

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2019
(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 Define gametogenesis.
- 2 What is an acrosome?
- 3 Define Pluripotency.
- 4 What is BSS?
- 5 What is a suspension culture?
- 6 Define cryopreservation.
- 7 What is gene knockout?
- 8 What is gene silencing?
- 9 What is a stem cell?
- 10 Expand ANDi.

SECTION - B (25 Marks!)

Answer **ALL** Questions

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

- 11 a Give a brief account on the process of oogenesis.
OR
b Give a brief account on embryo collection and preservation.
- 12 a Write a note on role of CO₂ in media.
OR
b Give a brief note on advantages and disadvantages of serum containing media.
- 13 a What is trypsinization? Explain briefly about warm trypsinization,
OR
b Write a short note on cell synchronization.
- 14 a Give a brief account on DNA Microinjection.
OR
b Explain briefly about knockout mice and their uses.
- 15 a Explain in brief about embryonic stem cell cultures and their applications.
OR
b Explain gene cloning in special reference to Dolly.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 What is IVF? Add an account on the strategies and applications.
- 17 Explain in detail about the facilities required for animal cell culture laboratory.
- 18 Explain in detail about the biology of cultured cells.
- 19 Explain in detail about retroviral vectors.
- 20 Write in detail about ethical issues in animal biotechnology.