



BIOLOGY

NEET & AIIMS

Mock Test 40 : ZOOLOGY

Example

1. A piece of DNA is subjected to restriction enzyme digestion and the digested sample is

electrophoresed. Which statement is correct in the above context?

A. Smallest fragment is present near cathode

B. Largest fragment is present near anode

C. Largest fragment is present in the middle of the gel

D. Smallest fragment is present near anode

Answer: D



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2. Which of the following is incorrect regarding gel electrophoresis?

A. Agarose gel is used for separation of DNA fragments while polyacrylamide gels are used for protein separation

B. Separated DNA fragments can be visualised with or without staining with ethidium bromide

- C. The desired band of DNA containing gene of interest are extracted from gel by a process known as elution
- D. DNA fragments separate according to their size through sieving effect of agarose gel

Answer: B



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3. Read the given four statements and choose the correct option. a. An alien DNA is linked with the "ori" for multiplication b. Normal E.coli cells do not carry antibiotic resistant genes for tetracycline and ampicilin c. Salmonella typhimurium carry gene for resistance against antibiotic d. An antibiotic resistance gene can be used as a selectable marker or cloning site

A. a, b correct but d incorrect

B. a, b and d correct but c incorrect

C. c and d correct but a and b incorrect

D. a, b, c and d are correct

Answer: D



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4. Which of the following enzymes cannot be used for isolation of DNA from *Lactobacillus*?

A. Lysozyme

B. Protease

C. Cellulase

D. Ribonuclease

Answer: C



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5. Given below are different steps of transformation in a bacterial cell. Arrange them in correct sequence. (i) Heat shock (at 42°C) (ii) Treatment of bacterial cell with divalent cations at 4°C (iii) Bacterial cells are

incubated with recombinant DNA on ice (iv)

Recombinant/Transformed bacteria are plated

and kept at 37°C

A. (i), (ii), (iii), (iv)

B. (ii), (i), (iii), (iv)

C. (ii), (iv), (i), (iii)

D. (iv), (ii), (iii), (i)

Answer: B



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6. Which of the following restriction enzyme site is present in nucleotide sequence of ampicillin resistance gene in pBR322?

A. Pvu I

B. Pvu II

C. Hind III

D. Sal I

Answer: A



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7. Which given statements are incorrect for bioreactors?

A. Larger biomass is produced in a batch culture system w.r.l continuous culture in a bioreactor

B. The most commonly used bioreactors are stirred type

C. Stirrer facilitates even mixing of oxygen and nutrients

D. Bioreactor is a type of fermenter in which raw materials are biologically converted into specific products

Answer: A



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8. From given statements select the incorrect statement. (a) Proteins which are obtained by recombinant DNA technology are called recombinant proteins (b) Downstream

processing include separation and purification of the desired product (c) After purification the product has to be formulated with suitable preservatives (d) Downstream processing and quality control testing do not vary from product to product

A. (a)

B. (b)

C. (c)

D. (d)

Answer: D



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9. Farmer may obtain cost effective maximum yield from their fields without polluting environment by

A. Argo-chemical based agriculture

B. Organic agriculture

C. Genetically engineered crop-based agriculture

D. Green revolution

Answer: C



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10. Read the given statements about properties of genetically modified plants. They exhibit (a) Enhanced nutritional value of food (b) Decreased efficiency of mineral usage by plants. (c) Increased reliance on chemical pesticides (d) Reduced post harvest losses. Which statement is/are correct?

A. a, b and d

B. Only a

C. a and d

D. a, b, c, and d

Answer: C



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11. Select the mismatch

A. cry I Ac – Helicoverpa

B. cry I Ab – Com borer

C. cry II Ab – Corn borer

D. cry I Ab – Ostrinia

Answer: C



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12. What is the reason for death of bollworms due to Bt toxin protein?

A. Inhibition of nerve impluse

B. Disturbed digestion of food in foregut

C. Creation of pores that cause cell swelling and lysis in midgut

D. Lysis of cells of hindgut

Answer: C



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13. RNAi technology was discovered in

A. *Nicotiana tobaccum*

B. *Caenorhabditis elegans*

C. *Meloidogyne incognita*

D. *Bacillus thuringiensis*

Answer: B



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14. Which of the following nematode infects the roots of tobacco plant and causes a great reduction in yield.

A. *Bacillus thuringiensis*

B. *Ascaris lumbricoides*

C. *Wuchereria malayi*

D. *Meloidogyne incognita*

Answer: D



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