

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 2016
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
 - a) Microlecithal
 - b) Metamorphosis
 - c) Blastopore
2. Comment on the following:
 - a) Amnion
 - b) Epigenesis
 - c) Organogenesis
3. Expand the following
 - a) ET
 - b) AI
 - c) IUD
4. Draw a neat labeled diagram of a section of Blastula.
5. Match the following:

a)	Vitellogenesis	-	stimulates ovary
b)	Leutenizing Hormone	-	Nurse cells for sperms
c)	Sertoli cells	-	Louise Joy Brown
d)	Rate of cleavage	-	involves mesoderm and endoderm
e)	Neurulation	-	influenced by the yolk
f)	First test tube child	-	in the egg
6. Highlight the significance of fate maps.
7. Comment on test tube babies.
8. What is Morphogenetic Movement?
9. Define Determinate and Indeterminate Cleavage
10. What is parthenogenesis? Comment on its significance.

SECTION – B

ANSWER ANY FIVE QUESTIONS :

(5 X 6 = 30)

11. Explain the process of metamorphosis in insects.
12. Describe spermatogenesis.
13. Define cleavage and add a note on the various types of cleavage.
14. Explain the development of ear in frog.
15. Explain the nuclear transplant experiments carried out in amphibians.
16. What is surrogacy? Add a note on the ethical and legal issues that are related to it.
17. What are stem cells? Explain the types and mention the applications of these cells.

SECTION – C

ANSWER ANY TWO QUESTIONS :

(2 X 20 = 40)

18. Write an essay on regeneration.
19. Define fertilization and what are the various aspects involved in the process.
20. Write an essay on the gastrulation in frog.
21. Discuss in detail the various types of placenta and its function.
