

**18U618**

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Name: .....

Reg. No.....

**SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2021**

(CUCBCSS-UG)

(Regular/Supplementary/Improvement)

**CC15U ZO6 B13 - REPRODUCTIVE BIOLOGY, DEVELOPMENTAL BIOLOGY  
AND TERATOLOGY**

(Zoology - Core Course)

(2015 Admission onwards)

Time: Three Hours

Maximum: 80 Marks

A. Answer *all* questions. Each question carries 1 mark.

1. What are vital stains?
2. What are homeotic genes?
3. What is neurenteric canal?
4. What is semelparity and iteroparity?
5. What are sertoli cells? What is its function?
6. What is pluripotency?
7. What is meant by cryopreservation?
8. What is graffian follicle?
9. What is cell lineage?
10. What is IVF?

**(10 × 1 = 10 Marks)**

B. Answer any *ten* questions. Each question carries 2 marks.

11. What is blastocyst? With a suitable diagram explain the structure of a blastocyst.
12. What is corpus luteum? What is its function?
13. Distinguish between mosaic eggs and regulative eggs.
14. Explain any two invasive prenatal diagnostic techniques.
15. Distinguish between area vasculosa and area vitellina.
16. What is grey crescent? What is its significance?
17. What is interstitial implantation? Give an example.
18. Differentiate between radial and spiral cleavage.
19. What is oogenesis? What is its significance?
20. Explain the teratogenic effects of nicotine and alcohol
21. Explain the theories of epigenesis and preformation.
22. Distinguish between periblastula and discoblastula.

**(10 × 2 = 20 Marks)**

C. Answer any *five* questions. Each question carries 6 marks.

23. What are stem cells? Give their significance and applications.
24. With suitable diagram explain the neurulation in frog.
25. Differentiate between arrhenotoky and thelytoky.
26. Write on gestation, parturition and lactation in human beings.
27. Explain Spemann's constriction experiment to explain the potency of nuclei and grey crescent
28. With suitable diagram explain the salient features of chick embryo at primitive streak stage.
29. What is an organizer? With suitable example explain the types of organizers.
30. Discuss the various technologies used to solve infertility problems.

**(5 × 6 = 30 Marks)**

D. Write essays on any *two* of the following. Each question carries **10** marks.

31. Explain menstrual cycle and its hormonal control.
32. Explain the different types of cleavages based on:  
a) planes                      b) pattern              c) amount of yolk              d) development.
33. With suitable diagrams explain the development of brain in frog.
34. Explain the gradient experiment in sea urchin eggs.

**(2 × 10 = 20 Marks)**

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