

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

**BSc DEGREE EXAMINATION DECEMBER 2017**  
(Fourth 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 Write about semen banking.
- 2 Explain about the process of super ovulation.
- 3 What is the role of amino acids in animal cell culture media?
- 4 Define the term pluripotency.
- 5 What is cell synchronization?
- 6 What is Haemocytometel, explain its role in animal cell culture.
- 7 Explain how HAT selection is done.
- 8 Write the names of any two animal viral vectors used for transfection.
- 9 Write short notes on polly.
- 10 Write about the importance of ANDi.

**SECTION - B (25 Marks)**

Answer **ALL** Questions

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

- 11 a Explain about role of maternal contribution in embryo development.  
OR  
b Write short notes on genetic regulation involved in drosophila homeotic genes.
- 12 a Write about the functions of media constituents.  
OR  
b Explain about the equipments required for animal cell culture.
- 13 a Write short notes on role of feeder layers in cell culture.  
OR  
b Explain about cell counting methods used in animal cell culture.
- 14 a Write brief notes on selectable markers with suitable examples.  
OR  
b Write an account on gene silencing.
- 15 a Explain the process of animal cloning with dolly as a typical example.  
OR  
b Write short notes on somatic cell genetics.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

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

- 16 Write about the advantages and disadvantages of serum containing media and serum free media.
- 17 Explain in detail about the process of gametogenesis and fertilization in animals.
- 18 Explain in detail about the types of cell culture.
- 19 Explain about the physical methods of transfection .
- 20 Explain in detail about cell culture based vaccine with an example.