

27/11/23 AM

Reg. No. : _____

Code No. : 30394 E Sub. Code : AMZO 62

PART C — (5 × 5 = 10 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Recall the scope of Biotechnology.
Or
(b) Enumerate the isolation of Plasmids.
17. (a) Discuss the Cosmid and its advantages.
Or
(b) Summarize the salient features and advantages of pBR322.
18. (a) Explain the structure of Air Lift Bioreactor.
Or
(b) Illustrate the basic steps involved in the production of artificial skin.
19. (a) Write the applications of immobilized enzymes.
Or
(b) Illustrate the principle and methods of transgenesis.
20. (a) Explain the industrial production of butanol.
Or
(b) Grade the DNA finger printing techniques and its applications.

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2023.

Sixth Semester

Zoology – Core

ANIMAL BIOTECHNOLOGY

(For those who joined in July 2020 only)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer:

1. Select one of the blotting technique used to separate the DNA from the sample.
(a) Northern (b) Western
(c) Southern (d) PCR
2. Tell the name of direct intake of DNA fragments from the medium by the bacterial cell is
(a) Transformation (b) Transduction
(c) Microinjection (d) None

3. Choose the gene cloning Vectors.
 - (a) Plasmid
 - (b) Cosmids
 - (c) Viral DNA
 - (d) All of these
4. Lamda phage vectors are also called as _____.
 - (a) Temperate phage
 - (b) Bacteriophage
 - (c) Zoophage
 - (d) Phytophage
5. Material used as a pH regulator in the culture media is _____.
 - (a) Phenol red
 - (b) Acetic acid
 - (c) Formic acid
 - (d) None
6. Relate the process of making a protective covering around the animal cell is
 - (a) Pellicle
 - (b) Encapsulation
 - (c) Chitin
 - (d) Capsule
7. Select the cell which is isolated from the fully developed organ is _____.
 - (a) Adult stem cells
 - (b) Embryonic cells
 - (c) Plasma cells
 - (d) White blood cells
8. The world's first cloned mammal is _____.
 - (a) Fish
 - (b) Dolly
 - (c) Rat
 - (d) Mice
9. Select the microbe which produce ethanol from carbohydrate wastes
 - (a) E.coli
 - (b) Bacillus
 - (c) Monilia
 - (d) Agaricus

10. One of the tertiary method of sewage treatment is _____.
 - (a) Screening
 - (b) Oxidation pond
 - (c) Sedimentation
 - (d) Aerobic process

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Recall the gene transfer by Microinjection method.

Or

 (b) Enumerate the western blotting technique.
12. (a) Explain the genomic library.

Or

 (b) Illustrate the animal virus vector (AV40).
13. (a) Write substrates necessary for an animal cell culture.

Or

 (b) Explain the advantages of organ culture.
14. (a) Explain biosafety.

Or

 (b) Explain the intellectual property right.
15. (a) Evaluate the uses of biochip.

Or

 (b) Summarize the types of bioremediation.