

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2011 – 2012 & thereafter)

SUBJECT CODE: 11ZL/MC/DB64

B. Sc. DEGREE EXAMINATION APRIL 2017
BRANCH VIA. ADVANCED ZOOLOGY & BIOTECHNOLOGY
SIXTH SEMESTER

COURSE : MAJOR CORE
PAPER : DEVELOPMENTAL BIOLOGY
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL QUESTIONS :

(10 X 3 = 30)

1. Explain briefly about Preformation theory.
2. Define regeneration.
3. Explain the term polarity.
4. Comment on stem cells.
5. What do you understand by cell lineage? Explain briefly.
6. Define Blastulation.
7. Mention any three function of Placenta.
8. Distinguish between Isolecithal and Telolecithal eggs giving examples.
9. Write a brief note on competence.
10. Explain the term organizer.

SECTION – B

ANSWER ANY FIVE QUESTIONS :

(5 X 6 = 30)

11. Discuss the morphological and physiological changes involved in the metamorphosis of tadpole of frog.
12. Describe the morphology of a sperm with neat labeled diagram.
13. Explain the various cleavage patterns of eggs in the types of chordates studied by you.
14. Describe the development of ear in frog.
15. Define nuclear transplantation and describe the mechanism of the same.
16. Write a short note on fate map.
17. Discuss about the artificial insemination in human.

SECTION – C

ANSWER ANY TWO QUESTIONS :

(2 X 20 = 40)

18. What is parthenogenesis? Write a note on natural parthenogenesis.
19. With suitable diagrams describe the process of Gastrulation in frog.
20. Give an illustrated account of development of heart in frog.
21. Elaborate on test tube babies. Discuss the ethical issues relating to the same.
