

Roll No. ....

**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.  $4 \times 5$
- (b) What are springs ? Mention its types.
- (c) Define gears. Explain its uses.
- (d) Explain factors that influencing side comfort.

## SECTION - A

2. What are the components of an automobile ?  
Mention and explain requirements of an automobile  
body. 20

3. Explain clutch along with its types in detail. 20

## SECTION - B

4. What is transmission system ? Explain power  
transmission system. 20

5. What is the principle of front wheel drive ? Explain. 20

## SECTION - C

6. (a) What is suspension system ? Explain in detail  
with neat and clean diagram. 10

(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

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## SECTION - D

8. What are brakes ? Explain its types. 20

9. What is Emission control system ? Explain  
construction & operation of positive crankcase  
ventilation. 20

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