

**DIPLOMA IN MECHANICAL ENGINEERING
(DME)**

Term-End Examination

June, 2015

00564

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) Explain briefly the various parts of an automobile with the help of simple sketches.
- (b) Describe the working of steering system mechanism. 7+7
2. (a) Explain the working of a four-stroke petrol engine.
- (b) Compare the relative advantages and disadvantages of four-stroke and two-stroke cycle engines. 7+7
3. (a) Draw a neat sketch of a four-stroke engine and indicate all the components.
- (b) Describe the specifications of automobile engine, with an example of any automobile. 7+7

4. (a) What is meant by the term 'ignition' ? How is it related with combustion ?
- (b) State the advantages and disadvantages of a battery ignition system. 7+7
5. (a) What do you mean by gear train ? List the different types of gear trains.
- (b) Differentiate between simple gear train and compound gear train. 7+7
6. (a) List the different types of universal joints. Describe the construction of cross type joint.
- (b) List the various types of rear axles. Describe the working of semi-floating rear axle. 7+7
7. (a) Draw a line diagram of a steering linkage for independent front suspension type vehicle.
- (b) Name the different types of steering gear boxes. Describe the worm type steering gear box. 7+7
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