Total No. of Printed Pages:2

SUBJECT CODE NO:- B-2258
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc. T.Y (Sem-V)
Examination November/December-2022
Bio-Technology Paper- XVI
(Recombinant DNA Technology)

[Time: 1:30 Hours] **[Max. Marks:50]**

Please check whether you have got the right question paper.

N.B
1. Attempt All Questions.
2. Draw a diagram wherever necessary.

Q.1 What is blotting? Explain different types of blotting. 20

OR

What is cloning? Explain different cloning strategies.

Q.2 Explain the screening methods used in Recombinant DNA technology 20

OR

Write note on: (any Four) 5×4=20

a) Applications of r DNA technology
b) Transgenic plants and animals.
c) Restriction mapping
d) Electroporation
e) Bacteriophage vectors
f) DNA sequencing.

Q.3 Multiple choice questions. 10

1. Bacteria protect themselves from viruses by fongmenting viral DNA upon entry with

   a) Methy lase b) endonuclease c) ligases d) exonuclease.

2. To be a cloning vector a plasmid does not require

   a) An origin of replication c) Antibiotic resistant marker
   b) A restriction site d) High copy number

3. Which of the following is not component of YAC

   a) Centromere b) Telomere c) Cos site d) origin of Replications

4. For cloning more than 100 kb DNA, which vector would be suitable?

   a) Cosmid b) Plasmid c) Lambda d) YAC

5. The First step in PCR is

   a) Denaturation b) cooling c) primer extension d) Annealing

6. A. tumefaciens is an effective vector for use with

   a) Corn b) Rice c) Wheat d) Soyabean

7. Dideoxy sequencing depends upon one of the following

   a) Termination b) ATP c) Plasmid d) Vector Primer

8. DNA fingerprinting involves.

   a) chain termination b) VNTR loci c) RFLPs d) degenerate oligonucleotides

9. A mouse in which one particular gene has been replaced by it's inactivated form generated in vitro

   a) Transgenic mouse b) Knockout mouse c) nude mouse d) Mutant mouse

10. The essential component of Ti plasmid require for integration into plant genome is

    a) Origin of Replication
    b) Tumor inducing gene
    c) Nopaline utilization gene
    d) All of the above