BIOLOGY

BOOKS - SUPER COMPANION 5 IN 1

BIOTECHNOLOGY : PRINCIPLES AND PROCESSES

One Mark Questions And Answers

1. Do eukaryotic cells have restriction endonucleases? Justify your answer.

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2. Which is the commonly used host cells in genetic engineering?

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3. Which are the common vectors used for cloning genes in plants?

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4. Who discovered the technique of PCR?

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5. What is a bioreactor?

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6. Name the technique by which DNA fragments can be separated?

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7. Name the source of Taq polymerase?

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8. what are recombinant proteins?

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9. Name the commonly used vector for transformation in plant call?

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10. Who isolated Restriction enzyme for the first time?

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11. Define a patent?

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12. Define the term plasmid.

13. Define Biotechnology.

14. Name the compound used for visualizing DNA under UV radiation.

Two Mark Questions And Answers

1. Describe briefly the following :

(a) Origin of replication

(b) Bioreactors

(c) Downstream processing .

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2. Explain briefly:

(a) PCR

(b) Restriction enzymes and DNA

(c) Chitinase

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3. Discuss with your teacher and find out how to distinguish between the following:

(a) plasmid DNA and Chromosomal DNA

(b) RNA and DNA

(c) Exonuclease and Endonuclease.

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4. Mention the tools uesd in recombinant DNA technology.

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5. What are palindromic sequences? Give an example.

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6. How are restriction endonuclease named ?

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7. What are molecular scissors ? Explain their role .

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8. Draw a neat labelled diagram of plasmid pBR322.

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9. Write the applications of PCR technique .

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10. What are nucleases ? Distinguish between exonucleases and endonucleases .

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11. Draw a neat labelled digram of stirred tank bioreactor.

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12. What are 'Selectable markers"? What is their use in genetic engineering?

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13. What is "Insertional inactivation " ?

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14. Draw a net labelled diagram of simple stirred tank bioreactor.

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15. What are bioreactors ? Name the most commonly used bioreactor in genetic

engineering .

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Three Marks Questions With Answers

1. What are the two basic techniques involved in modern Biotechnology?

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2. What are genetically modified organisms ? Name two factors on which their behaviour depends.

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3. What do you mean by"Biopiracy" Give an example?

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Five Mark Questions And Answers

1. Explain the process of recombinant DNA technology.

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2. With the help of a diagram explain plasmid BR322.

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3. a) What is gel electrophoresis? Explain how DNA fragments are separated and detected using this technique.

b) What are plasmids? Mention any two features of an ideal plasmind.

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4. Mention any three tools used in genetic engineering with examples for each.

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