### PSG COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS)

### **BSc DEGREE EXAMINATION DECEMBER 2017**

(Second Semester)

# Branch - **ZOOLOGY**

### **EMBRYOLOGY**

Time: Three Hours Maximum: 75 Marks

# **SECTION-A (20 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks (10x2 = 20)

### Answer in one or two sentences:

- 1 Sertoli cells.
- 2 Graafian follicles.
- Fate map.
- 4 Blastula.
- 5 Inductor.
- 6 72 hours chick embryo
- 7 Blastocyst.
- 8 Cleavage.
- 9 IVF.
- 10 Stem cells.

### **SECTION - B (25 Marks!**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks  $(5 \times 5 = 25)$ 

11 a Classify eggs and cite examples.

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- b Explain the process of oogenesis.
- 12 a Discuss the mechanism of gastrulation in Amphioxus.

OR

- b Explain briefly the development of heart in frog.
- 13 a Write down the salient features of 24 hours of chick embryo.

OR

- b Enlist the salient features of 48 hours of chick embryo.
- 14 a Examine critically the role of hormones in sexual cycle.

OR

- b Explain the structure of egg.
- 15 a Comment on embryo cloning.

OR

b Describe the production of chimeric mouse.

#### **SECTION - C 130 Marks)**

Answer any **THREE** Questions

ALL Questions Carry EQUAL Marks  $(3 \times 10 = 30)$ 

- Explain the process of Spermotogenesis.
- With suitable diagram, describe the development of brain in frog.
- Write an essay on extra embryonic membranes of chick.
- Discuss elaborately the types of placenta in mammals.
- 20 Explain the following: (i) Artificial in remination

(ii) Embryo transfer

Z-Z-Z END