

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2019  
(Second Semester)

Branch-ZOOLOGY

**EMBRYOLOGY**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10x1 = 10)

- 1 The acrosome of spermatozoon is derived from  
(i) ER (ii) Ribosomes  
(iii) Mitochondria (iv) Golgi complex
- 2 In insects the eggs are of  
(i) Macrolecithal type (ii) Microlecithal type  
(iii) Mesolecithal type (iv) Telolecithal type
- 3 Cleavage occurs after  
(i) Fertilization (ii) Gastrulation  
(iii) Differentiation (iv) Metamorphosis
- 4 The eyes develop as two lateral outgrowths of the prosencephalon is called  
(i) Optic vesicle (ii) Optic cup  
(iii) Retina (iv) Cornea
- 5 The blastula of frog is called  
(i) Coeloblastula (ii) Blastocyst  
(iii) Discoblastula (iv) Periblast
- 6 The chick embryo is  
(i) A shaped (ii) B shaped  
(iii) C shaped (iv) D shaped
- 7 The syndesmochorial placenta is found in  
(i) Pig (ii) Horse  
(iii) Sheep (iv) Monkey
- 8 Which of the following is a mammalian blastula?  
(i) Blastocyst (ii) Discoblastula  
(iii) Coeloblastula (iv) All
- 9 The embryo below \_\_\_\_\_ cell stage is selected for embryo transfer.  
(i) 12 (ii) 14  
(iii) 16 (iv) 18
- 10 The embryonic stem cells are found as the inner cell mass in the  
(i) Blastocyst (ii) Thymus  
(iii) Trachea (iv) Blood cells

Cont...

**SECTION - B (35 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks (5 x 7 = 35)

- 11 a What is fertilization? Mention its significance.  
OR  
b Elucidate the structure of a mammalian sperm.
- 12 a With suitable diagram, discuss the development of ear in frog.  
OR  
b Briefly describe the mechanism of gastrulation in frog.
- 13 a Explain in brief the embryonic induction in vertebrates.  
OR  
b Write down the characteristic features of 72 hours chick embryo.
- 14 a Briefly describe the embryogenesis of rabbit.  
OR  
b Explain the role of hormones in sexual cycle.
- 15 a Comment on artificial insemination.  
OR  
b Discuss briefly about embryo transfer technique.

**SECTION - C (30 Marks!)**

Answer any **THREE** Questions

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

- 16 Describe the process of spermatogenesis.
- 17 With suitable diagram, explain the development of brain in frog.
- 18 Write an essay on extra - embryonic membranes in chick.
- 19 Explain the types of placenta in mammals.
- 20 Give a detailed account on in vitro fertilization.

Z-Z-Z

END