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| **Name. _____** <br> **Student Admn. No.: _____** | **Printed Pages:01** |

**School of Medical & Allied Sciences**
**Semester End Examination (SEE), Summer Term, August 2023**
**[Programme: B.Pharmacy] [Semester: 2022-23 – Sem VI] [Batch:A ]**

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| **Course Title: Pharmaceutical Biotechnology** <br> **Course Code: BPHT6005** | **Max Marks: 100** <br> **Time: 3 Hrs.** |

***Instructions:***
1. *All questions are compulsory.*
2. *Assume missing data suitably, if any.*

| | | K Level | COs | Marks |
|---|---|---|---|---|
| | **SECTION-A (15 Marks)** **5 Marks each** | | | |
| **1.** | Explain the production vaccines. | K2 | 3 | 5 |
| **2.** | Explain the following: i) ELISA ii) Southern blotting technique. | K2 | 4 | 5 |
| **3.** | Explain the applications of biotechnology with regards to Agriculture. | K2 | 6 | 5 |
| | **SECTION-B (40 Marks)** **10 Marks each** | | | |
| **4.** | Explain the role of microbes in biotechnology. | K2 | 1 | 10 |
| **5.** | Model out the term “Enzyme Biotechnology” & “Enzyme immobilization” along with their applications. | K3 | 1 | 10 |
| **6.** | Organize the role of biotechnology in rDNA technology & genetic engineering. | K3 | 2 | 10 |
| **7.** | Experiment with the term “Vaccines & Interferons” in detail. | K3 | 2 | 10 |
| | **SECTION-C (45 Marks)** **15 Marks each** | | | |
| **8.** | Simplify the term “Immunology” with its applications in detail. | K4 | 3 | 15 |
| **9.** | Discuss the various Immuno-blotting techniques in detail. | K5 | 4 | 15 |
| **10** | Explain the production of Penicillin, Citric acid & Glutamic acid | K5 | 5 | 15 |