

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: BE
BRANCH: BIOTECHNOLOGY**

**SEMESTER: V
SESSION : MO/2019**

SUBJECT : BT5025 FUNCTIONAL GENOMICS AND rDNA TECHNOLOGY

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
 2. Candidates may attempt for all 30 marks.
 3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. The missing data, if any, may be assumed suitably.
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- Q1 (a) What is the importance of cloning vector in rDNA Technology? [2]
(b) Describe about immobilized metal ion chromatography and its application in protein purification. [3]
- Q2 (a) What you mean about artificial chromosome? [2]
(b) Write the characteristic feature of BAC and YAC. [3]
- Q3 (a) Describe about genomic evolution. [2]
(b) Discuss about functional genomics as well as its applications. [3]
- Q4 (a) Write about ribozymes and their applications. [2]
(b) Discuss about forward genetics and its applications. [3]
- Q5 (a) Write about restriction and modifying enzymes. [2]
(b) Discuss about Western blot and its applications. [3]
- Q6 (a) Write about site directed mutagenesis and its importance. [2]
(b) Describe about PCR and its applications in rDNA Technology. [3]

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