

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION JUNE 2014
(Sixth Semester)

Branch – BIOTECHNOLOGY

ANIMAL BIOTECHNOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 2 = 20)

- 1 What is balanced salt solution?
- 2 Describe the role of CO₂ in animal cell culture medium.
- 3 What are the advantages of cryopreservation?
- 4 Describe the role of feeder layers in animal cell culture.
- 5 Define animal viral vector. Give any two examples of it.
- 6 Explain transformation with examples.
- 7 What are the advantages of ICSI?
- 8 Explain in short about semen banking.
- 9 Describe the role of BGH in transgenesis.
- 10 What is nuclear transfer technique?

SECTION - B (25 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 5 = 25)

- 11 a Animal cell culture medium – Discuss in detail.
OR
b Give a short note on cell line.
- 12 a Give a brief note on tissue engineering.
OR
b What is apoptosis? Explain it with examples.
- 13 a Explain in detail i) Microinjection ii) Electrophoration.
OR
b Give a short note on hybridoma technology.
- 14 a Discuss – Process of fertilization.
OR
b Give a detailed account on gametogenesis.
- 15 a Write a note on stem cells.
OR
b How are culture based vaccines beneficial in cell culture research?

SECTION - C (30 Marks)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks (3 x 10 = 30)

- 16 Write down the essentials of animal cell culture and discuss CO₂ incubator in detail.
- 17 Discuss – Types of cell culture.
- 18 Give a short note on i) Gene targeting ii) Gene silencing
iii) Gene knockout
- 19 Explain genetic regulations in Drosophila embryo.
- 20 How is transgenic animal produced? Discuss some of its applications.

Z-Z-Z

END