

Vitthalbhai Patel & Rajratna P.T.Patel Science College, V.V.Nagar

Internal Test: 2019(Semester V)

Date: 06-03-2019

Sub: Microbiology (USO6 CMIC-02)

Total Marks: -50

Time: 10-00 a.m. to 12-00 a.m.

Q-1 Attempt all following multiple choice question.

(08)

- (1) Restriction enzymes used in gene manipulation techniques belong to  
(a) Class I (b) Class II (c) Class III (d) All of these
- (2) Reverse transcriptase is used in c-DNA technology to synthesize  
(a) DNA from RNA (b) DNA from DNA (c) RNA from DNA (d) None of these
- (3) The minimum size of a DNA that a  $\lambda$  phage can package into phage particles is  
(a) 38 Kb (b) 52 Kb (c) 49 Kb (d) None of these
- (4) Telomere Sequences are found in this vector  
(a) Plasmid (b)  $\lambda$ -vector (c) BAC (d) YAC
- (5) PCR was introduced by  
(a) Nathan smith (b) Karry Mullis (c) Alec Jeffery's (d) Litt & Luty
- (6) DNA finger printing was proposed by  
(a) Nathan smith (b) Karry Mullis (c) Alec Jeffery's (d) Litt & Luty
- (7) DNA polymerase bound DNA region can be identified by \_\_\_\_\_  
(a) DNA polymerization (b) DNA typing  
(c) DNA fingerprinting (d) DNA foot printing.
- (8) Autoradiography identified a probe which is \_\_\_\_\_  
(a) Biotin labelled (b) Radio labelled (c) Digoxigenin labelled (d) Both (a) & (b)



Q-2 Attempt the following (any five)

(10)

- (1) Define: (a) Linker (b) Adaptor
- (2) Write the difference between cohesive end and Blunt end.
- (3) What is the difference between cloning vector and Expression vector?
- (4) Define: (a) Phasmid (b) Cosmid
- (5) What is reporter gene? Give two example of it.
- (6) What do you mean by DNA finger printing?
- (7) Write names of chemicals used for labeling of probes.
- (8) What is microarray?

- Q-3 what is DNA sequencing? Explain Sanger's method of DNA sequencing. (08)  
OR
- Q-3 Explain (a) c-DNA Library Preparation. (04)  
(b) Isolation of RNA. (04)
- Q-4 Write characteristics of a good host for cloning and discuss Phage cloning vector. (08)  
OR
- Q-4 writes a note on YAC cloning vector. (08)
- Q-5 Explain methods of introduction of foreign DNA in host cell. (08)  
OR
- Q-5 Explain Southern and Northern hybridization method. (08)
- Q-6 Discuss Edman's method of protein sequencing. (08)  
OR
- Q-6 Describe the process & principle of PCR along with its advantages. (08)

\*\*\*\*\*End\*\*\*\*\*

