

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024
(Sixth Semester)

Branch – ZOOLOGY

BIOTECHNOLOGY - II

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Which of the following components of the animal cell supports and protects the cell?
(a) Nucleus (b) Cell membrane
(c) Vacuoles (d) DNA
2. Choose any one of the following produces energy in the form of ATP in the cells of an organism?
(a) Chromatin (b) RNA
(c) DNA (d) Mitochondria
3. The growth of animal cells in vitro in a suitable culture medium is called
a) Gene expression b) Transgenesis
c) Plant tissue culture d) Animal cell culture
4. The type of fermentation observed in yeast is
a) acrylic fermentation (b) lactic acid fermentation
c) pyruvic fermentation (d) alcoholic fermentation
5. An enzyme that joins the ends of two strands of nucleic acid is:
a) Polymerase b) ligase
c) synthetase d) Helicase

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a) List out the advantages of animal cell culture.
OR
b) Explain cell line.
- 7 a) Discuss about erythropoietin.
OR
b. Write notes on Transgenic animals.
- 8 a). List out the requirements of plant cell culture.
OR
b.) Write notes on Explant.
- 9 a) Write notes on Fermentor.
OR
b) Describe the Primary metabolites.

Cont...

- 10 a) Enumerate the nutritive value of spirulina.
OR
b) Describe the enzyme biotechnology.

SECTION -C (30 Marks)

Answer ALL questions
ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a) Explain the culture media for animal tissue culture.
OR
b) Describe the procedure for production of a cell line.

- 12 a) Summarize the bioproducts from cell culture.
OR
b) Explain the molecular markers.

- 13 a) Narrate the steps of callus culture.
OR
b) Explain the transgenic plants.

- 14 a) Give an account on cryopreservation.
OR
b) Discuss about Downstream processing.

- 15 a) Describe the single cell protein.
OR
b) Enumerate the applications of Enzymes in industries.

Z-Z-Z END