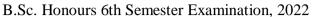


WEST BENGAL STATE UNIVERSITY





ZOOACOR13T-ZOOLOGY (CC13)

DEVELOPMENTAL BIOLOGY

Time Allotted: 2 Hours Full Marks: 40

The figures in the margin indicate full marks.

Candidates should answer in their own words and adhere to the word limit as practicable.

All symbols are of usual significance.

1. Answer any *eight* questions from the following:

 $2 \times 8 = 16$

- (a) Differentiate between holoblastic and meroblastic cleavage.
- (b) State the function of Resact.
- (c) What is the effect of Thalidomide on the embryo?
- (d) What are radial and spiral cleavage? Give examples.
- (e) What do you mean by Primary Organizer?
- (f) What is Acrosome reaction?
- (g) How epiblast and hypoblast are formed in avian gastrulation?
- (h) What is Trophoblast?
- (i) Why amniocentesis is done during pregnancy?
- (j) What do you mean by haemo-chorial and endothelio-chorial placenta?
- (k) What is the function of Zona Pellucida?
- (1) What is Mid Blastula Transition (MBT)?
- 2. Answer any *three* questions from the following:

 $3 \times 3 = 9$

- (a) What is the fast block of Polyspermy? Explain.
- (b) What do you mean by fertilization cone? How is it formed?
- (c) State the prerequisite of IVF.
- (d) Write short notes on: (any one)
 - (i) Cortical reaction
 - (ii) Capacitation
 - (iii) Egg-Sperm recognition.
- (e) Classify placenta on the basis of maternal and fetal attachment.

CBCS/B.Sc./Hons./6th Sem./ZOOACOR13T/2022

3. Answer any *three* questions from the following:

 $5 \times 3 = 15$

- (a) Differentiate between Spermatogenesis and Oogenesis.
- (b) Briefly describe the steps of neurulation and formation of brain with suitable diagram.
- (c) Briefly describe an experiment showing inducing power of early and late gastrula in newt embryo.
- (d) Describe spermiogenesis. What are the functions of Sertoli Cells?

2+3

- (e) Briefly describe (with suitable diagram) the process of primitive streak formation in chick.
 - **N.B.:** Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.

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