

**B.Sc. Semester-VI Examination, 2022-23****ZOOLOGY [Honours]**

Course ID : 62611 Course Code : SH/ZOO/601/C-13

Course Title : Developmental Biology

Time : 1 Hour 15 Minutes

Full Marks : 25

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.***UNIT-I**1. Answer any **five** of the following questions:

1×5=5

- What is delamination?
- Distinguish between A-type and B-type spermatozoa.
- State the function of periblast.
- What is discoidal cleavage?
- What is meant by pluripotent cells?
- Define centrolecithal egg with example.
- Define competence.
- How cleavage is affected by the amount of yolk?

*[Turn Over]***UNIT II**2. Answer any **two** of the following questions:

5×2=10

- What is stem cell? State its two therapeutic uses. State the properties of stem cell. 1+2+2=5
- Describe briefly the development of eye in chick with proper diagram. 3+2=5
- What is regeneration blastema? Give an account of regeneration of limbs in Amphibia. 1+4=5
- What is gastrulation? What is the significance of embryonic induction? Write its types.

1+2+2=5

**UNIT-III**3. Answer any **one** of the following questions: 10×1=10

- What do you mean by capacitation? Describe the following process related to fertilization: Acrosome reaction, entry of sperm into egg, cortical reaction. How polyspermy is prevented during fertilization? 1+2+2+2+3=10
- Write short notes on any **two** of the following : 5×2=10
  - Amniocentesis
  - Types of Placenta
  - Spermiogenesis
  - Extra embryonic membranes in chick