

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MSC
BRANCH: BT

SEMESTER : I
SESSION : MO/18

SUBJECT: BT407 GENOMICS

TIME: 3:00 HRS.

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) Critically analyze about the world of RNA hypothesis in genomic evolution. [5]
Q.1(b) Evaluate the role of reverse genetics in crop improvement. [5]
- Q.2(a) Evaluate the usefulness of NGS technologies in genome sequencing research. [5]
Q.2(b) Justify that genome annotation has eased the functional characterization of genes. [5]
- Q.3(a) Design a schematic diagram showing use of site directed mutagenesis in protein engineering. [5]
Q.3(b) Assess the importance of CRISPR-Cas9 in genome editing. [5]
- Q.4(a) Evaluate about the advances in rice genomics and its impact on assuring the food security. [5]
Q.4(b) Point out the advances in peanut genomics and its application in peanut production. [5]
- Q.5(a) Justify that advances in genomics has eased the drug discovery. [5]
Q.5(b) Evaluate that advances in genomics has added value in crops. [5]

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