Reg. No…….. Name…… **19U608**

B. Sc. DEGREE END SEMESTER EXAMINATIONS - MARCH 2019

SEMESTER **– 6: ZOOLOGY (CORE COURSE)**

COURSE: **15U6CRZOO09 : REPRODUCTIVE AND DEVELOPMENTAL BIOLOGY**

(Common for Regular - 2016 Admission / Supplementary-Improvement 2015 Admission)

Time: Three Hours Max. Marks: 60

Part A

Answer ***all*** questions of the following.

1. Distinguish between Totipotency and Pleuripotency.
2. Name two pathogens that cause teratogenesis.
3. Define IUGR, mention its consequences.
4. Name an organism in which spiral cleavage takes place in eggs.
5. Define fertilization, mention its significance.
6. Define gastrulation, mention its two characteristic features.
7. Give examples of cledoic eggs, mention its significance.
8. What is Germplasm theory? (1 x 8 = 8)

Part B

Answer any **Six** of the following

9. Explain how polyspermy is prevented during fertilization.
10. Describe the influence of yolk on cleavage.
11. Mention the significance of Amniocentesis.
12. Define a Fate map with an example.
13. Distinguish between Arrhenotoky and Thelytoky with examples.
14. Briefly explain metamorphosis in frog.
15. Explain the structure of Graafian follicle.
16. Briefly explain the role of Organizer with an example. (2 x 6 = 12)

Part C

Answer any **Four** of the following

17. Explain Oogenesis, mention its significance.
18. Explain the procedure of Embryo Transfer Technology, mention its significance.
19. Mention brief account of 24 hour chick embryo.
20. Define stem cells. Which are the different types of stem cells.
21. Describe the development of the eye in frog.
22. What is regeneration? Write a note on its types and mode of its mechanism. (4 x 5 = 20)

Part D

Answer any **Two** of the following

23. Describe the embryologic development of Frog up to neurulation stage.
24. Classify placenta based on nature of contact, mode of implantation, histological intimacy of foetal and maternal tissue. Mention the functions of placenta.
25. Explain teratogenesis caused by structural and functional defects of chromosomes, environmental and pathogenic factors.
26. Elucidate the history of Experimental embryology emphasizing Spemann's constriction experiments, and experiments on induction (10 x 2 = 20)

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