

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2019
(Second Semester)

Branch - ZOOLOGY

EMBRYOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

- 1 The middle piece of spermatozoon is composed of
(i) Nucleus (ii) Nucleolus
(iii) Ribosomes (iv) Mitochondria
- 2 The ova or eggs containing moderate amount of yolk are called
(i) Microlecithal (ii) Mesolecithal
(iii) Macrolecithal (iv) Alecithal
- 3 The first cleavage plane of styela is
(i) Meridional (ii) Latitudinal
(iii) Horizontal (iv) All
- 4 A chart showing the fate of each part of an early embryo in a particular blastula is called
(i) Fate map (ii) Epiauxesis
(iii) Involution (iv) Conrescence
- 5 In 48 hours chick embryo, the tabular heart is
(i) 'J' shaped (ii) 'S' shaped
(iii) 'T' shaped (iv) 'Z' shaped
- 6 Which of the following provides a kind of private aquarium?
(i) Amnion (ii) Chorion.
(iii) Yolk sac (iv) Allantois
- 7 Diffuse placenta is found in
(i) Pig (ii) Horse
(iii) Lemur (iv) All
- 8 _____ hormone is injected to induce oestrous cycle.
(i) Progesterone (ii) Thyroxine
(iii) Estrogen (iv) LTH
- 9 The cells taken from mesoderm give rise to cells of
(i) Bone marrow (ii) Blood cells
(iii) Adrenal cortex (iv) All
- 10 The transfer of fertilized and developing egg into the uterus of mother is called
(i) Embryo transfer (ii) Birth control
(iii) Cloning (iv) Artificial insemination

Cont...

SECTION - B (35 Marks)

Answer **ALL** Questions

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

- 11 a What is parthenogenesis? Explain its types.
OR
b Classify eggs and cite examples.
- 12 a Explain the development of eye in frog.
OR
b Describe the mechanism of gastrulation in Amphioxus.
- 33 a Enlist the characteristic features of 48 hrs chick embryo.
OR
b Discuss briefly the extra-embryonic membranes in chick.
- 14 a Examine critically the role of hormones in sexual cycle.
OR
b Briefly describe the types of placenta in mammals.
- 15 a Give a brief account on artificial insemination.
OR
b Write a short account on embryo transfer technique.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 Discuss the process of Oogenesis.
- 17 With suitable diagram, explain the development of heart in frog.
- 18 Explain in detail the embryogenesis of chick.
- 19 Describe the embryogenesis of rabbit.
- 20 Explain the following (i) Embryo cloning (ii) Embryonic stem cells.

Z-Z-Z

END