

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034****M.Sc. DEGREE EXAMINATION – ZOOLOGY****FIRST SEMESTER – NOVEMBER 2023****PZO1MC02 – ADVANCED DEVELOPMENTAL BIOLOGY**

Date: 03-11-2023

Dept. No. 

Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

**SECTION A – K1 (CO1)****Answer ALL the questions****(5 x 1 = 5)****1 Answer the following**

- a) Cryopreservation.
- b) Gastrulation.
- c) Hox genes.
- d) Epimorphosis.
- e) Teratogens.

**SECTION A – K2 (CO1)****Answer ALL the questions****(5 x 1 = 5)****2 Answer the following**

- a) Prenatal diagnosis.
- b) Polyspermy.
- c) Intracellular communication.
- d) Cell death.
- e) Lens placode.

**SECTION B – K3 (CO2)****Answer any THREE of the following****(3 x 10 = 30)**

- 3 Interpret on cell fate and cell lineages
- 4 Discuss the process of spermatogenesis
- 5 Explain common causes of infertility in female.
- 6 Enumerate the role of egg cortex during cleavage.
- 7 Describe axis formation in *Drosophila*.

**SECTION C – K4 (CO3)****Answer any TWO of the following****(2 x 12.5 = 25)**

- 8 Write a note on morphogenetic gradients.
- 9 Explain polycystic ovary syndrome
- 10 Highlight the role of maternal genes during development.
- 11 Explain in born errors in man

**SECTION D – K5 (CO4)****Answer any ONE of the following****(1 x 15 = 15)**

- 12 Interpret on various patterns of regeneration
- 13 Summarize the ethical implication of cloning

**SECTION E – K6 (CO5)****Answer any ONE of the following****(1 x 20 = 20)**

- 14 Elaborate on Assisted reproductive technology.
- 15 Enumerate the placental types in mammals.

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