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RNLKWC/B.Sc./CBCS/VIS/H/C13T/22

**2022**

**ZOOLOGY**

**[HONOURS]**

**(B.Sc. Sixth Semester End Examination-2022)**

**PAPER-C13T**

*Full Marks: 40*

*Time: 02 Hrs*

*The figures in the right hand margin indicate marks*

*Candidates are required to give their answers in their own words as far as practicable*

*Illustrate the answers wherever necessary*

**Group A**

- 1. Answer any FIVE questions of the following: 5x2= 10**
- a) What is cell differentiation?
  - b) What is totipotency and pleuropotency?
  - c) What is fate map?
  - d) What is yolk plug?
  - e) Differentiate epiboly and emboly.
  - f) Differentiate between syndesmochorial and endotheliochorial placenta.
  - g) What is transplantation?
  - h) What is involution?

**Group B**

- 2. Answer any FOUR questions of the following: 4x5 = 20**
- a) Briefly describe the types of placenta in mammals. 5

(2)

- b) Write about the Acrosomal reaction. 5
- c) Schematically show the process of oogenesis. Give examples of telolecithal, megalecithal & oligolecithal eggs. 3+2
- d) Write down the role of Sertoli cells and Leydig cells in spermatogenesis.  $2\frac{1}{2} + 2\frac{1}{2}$
- e) Distinguish between specification and Determination in respect of commitment. 5
- f) Differentiate somatopleure and splanchnopleure. What are the functions of Allantois. 2+3

**Group C**

- 3. Answer any ONE questions of the following: 1x10 = 10**
- a) Write down the major events of development of eye in chick. What is morphallaxis? Describe the process of morphallaxis in Hydra. 5+1+4
- b) i) What is Nieuwkoop center? Mention its function. 2+2
- ii) What is primitive streak? Name the equivalent structure found in amphibian embryos. 2+1
- iii) What is competence in inductive event? Name some proteins secreted by organizer. 1+2
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