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## 24354

# B. Tech 6th Semester (ME)

## Examination – May, 2016

## **AUTOMOBILE ENGINEERING**

Paper: ME-302 F

Time: Three Hours]

[ Maximum Marks: 100

Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note: Question No. 1 is compulsory. Students have to attempt 5 questions in total at least one question from each Section.

- 1. (a) What are automobiles? Classify them. 4 ×
  - (b) What are springs? Mention its types.
  - (c) Define gears. Explain its uses.
  - (d) Explain factors that influencing side comfort.

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#### SECTION - A

- 2. What are the components of an automobile? Mention and explain requirements of an automobile body.
- **3.** Explain clutch along with its types in detail. 20

### SECTION - B

- **4.** What is transmission system? Explain power transmission system.
- 5. What is the principle of front whee drive? Explain. 20

### SECTION - C

- **6.** (a) What is suspension system? Explain in detail with neat and clean diagram.
  - (b) Explain constructional details and characteristics of leaf springs.10
- 7. What is wheel geometry and wheel alignment? Explain with specified terms with neat diagram. 20

#### SECTION - D

8. What are brakes? Explain its types.

20

**9.** What is Emission control system ? Explain construction & operation of positive crankcase ventilation.

(3)