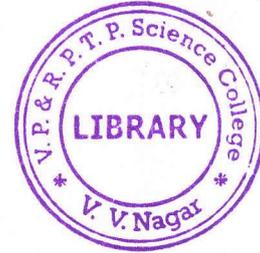


Q-1 Attempt all following multiple choice question. (03)

- (1) Restriction enzymes used in gene manipulation techniques belong to
(a) Class I (b) Class II (c) Class III (d) All of these
- (2) The minimum size of a DNA that a λ phage can package into phage particles is
(a) 38 Kb (b) 52 Kb (c) 49 Kb (d) None of these
- (3) A technique that identifies RNA:
(a) Southern blotting (b) Northern Blotting
(c) Western blotting (d) None of these



Q-2 Attempt the following (any two) (04)

- (1) Write the difference between cohesive end and Blunt end.
- (2) What is the difference between cloning vector and Expression vector?
- (3) Define: (a) DNA foot printing. (b) DNA finger printing.

Q-3 What is DNA sequencing? Explain Sanger's method of DNA sequencing. (06)

OR

Q-3 Explain c-DNA Library Preparation. (06)

Q-4 Write notes on: (1) Phasmid. (03)

(2) Cosmid. (03)

OR

Q-4 Write any four salient features of cloning vector and explain pBR322 cloning vector. (06)

Q-5 Write any three methods of introduction of foreign DNA into a suitable host cell. (06)

OR

Q-5 Write a notes on: (06)

- (1) Colony hybridization.
- (2) Marker inactivation.