

ICAR ARS NET Previous Questions on Agricultural Biotechnology

1. Which of the following pairs are anomers?
 - a) Ribose and Ribulose
 - b) Glucose and mannose
 - c) Pyruvate lactate
 - d) α -D-glucose and β -D-glucose
2. Hybridoma technology is used in the production of
 - a) mRNA
 - b) Monoclonal serum
 - c) Monoclonal antibodies
 - d) Polyclonal antibodies
3. For mitochondrial structure and function mt-DNA specifies
 - a) 10%
 - b) 20%
 - c) 30%
 - d) 40%
4. Which of the following reagent is useful for visualizing DNA?
 - a) Uracil
 - b) DNA polymerase
 - c) Diphenylamine
 - d) Ethidium bromide
5. Homologous pairs line up along equatorial plane during
 - a) Anaphase II
 - b) Metaphase I
 - c) Telophase
 - d) Interphase
6. Between mitotic divisions, the cell is in

a) G0

b) G1

c) G2

d) S phase

7. Most plant cells are surrounded by a rigid cell wall made primarily of

a) Monosaccharides

b) Pectin

c) Chitins

d) Polysaccharides

8. The organelle that functions in the breakdown of cells and tissues is the

a) Episomes

b) Mitochondrion

c) Centrosomes

d) Lysosomes

9. Endoplasmic reticulum

a) Is found only in animals

b) is a system of membrane bound channels

c) is called rough if mitochondria is attached to it

d) is a site of ATP production

10. "9+2" describes the basic structure of which of the following one

a) chromosome

b) Basal body

c) Chloroplast

d) Flagellum

11. The function of nucleus includes

a) Cellular respiration

b) Synthesis of proteins

c) Housing the hereditary information

d) Synthesis of carbohydrates

12. Baculoviruses

a) RNA viruses

b) DNA viruses

c) Both a and b

d) None of the above

13. Secondary metabolites like antibiotics are not essential for

a) Log phase growth

b) Exponential growth

c) Both a and b

d) None of these

14. The restriction enzymes useful to the molecular biologist belongs to

a) Type I

b) Type II

c) Type III

d) Type IV

15. Which of the following vector is suitable for DNA sequencing

a) EMBL

b) PBR 322

c) M 13

d) Lambda

16. During which process, the free end of the chromosome moves from Hfr donor in to the F cell across an intracellular bridge called pili

a) Transformation

b) Transduction

c) Conjugation

d) All of these

17. Francis Jacob and Monod Proposed

a) Lock and Key Hypothesis

b) Gene for Protein Synthesis

c) Operon Synthesis

d) Gene for protein synthesis

18. State which of the following is not a desired characteristic of a vector?

a) Unique restriction site

b) Large Size

c) Gene that confer antibiotic resistance

d) Autonomous replication

19. Which of the following is a carrier hosts for new genes?

a) EcoRI

b) Bacteriophages

c) Nucleus

d) Transplanted Organs

20. Which of the following chemical is used for preparation of competent cell?

a) HCl

b) NaCl

c) CaCl₂

d) Glycine

Answers

1. d) α -D-glucose and β -D-glucose

2. c) Monoclonal antibodies

3. a) 10%

4. d) Ethidium bromide

5. b) Metaphase I

6. b) G₁

7. d) Poly saccharides
8. d) Lysosomes
9. b) is a system of membrane bound channels
10. d) Flagellum
11. c) Housing the hereditary information
12. b) DNA viruses
13. c) Both a and b
14. b) Type II
15. c) M 13
16. c) Conjugation
17. c) Operon Synthesis
18. b) Large Size
19. b) Bacteriophages
20. c) CaCl_2