

Roll No.

94082

**B. Sc. Bio-Tech 5th Sem. (N. S.)
Examination – November, 2017**

RE-COMBINANT DNA TECHNOLOGY

Paper : BT-502

Time : Three Hours]

[Maximum Marks : 40

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Question No. 1 is *compulsory* and attempts any *four* more questions selecting *one* question from each Unit given below. All questions carry equal marks.

1. Write the short notes on the following : $8 \times 1 = 8$

~~(a) Plasmid~~

~~(b) Liposome~~

~~(c) Bacteriophage~~

~~(d) Conjugation~~

~~(e) Embryonic stem cells~~

~~(f) Dolly~~

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P. T. O.

(g) Golden rice

~~(h) Arhizogenes~~

UNIT - I

2. Explain the gene recombination & transfer with help of transduction & transformation in bacteria. 8
3. Write the short notes on any *two* : 4 × 2
- (a) Micro-laser
 - (b) Micro-injection
 - (c) Micro-projectile

UNIT - II

4. What is site directed mutagenesis ? Why site directed mutagenesis are useful for us explain in details. 8
5. Write the short notes on any *two* : 4 × 2 = 8
- (a) PCR
 - (b) Phage display tech
 - (c) Gene shuffling

UNIT - III

6. Describe the applications of the Yeast as model to study eukaryotic gene functions. 8

7. Write the short notes on any *two* : $4 \times 2 = 8$

(a) Transgenic animals

(b) Production of vaccine & therapeutic protein

(c) Production & application of human hormones.

UNIT - IV

~~8~~ Explain the various strategies of direct DNA transfer in plant cells? 8

9. Write the short notes on any *two* : $4 \times 2 = 8$

(a) Ti & Pi Plasmids

(b) Viruses as plant vector

~~(c) Gene targeting in plant~~

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