

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2022
(Second Semester)

Branch – ZOOLOGY

EMBRYOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. _____ provides energy to the sperm for its movement.
(i) Tail (ii) Middle piece
(iii) Head (iv) Acrosome
2. Which of the following organ is formed during gastrulation in frog?
(i) Gill (ii) Vitelline membrane
(iii) Heart (iv) Archenteron
3. Fate map of embryo is prepared in ----- stage.
(i) Morula (ii) Blastula
(iii) Gastrula (iv) Neurula
4. Which of these is found in the middle piece of mammalian sperms?
(i) Mitochondria (ii) Nucleus and mitochondria
(iii) Ribosome (iv) Centriole
5. IVF stands for _____
(i) Inevitable fertilization (ii) Inverted fertilization
(iii) In vitro fermentation (iv) In vitro fertilization

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6 a Explain the function of sperm.
OR
b Narrate the significance of fertilization.
- 7 a Describe the fate map of blastula in frog.
OR
b Sketch the structure of brain in frog.
- 8 a Draw the layout of the chick egg.
OR
b Briefly explain the embryonic gastrulation in chick.
- 9 a What is blastocyst? How does it formed?
OR
b Classify the placenta mammals.
- 10 a Briefly describe the embryo transfer implantation.
OR
b Narrate the advantages of in-vitro fertilization.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a. Enumerate the process of fertilization in Mammal.
OR
b. Elucidate the structure and function of egg membranes.
- 12 a. Write an elaborate account on pattern of cleavage in frog.
OR
b. Discuss the formation of heart during the development of frog.
- 13 a. Discuss the formation of the blastula during the development of chick.
OR
b. Enumerate the extra embryonic membranes of chick.
- 14 a. Write an account note on pattern of cleavage in rabbit.
OR
b. Elucidate the major functions of placenta.
- 15 a. Justify the advantages and disadvantages of artificial insemination.
OR
b. Examine the embryonic stem cell therapy.

Z-Z-Z

END