

STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2011 – 12)

SUBJECT CODE: 11ZL/ME/AT53

B.Sc. DEGREE EXAMINATION NOVEMBER 2013
BRANCH VI A – ADVANCED ZOOLOGY & BIOTECHNOLOGY
FIFTH SEMESTER

COURSE : MAJOR ELECTIVE
PAPER : ANIMAL TISSUE CULTURE TECHNIQUES
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION- A

ANSWER ALL QUESTIONS

(10x3=30)

1. Give the function of:

- a) Magnetic stirrer b) Autoclave c) Osmometer.

2. Distinguish between:

- a) Adherent & Suspension cultures.
b) Viable & Non viable cell.

3. Write a short note on the Storage area.

4. Define Serum –free media.

5. Give one example for:

- a) Serum b) Antibiotics c) Growth factor.

6. Draw a neat labeled diagram of Primary cell culture.

7. Comment on Inverted microscope.

8. What is a cell bank?

9. Illustrate Flow – laminar hood.

10. Write a note on the Culture of lymphocytes from blood.

SECTION- B

ANSWER ANY FIVE QUESTIONS

(5x6=30)

11. What are the applications and limitations of tissue culture?

12. Give a short note on sterile tissue culture room.

13. Discuss briefly on the glass wares used in tissue culture.

14. Explain the methods for testing cell viability.

15. Write a short note on primary explant culture.
16. Elaborate on PHA stimulation of lymphocytes.
17. Give a brief account on primary cell culture techniques.

SECTION-C

ANSWER ANY TWO QUESTIONS

(2x20=40)

18. Discuss in detail the designing of the new culture lab for animal tissue culture.
19. Elaborate on the equipments needed for a tissue culture laboratory.
20. Give a detail account on the process of cryopreservation of cells.
21. Give an account on the preparation of tissue culture media. Add a note on chick embryo fibroblast culture.
