



AB-3137
B. Sc. (Sem. V) Examination
March/April – 2015
MB-13 rDNA Technology

Time : 2 Hours]

[Total Marks : 50

Instruction :

<p>नीचे दशांश देव निशानीवाणी विगतो उत्तरवही पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : B. SC. (SEM. V)</p> <p>Name of the Subject : MB-13 rDNA TECHNOLOGY</p> <p>Subject Code No. : 3 1 3 7 Section No. (1, 2,.....): Nil</p>	<p>Seat No. : □ □ □ □ □ □ □ □</p> <p style="text-align: center;">Student's Signature</p>
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- 1 Give specific answers: 10
- (a) What is cDNA library?
 - (b) What are reporter genes? Explain with examples.
 - (c) Define:
 - (i) Site directed mutagenesis.
 - (ii) Charon phages.
 - (d) List the four characteristics of ideal host for cloning vectors.
 - (e) Name few organisms used for bio-remediation.
- 2 Answer any two of the following: 12
- (a) Explain: Gene fusions are useful in studying gene regulation.
 - (b) Explain: Antibodies and nucleic acid probes are used to detect right clones.
 - (c) Briefly describe bioremediation of organophosphate pesticide.

- 3** Answer any **two** of the following: **16**
- (a) Describe the important components and functions of Ti plasmid.
 - (b) Describe two mechanisms by which transfection of eukaryotic cells occur.
 - (c) Describe blue-white screening in detail.
- 4** Write short notes on any **three** of the following: **12**
- (a) Northern-VS-Southern blotting techniques
 - (b) Production of recombinant therapeutic proteins
 - (c) Essentials of molecular cloning
 - (d) Restriction - modification enzymes
 - (e) Cassette mutagenesis.
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