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Total No. of Pages :02

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**B.Tech.(ME) (2011 Onwards E-II) (Sem.-7,8)****I.C.ENGINES****Subject Code :DE/ME-1.1****M.Code :71997****Time : 3 Hrs.****Max. Marks : 60****INSTRUCTION TO CANDIDATES :**

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and a student has to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and a student has to attempt any **TWO** questions.

**SECTION-A****1. Answer briefly :**

- a. Draw diagram of air standard cycle.
- b. Write a difference between two stroke and four stroke engine.
- c. Write two differences between SI and CI engines.
- d. Define calorific value of fuel.
- e. What is air fuel mixture?
- f. What is air filter?
- g. Define knocking
- h. What is supercharging?
- i. Define engine blow.
- j. What is the function of turbocharger?

### SECTION-B

2. Explain the properties of air fuel mixture.
3. What is carburetor? And write down basic requirements from it.
4. Explain the difference between actual and fuel air cycle.
5. How a turbocharger works? Explain.
6. Explain methods used to determine minimum air quantity supplied to gases.

### SECTION-C

7. Explain thermodynamics analysis of sterling, Ericson, Dual and otto cycle.
8. Explain different types of fuel injection systems.
9. Explain all the devices used to meet the requirements of an ideal carburetor.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**