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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

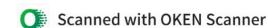
Maximum: 60 Marks

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

(Ceiling 30

Section (

- 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 determin indeterminate eggs.

 $(1 \times 10 = 10)$