**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: BASIC AUTOMOBILE ENGINEERING Time: 3 hours**

**Subject Code: 09ME254 Maximum Marks: 100**

#### **Answer ALL questions**

**PART – A (10 x 1 = 10 MARKS)**

1. Classify the vehicle according to their drive.

2. What is the function of Gear box?

3. Sketch the PV diagram of Diesel cycle.

4. List any two properties of fuels.

5. Define scavenging.

6. Define firing order.

7. What is the function of the Carburetor?

8. List out two components in a Lubrication system.

9. Which company in India has Auto Clutch in bike? Name the model.

10. Expand ARAI.

**PART – B (5 x 3 = 15 MARKS)**

11. Sketch the Steering linkage used in automobile.

12. State the First law of thermodynamics.

13. Write any four differences between Petrol and Diesel Engine.

14. Explain about MPFI.

15. Explain about Turbo charger.

**PART – C (5 x 15 = 75 MARKS)**

16. Explain 4 x 2 chassis layout of an automobile and explain each component in detail.

(OR)

17. Describe the Drum and Disc brake system with neat sketch.

18. Explain Otto cycle with PV diagram and the expressions.

(OR)

19. Explain the air requirement of combustion.

20. Explain the working of a two stroke petrol engine with a neat sketch.

(OR)

21. Discuss the difference between Two Stroke and Four Stroke Engine.

22. Explain the CRDI with neat diagram.

(OR)

23. Explain the Automobile cooling system in detail.

24. Discuss the recent developments in Indian automobiles.

(OR)

25. Compare any two cars from leading automobile manufacturers in India and discuss their features.