

Exam Date & Time: 26-Sep-2020 (10:00 AM - 01:30 PM)



PSG COLLEGE OF ARTS AND SCIENCE

Note: Writing 3hrs: Checking & Inserting Image : 30mins

BSc DEGREE EXAMINATION MAY 2020
(Sixth Semester)

Branch - BIOTECHNOLOGY
ANIMAL BIOTECHNOLOGY [14BTU24]

Marks: 75

Duration: 210 mins.

SECTION A

Answer all the questions.

- 1) What is Acrosome? (2)
- 2) What is MOET? (2)
- 3) What is the role of HEPES in animal cell culture media? (2)
- 4) What is the significance of serum in animal cell culture media? (2)
- 5) What is contact inhibition? (2)
- 6) What is the role of feeder layers in cell culture? (2)
- 7) What is electroporation? (2)
- 8) What is the role of aminopterin in HAT selection? (2)
- 9) Define ANDi. (2)
- 10) Define somatic cell genetics. (2)

SECTION B

Answer all the questions.

- 11) Explain the process of spermatogenesis with a neat diagram. (5)
 - a)
- [OR] Explain the various steps involved in collection and preservation of embryos. (5)
 - b)
- 12) Write down the advantages and disadvantages of serum containing media. (5)

- a)
[OR] What is BSS? Explain its role in animal cell culture media. (5)
b)
- 13) Write short notes on FACS. (5)
- a)
[OR] Explain briefly about cryopreservation. (5)
b)
- 14) Outline the strategies involved in DNA micro injection. Add a note on its merits and demerits. (5)
- a)
[OR] What is a gene Knockout in mice? Write down its applications. (5)
b)
- 15) Narrate the strategies involved in the production of DOLLY. (5)
- a)
[OR] Briefly explain about the ethical issues in animal biotechnology. (5)
b)

SECTION C

Answer 3 out of 5 questions.

- 16) What is IVF? Explain the strategies involved in IVF. (10)
- 17) How will you formulate the effective animal cell culture medium? (10)
- 18) What is trypsinization? Explain in detail. (10)
- 19) Explain the various strategies involved in HAT selection. (10)
- 20) What is an embryonic stem cell? Write in detail about stem cell culture and its applications. (10)

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