



MCB-003-1132003

Seat No. _____

M. Sc. (Biotech.) (Sem. II) (CBCS) Examination

April / May - 2018

BT - 208 : Molecular Biotechnology - I

Faculty Code : 003

Subject Code : 1132003

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 Answer the following : (any **seven** out of ten, each of **02** marks) **14**
- (1) What is recognition site ?
 - (2) What is RNAi ?
 - (3) What are the essential features of a vector ?
 - (4) What is conecatamer ?
 - (5) What is a vector ?
 - (6) Define the term "Chromosome walking".
 - (7) What is a clone ?
 - (8) What is screening ?
 - (9) What is Directional cloning ?
 - (10) What is gene regulation ?
- 2 Answer the following : (any **two** out of three, each of **07** marks) **14**
- (a) What is genetic engineering? Give its applications.
 - (b) What are restriction enzymes? Describe.
 - (c) Write a short note on restriction mapping.
- 3 Answer the following : (each of **07** marks) **14**
- (a) Give a concise report of Bacteriophage vectors.
 - (b) Write detailed note on Expression vectors.
- OR**
- 3 Answer the following : (each of **07** marks) **14**
- (a) What is genomic library? Discuss strategies of construction of cDNA libraries.
 - (b) What is cDNA synthesis? Describe.

- 4 Answer the following : (each of **07** marks) **14**
- (a) Explain : Microarray.
 - (b) Explain Southern hybridization and Northern hybridization in detail.
- 5 Answer the following : (any **two** out of four, each of **07** marks) **14**
- (a) Write a short note on PCR.
 - (b) Explain DNA sequence by automated method.
 - (c) What is DNA fingerprinting ? Explain.
 - (d) What is linkage analysis ? Describe.
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