

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (Bio Technology) (Sem.-6)
GENE EXPRESSION AND TRANSGENICS

Subject Code : BTBT-612-18

M.Code : 79675

Date of Examination : 05-07-22

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) What are Affinity Tags?
- b) What are GLP and GMP?
- c) What is Xenografting?
- d) Define Inclusion Bodies.
- e) Why are Strong and Inducible Promoters used for recombinant protein production?
- f) What are Humanised animal models?
- g) What are the problems encountered in production of recombinant proteins?
- h) What is DNA microinjection used for?
- i) What are Cell free Extracts?
- j) What are retroviruses?

SECTION-B

2. Discuss principle of Working of His, MBP, GST tags.
3. Write a note on Overexpression of Integral membrane Proteins.
4. Discuss GLP and GMP requirements of recombinant protein production.
5. Briefly explain ES cell mediated Gene transfer.
6. Delineate properties of Vectors and Promoters used for Protein expression.

SECTION-C

7. Discuss strategies for Protein over expression in bacteria. Write also challenges in production and ways to overcome these.
8. Deliberate on Cell free protein expression and purification of Tagged and Tag-Free proteins.
9. Write in detail about Transgenic animals :
Method, uses, Biosafety and Ethics.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.