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Unit 12 - Week 10

Register for Certification exam

Course outline

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● Lecture 43 : Basics of rDNA Technology Part - I

● Lecture 44 : Basics of rDNA Technology Part - II

● Lecture 45 :

Assignment 10

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment. **Due on 2019-04-10, 23:59 IST.**

1) Plasmids can be successfully used as a vector for gene cloning as **1 point**

- a. they are extrachromosomal, small circular dsDNA
- b. they have origin of replication
- c. they possess selectable marker
- d. all of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

d. all of the above

2) To cut a DNA molecule, which of the following enzymes is used? **1 point**

- a. Ligase enzymes
- b. Restriction enzymes
- c. Phosphatase enzymes
- d. Polymerase enzymes

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. Restriction enzymes

3) The DNA molecule to which gene of interest is inserted for transferring it to another organism, is called **1 point**

- a. convertor
- b. vector
- c. exporter

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- Lecture 46 :
DNA Transformation
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Solution

- a. Ligase
- b. Lyase
- c. Ribonuclease
- d. Polymerases

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. Ligase

5) The mechanism of intake of DNA from surrounding environment by a cell is called

1 point

- a. Conjugation
- b. Transduction
- c. Transformation
- d. Gene cloning

No, the answer is incorrect.

Score: 0

Accepted Answers:

c. Transformation

6) What is the role of selectable marker in a cloning vector?

1 point

- a. Maintaining the vector in cells
- b. Selective survival of the cells that have the vector
- c. Increasing the cell growth
- d. Expressing the gene in the cell

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. Maintaining the vector in cells

b. Selective survival of the cells that have the vector

7) Multiple cloning site (MCS) in a vector has

1 point

- a. Promoter site
- b. DNA ligation sites
- c. Unique restriction sites
- d. Antibiotic resistance site

No, the answer is incorrect.

Score: 0

Accepted Answers:

c. Unique restriction sites

8) What will happen if the origin of replication is missing in a vector?

1 point

- a. vector will not be taken up by the cell
- b. vector will not contain the gene of interest
- c. vector will not survive in the cell
- d. vector will not replicate

No, the answer is incorrect.

Score: 0

Accepted Answers:*d. vector will not replicate*

9) A large number of copies of a gene can be obtained following

1 point

- a. transformation
- b. polymerase chain reaction
- c. plasmid isolation
- d. whole genome extraction

**No, the answer is incorrect.****Score: 0****Accepted Answers:***b. polymerase chain reaction*

10) Which of the following statement is true?

1 point

- a. PCR machines are known as thermocyclers
- b. Exponential amplification of a gene can be done from very small amount of DNA
- c. Thermostable DNA polymerase is absolutely necessary
- d. All of the above

**No, the answer is incorrect.****Score: 0****Accepted Answers:***d. All of the above*

11) The first step in PCR is

1 point

- a. Renaturation
- b. Denaturation
- c. Annealing
- d. Extension

No, the answer is incorrect.**Score: 0****Accepted Answers:***b. Denaturation*

12) To which side of the primers the restriction sites are included for cloning?

1 point

- a. 5' end
- b. 3' end
- c. Both 5' and 3' ends
- d. Not present in the primers

No, the answer is incorrect.**Score: 0****Accepted Answers:***a. 5' end*

13) The stop codon is present in the

1 point

- a. 5' end of forward primer
- b. 3' end of forward primer
- c. 5' end of reverse primer
- d. 3' end of reverse primer

No, the answer is incorrect.

Score: 0

Accepted Answers:

c. 5' end of reverse primer

14) In PCR the DNA synthesis takes place at

1 point

- a. 64°C
- b. 55°C
- c. 72°C
- d. 98°C



No, the answer is incorrect.

Score: 0

Accepted Answers:

c. 72°C

15) Expression vectors differ from cloning vectors by having

1 point

- a. Selectable marker
- b. Gene expression control elements
- c. Origin of replication
- d. All the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. Gene expression control elements

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