



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – ZOOLOGY

SECOND SEMESTER – APRIL 2014

ZO 2958 - BIOPHYSICS & RADIATION BIOLOGY

Date : 05/04/2014

Dept. No.

Max. : 100 Marks

Time : 09:00-12:00

PART - A

I Answer **ALL** the questions. **2 x 10 = 20 Marks**

1. Differentiate SEM from TEM.
2. Explain viscosity and surface tension.
3. Define refractive index.
4. Comment on zwitter ion effect.
5. What is meant by polyploidy?
6. Write note on Gibb's free energy.
7. What is haemolysis?
8. Comment on colchicine.
9. Mention about MRI scan.
10. Differentiate Osmosis from diffusion.

PART – B

II Answer any **FOUR** of the following **4 x 10 = 40 Marks**

11. Explain mutation and its significance.
12. What are the uses of X-rays?
13. Give an account on laser and its applications.
14. Write notes on autoradiography.
15. Write an account on TLC.
16. Describe GM counter.

PART – C

III Answer any **TWO** of the following **2 x 20 = 40 Marks**

17. Write an account on SDS PAGE.
18. Explain NMR and its application.
19. Write an essay on microscopy and its significance in Biology.
20. Discuss cancer biology.
