STD:12 EM BIOLOGY – TEST SERIES Max Mark :25

C4-PRINCIPLES AND PROCESSES OF BIOTECHNOLOGY

I. CHOOSE THE CORRECT ANSWERS

 $5 \times 1 = 5$

1 Assertion: Agrobacterium tumifaciens is popular in genetic engineering because this bacterium associated with the root nodules of all cereals and pulse crops.

Reason: A gene incorporated in the bacterial chromosomal genome gets atomatically transferred to the cross with which bacterium is associated.

- a) Both assertion and reason are true. But reason is correct explanation of assertion.
- b) Both assertion and reason are true. But reason is not correct explanation of assertion.
- c) Assertion is true, but reason is false.
- d) Assertion is false, but reason is true.
- 2 pBR 322, BR stands for
 - a) Plasmid Bacterial Recombination b) Plasmid Bacterial Replication
 - c) Plasmid Boliver and Rodriguez d) Plasmid Baltimore and Rodriguez
- 3 Which of the following one is used as a Biosensors?
 - a) Electrophoresis

b) Bioreactors

c) Vectors

- d) Electroporation
- 4 Consider the following statements:
 - I. Recombinant DNA technology is popularly known as genetic engineering is a stream of biotechnology which deals with the manipulation of genetic materials by man invitro
 - II. pBR322 is the first artificial cloning vector developed in 1977 by Boliver and Rodriguez from E.coli plasmid
 - III. Restriction enzymes belongs to a class of enzymes called nucleases. Choose the correct option regarding above statements.

a) | & ||

b) | & III

c) | | & | | |

- d) I, II & III
- Which one of the following palindromic base sequence in DNA can be easily cut at about the middle by some particular restriction enzymes?
 - a) 5 CGTTCG 3 3 ATCGTA 5
- b) 5 GATATG 3 3 CTACTA 5
- c) 5 GAATTC 3 3 CTTAAG 5
- d) 5 CACGTA 3 3 CTCAGT 5

II VERY SHORT ANSWERS

 $3 \times 2 = 6$

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- What are the enzymes you can used to cut terminal end and internal phospho di ester bond of nucleotide sequence?
- 7 Name the chemicals used in gene transfer.
- 8 What are the materials used to grow microorganism like Spirulina?

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III SHORT ANSWERS

 $3 \times 3 = 9$

- 9 Write the advantages and disadvantages of Bt cotton.
- 10 Write the advantages of herbicide tolerant crops.
- 11 How do you use the biotechnology in modern practice?

IV LONG ANSWERS

 $1 \times 5 = 5$

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12 What are restriction enzyme? Mention their type with role in



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Kindly Send Me Questions & Answers to Us - Email ID: padasalai.net@gmail.com