



C09-M-606B

3785

**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2016
DME—SIXTH SEMESTER EXAMINATION**

AUTOMOBILE ENGINEERING

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answer should be brief and straight to the point and shall not exceed *three* simple sentences.

1. What is the function of the frame?
2. What are the materials used for the frame?
3. List out any three functions of gearbox.
4. What are the various resistances encountered by the vehicle? Explain them briefly.
5. What are the requirements of clutch?
6. What are the various components of clutch?
7. Mention any three functions of differential.
8. What is meant by Toe-in and Toe-out?

9. What is meant by wheel skidding?
10. What are the various factors to be considered for suspension system?

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. What are the various components of an automobile? Explain them briefly.
12. Explain the working of sliding mesh gearbox with a neat line diagram.
13. (a) Write the classification of clutches.
(b) What are the advantages and disadvantages of single-plate clutch?
14. Explain the working of constant velocity type universal joint.
15. List out the various types of stub axles and explain them with neat diagrams.
16. Explain the working of air brakes with a line diagram.
17. Explain the construction of leaf springs with a neat sketch.
18. (a) State the differences between semi floating and fully floating rear axles.
(b) What are the various alignment factors of steering geometry?

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