



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**M.Sc. DEGREE EXAMINATION - ZOOLOGY**

**SECOND SEMESTER – APRIL 2013**

**ZO 2817 - MOLECULAR CELL BIOLOGY**

Date : 26/04/2013

Dept. No.

Max. : 100 Marks

Time : 9:00 - 12:00

**Part A**

**Answer All the questions**

**(10×2=20 Marks)**

1. What is immortalization?
2. List out the different phases of karyokinesis.
3. Comment on DNA polymerase.
4. Differentiate therapeutic cloning from reproductive cloning.
5. Comment on endocrine signaling.
6. What are structural genes?
7. Define sex linked inheritance.
8. Explain canavan disease.
9. Define metastasis.
10. Comment on carcinoma.

**Part B**

**Answer any FOUR questions**

**(4×10=40 Marks)**

11. Explain the method and applications of DNA fingerprinting.
12. Enlist and explain the factors relating to infectious agents and host.
13. Write notes on signal induction.
14. Give an account on genetics of ageing.
15. How the P53 gene acts as a tumor suppressor gene?
16. Explain human cancers, nature and mutational nature of cancer.

**Part C**

**Answer any TWO questions**

**(2×20=40 Marks)**

17. Give an account on the life cycle of Rous sarcoma virus.
18. Describe DNA replication and its enzymes.
19. Write an essay on genetic code.
20. Discuss operon hypothesis.

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