**Reg. No. \_\_\_\_\_\_\_\_**

**Karunya University**

**(Karunya Institute of Technology and Sciences)**

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

**Supplementary Examination - June 2011**

**Subject Title: MOLECULAR BIOLOGY AND GENETIC ENGINEERING Time: 3 hours**

**Subject Code: 09BI207 Maximum Marks: 100**

#### **Answer ALL questions**

**PART – A (10 x 1 = 10 MARKS)**

1. Define conjugation.

2. What is genome?

3. What is replication?

4. What are inhibitors?

5. Define genetic code.

6. What is operon?

7. What do you mean by vectors?

8. Expand RAPD.

9. What is an antibody?

10. What are stem cells?

**PART – B (5 x 3 = 15 MARKS)**

11. What is transformation?

12. What is meant by RNA editing?

13. Define regulator gene.

14. How to construct cDNA libraries?

15. Write short notes on gene therapy.

**PART – C (5 x 15 = 75 MARKS)**

16. DNA is the genetic material. How to prove?

(OR)

17. Write an essay on Eukaryotic genome organization.

18. Give an account on post-transcriptional modification.

(OR)

19. Explain in detail the process of replication in Prokaryotes.

20. Explain about process of translation in Prokaryotes.

(OR)

21. Write detailed notes on regulation of gene expression.

22. Write an account on site directed mutagenesis and Restriction mapping.

(OR)

23. Give an account on principles and working mechanism of PCR.

24. Write an essay on in vitro fertilization with suitable diagrams.

(OR)

25. How is cloning useful in plant kingdom?