

**M.Sc. II Semester Degree Examination, September/October - 2022****21BTH2C6L : GENOMICS AND GENETIC ENGINEERING**

Time : 3 Hours

Maximum Marks : 70

- Instructions :** (1) Answer **any FIVE** of the following questions with Question No.1 is **compulsory**, each question carries **equal** marks.
(2) Draw neat diagrams where necessary.

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| 1. | Give an account on comparative genomics. | 14 |
| 2. | Describe Isolation and Purification of Plasmids. | 14 |
| 3. | Write a note on Viral Vectors. | 14 |
| 4. | Describe gene knockout technique. | 14 |
| 5. | Give an account on DNA fingerprinting. | 14 |
| 6. | (a) Describe pUC 19. | 7 |
| | (b) Give an account on northern hybridization. | 7 |
| 7. | (a) Describe agrobacterium mediated gene transfer. | 7 |
| | (b) Describe AFLP technique. | 7 |
| 8. | (a) Write a note on cosmids. | 5 |
| | (b) Give an account on RNA interference. | 5 |
| | (c) Write a note on patent filing and its importance. | 4 |

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