

**DIPLOMA IN MECHANICAL ENGINEERING
(DME)**

00486 Term-End Examination

December, 2014

BME-061 : AUTOMOBILE ENGINEERING

Time : 2 hours

Maximum Marks : 70

Note : Answer any **five** questions. All questions carry equal marks. Use of scientific calculator is permitted.

1. (a) List the various components mounted on a truck . Describe the functions of any two.
(b) Discuss the main differences between two stroke and four stroke engines. 7+7

2. (a) Describe the working of four stroke, single cylinder diesel engine.
(b) Explain the applications of two stroke and four stroke engines with examples. 7+7

3. (a) What is ignition system ? What are the different types of ignition systems used in SI engines ?
(b) Describe the functions and working of ignition coil. 7+7

4. (a) Explain how engine performance is affected by change in ignition timing and air-fuel ratio in SI engines.
- (b) Explain the principle of clutch. Describe the working of single plate clutch. 7+7
5. (a) Explain the construction and working of mechanical brakes.
- (b) What are the functions of suspension system of an automobile? 7+7
6. (a) What is the function of a shock absorber? How does a hydraulic shock absorber work?
- (b) What are the various types of tyres? List the advantages of tubeless tyres. 7+7
7. (a) What do you mean by gear train? List the different types of gear trains.
- (b) Explain the working of 'Ackerman' steering gear mechanism. 7+7
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