



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 6th Semester Examination, 2022

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: 2×8 = 16
- Differentiate between holoblastic and meroblastic cleavage.
 - State the function of Resact.
 - What is the effect of Thalidomide on the embryo?
 - What are radial and spiral cleavage? Give examples.
 - What do you mean by Primary Organizer?
 - What is Acrosome reaction?
 - How epiblast and hypoblast are formed in avian gastrulation?
 - What is Trophoblast?
 - Why amniocentesis is done during pregnancy?
 - What do you mean by haemo-chorial and endothelio-chorial placenta?
 - What is the function of Zona Pellucida?
 - What is Mid Blastula Transition (MBT)?
2. Answer any **three** questions from the following: 3×3 = 9
- What is the fast block of Polyspermy? Explain.
 - What do you mean by fertilization cone? How is it formed?
 - State the prerequisite of IVF.
 - Write short notes on: (any **one**)
 - Cortical reaction
 - Capacitation
 - Egg-Sperm recognition.
 - Classify placenta on the basis of maternal and fetal attachment.

3. Answer any *three* questions from the following: 5×3 = 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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