



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test II April, 2025
II SEMESTER

Class : I PG Zoology
Major/Branch : Zoology

Time : 2 Hours
Max. Marks: 60

23MZOC09 Developmental Zoology

Course Learning Outcomes:

1. Compare and contrast the developmental stages amongst the variety of animal phyla.
2. Understand the mechanism of fertilization, cleavage and gastrulation.
3. Describe the cellular control in the development of the embryo
4. Knowledge on the potential role of stem cells and its research applications
5. Understand the human menstrual cycle, implantation, parturition, birth defects and test tube baby

6x1= 6

Part-A

Circle the correct answer

- 1 The organizer originates in the ... CO3 K3
a. vegetal pole region b. animal pole region c. nuclear region d. gray crescent region
- 2 During pregnancy, the teratogenic effects are more likely during CO3 K3
a. 1st month b. last three months c. 1st three months d. equal during all phases of pregnancy
- 3 All the statements given below at the time of ovulation in the female are correct. Except, CO4 K6
a. zona pellucid has broken down b. meiosis -I has occurred c. meiosis-II is arrested at metaphase d. first oocyte has just been expelled
- 4 Implantation is the attachment of the blastocyst to the uterine wall, which takes place CO4 K5
a. about 10 days after fertilization b. about 7 days after fertilization
c. about 14 days after fertilization d. about 21 days after fertilization
- 5 Luteal phase of menstrual cycle is characterized by all the following, except CO5 K4
a. decreased amount of progesterone b. presence of functional corpus luteum
c. sacculation of endometrial glands d. low of LH
- 6 The correct sequence which indicated the development of ovum is CO5 K5
a. zygote, blastula, cleavage, gastrula b. zygote, cleavage, blastula, gastrula
c. zygote, cleavage, gastrula, blastula d. zygote, morula, neurula, gastrula

3x6 =18

Part B

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 7.a Explain the nuclear transplantation in amphibians CO3 K1
(or)
- 7.b Comment on cytoplasmic determinants CO3 K2
- 8.a Appraise the types of embryonic induction CO4 K3
(or)
- 8.b List the types of stem cells you have studied CO4 K3
- 9.a Write short notes on Metaplasia CO5 K1
(or)
- 9.b A test - tube baby is the product of a successful human reproduction - Justify CO5 K5

3x12=36

Part C

Answer ALL questions

Each answer should not exceed 800 words or four pages

- 10.a Organise the cytoplasmic control of nucleus during development. CO3 K4
(or)
- 10.b Recite the the nature and functions of organiser CO3 K4
- 11.a Trace the concept of competence CO4 K2
(or)
- 11.b Discuss the concept of determination CO4 K2
- 12.a Assemble the progressive and regressive changes occur during the metamorphosis in amphibians CO5 K3
- 12.b (or) CO5 K2
Illustrate the different phases of menstrual cycle

No. of copies : 6

Staff in charge : Dr. G. Maheswari