



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – ZOOLOGY

SECOND SEMESTER – APRIL 2015

ZO 2958 - BIOPHYSICS & RADIATION BIOLOGY

Date : 23/04/2015

Dept. No.

Max. : 100 Marks

Time : 01:00-04:00

Part-A

Answer ALL the questions

(10×2=20 Marks)

1. What is polyploidy ?
2. Differentiate viscosity from surface tension.
3. Define refractive index.
4. Differentiate osmosis from diffusion.
5. Comment on colchicine.
6. What is Gibb's free energy?
7. What is haemolysis?
8. Differentiate SEM from TEM.
9. Comment on Zwitter ion effect.
10. What is MRI scan?

Part-B

Answer any FOUR questions

(4×10=40 Marks)

11. Explain LASER and its applications.
12. Write notes on NMR and its significance.
13. Give an account of GM counter.
14. Explain crystallography.
15. What are the uses of X-rays?
16. Write notes on laws of osmosis.

Part-C

Answer any TWO questions

(2×20=40 Marks)

17. Give an account on electrophoresis.
18. Write an essay on radiation and cancer.
19. Explain TLC and HPLC.
20. Write an essay on microscopy and its significance in Biology.
