) Genetic engineering<br>D) PCR (Polymerase Chain Reaction)<br><br>2. Which of the following is an application of biotechnology in the pharmaceutical industry?<br>A) Production of insulin<br>B) Genetic modification of fruits<br>C) Extraction of oils<br>D) Designing of fertilizers<br><br>3. .....Biotechnology is related to medicinal products.<br>A) Yellow Biotechnology<br>B) Green Biotechnology<br>C) Red Biotechnology<br>D) White Biotechnology<br><br>4. Beta lactam ring hydrolysed by<br>A) Pencillinase<br>B) Lipase<br>C) Protease<br>D) Amylase<br>5. .....Sensors are based on the principal of sound of vibration.<br>A) Optical<br>B) Piezoelectric<br>C) Calorimetric<br>D) Potentiometric | CO1 |

| | |
|---|---|
| 6. Who invented PCR<br>A) Kary Mullis<br>B) Watson<br>C) E.M Southern<br>D) Meselson | CO2 |
| 7. ……..seals the cut of two DNA molecules<br>A) Lipase<br>B) DNA Ligase<br>C)Trypsin<br>D) All of the above | |
| 8. An enzyme that cleaves of DNA at specific sites<br>A) Restriction endonucleses<br>B) Pepsin<br>C) Protease<br>D) Amylase | |
| 9. The extra-chromosomal circular DNA found in the E.coli is<br>A) Plasmid<br>B) DNA ligase<br>C) Vector<br>D) Cytokinin | |
| 10. The antiviral protein produced by virus infected cells is called<br>A) Insulin<br>B) Auxin<br>C) Vaccine<br>D) Interferon | |

Section B

Short Answer questions (Attempt any TWO) (2X5= 10)

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|---|---|
| 1. What are biosensors explain its working with examples? | CO1 |
| 2. Give mechanism of production of Insulin by rDNA technology. | CO2 |
| 3. Write about recombinant DNA technology and its applications | CO2 |

Section C

Long Answer questions (Attempt any ONE) (1X10=10)

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|---|---|
| 1. Explain Enzyme immobilization, methods and its applications. | CO1 |
| 2. Give brief introduction and applications of PCR. | CO2 |