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| ,Name. _____ Student Admn. No.: _____ | | Printed Pages:01 | | |
| School of Biological and Life Sciences Summer /Backlog Term Examination – July - August 2024 [Programme: M.Sc in Microbiology Semester:I [Batch:] | | | | |
| Course Title: Molecular Biology | | Max Marks: 100 | | |
| Course Code: P1PT104T, MSDB5002 | | 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. | Discuss the role of transposons and its role. | KL2 | CO2 | 5 |
| 2. | Define the Genetic code and how does it determine protein synthesis? | KL1 | CO4 | 5 |
| 3. | What are introns and exons in gene expression? | KL1 | CO6 | 5 |
| SECTION-B (40 Marks) | | 10 Marks each | | |
| 4. | Illustrate the process of reverse transcription. | KL3 | CO2 | 10 |
| 5. | Explain the Lac Z operon system. | KL4 | CO3 | 10 |
| 6. | Describe the process of DNA damage. | KL2 | CO4 | 10 |
| 7. | Describe the different type of post-translational modifications and their role. | KL4 | CO5 | 10 |
| SECTION-C (45 Marks) | | 15 Marks each | | |
| 8. | Explain the process of DNA replication. | KL6 | CO4 | 15 |
| 9. | Illustrate the nucleosome structure and packaging of DNA. | KL5 | CO5 | 15 |
| 10. | Explain the trp operons system with suitable diagram. | KL5 | CO6 | 15 |

Template 1