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(Pages : 2)

Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2023

(CBCSS—UG)

Zoology

ZOL 6B 11 T—REPRODUCTIVE AND DEVELOPMENTAL BIOLOGY

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

Section A

I. Short Answer Questions. Each question carries 2 marks :

- 1 Define fate map. Draw the fate map of frog blastula.
- 2 Comment on homeotic genes.
- 3 Give a short note on interstitial implantation.
- 4 What is PNDT Act ?
- 5 What is epigenetic theory ?
- 6 Explain fertilizin-antifertilizin reaction.
- 7 Brief the functions of placenta ?
- 8 Comment on the significance of primitive streak.
- 9 Define Epiboly.
- 10 Briefly explain amniocentesis.
- 11 Explain natural contraceptive methods.
- 12 Comment on the factors inducing artificial parthenogenesis ?

(Ceiling 20 marks)

Turn over



Section B

II. Paragraph Questions. Each question carries 5 marks :

- 13 With suitable examples, describe different types of blastulae.
- 14 With the help of a neat labeled diagram, explain the structure of human sperm, note on acrosome reaction.
- 15 Explain various Assisted Reproductive Technologies.
- 16 What is Parthenogenesis ? Differentiate arrhenotoky and thelytoky.
- 17 Describe Spemann's constriction experiments on amphibian embryos.
- 18 Briefly explain controlled gene expression during development.
- 19 Give a brief description on the hormonal control of amphibian metamorphosis.

(Ceiling 30)

Section C

III. Essay Questions. Answer any *one* question

- 20 Write an essay on extra embryonic membranes in chick.
- 21 Explain different types of egg membranes with example. Add a note on determinate and indeterminate eggs.

(1 × 10 = 10)