 LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

**M.Sc.** DEGREE EXAMINATION – **ADV**. **ZOOLOGY & BIO TECH.**

FOURTH SEMESTER – APRIL 2011

# ZO 4811 - BIOTECHNOLOGY

Date : 09-04-2011 Dept. No. Max. : 100 Marks

Time : 9:00 - 12:00

**PART – A ( 10 x2=20)**

**ANSWER ALL IN A FEW SENTENCES**

1. Distinguish southern blotting and northern blotting techniques.

2. Name any fouir restriction enzymes.

3. Illustrate Ti plasmid.

4. Differentiate genomic DNA froncomplimentary DNA.

5. State the principle involved in the production of polyclonal antibodies.

6.What are the limitations of GMOs?

7.What are xenobiotics ? Mention their importance.

8. What are the demerits of SCP ?

9. What are “Pharm animals” ?

10 Expand : a) RFLP b) ICSI

**PART – B ( 4 x 10 = 40)**

**BRIEFLY ANSWER ANY FOUR**

11. What are the steps involved in transformation process ?

12. Describe a method of DNA sequencing.

13.Critically analyse the rationale of IPP and IPR.

14. Propose a protocol for cytotoxicity assaying of culture cells/organs.

15. Examine the principle and applications of microarray technology.

16. How do you relate organic farming and biofertilizers input ?

**PART – C ( 2 x20=40)**

**ANSWER ANY TWO IN DETAIL**

17. Elucidate any four gene cloning vectors with a note on their applications.

18. Examine enzyme technology in terms of production, purification and

applications.

19 How do you produce transgenic animals ? Discuss its merits and demerits.

20.Comment on: a) IVF b) Gene therapy c) Microinjection d) DNA computing.

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