



C09-M-606 B

3785

BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2014
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) Answers should be brief and straight to the point and shall not exceed six simple sentences.

1. What are the advantages and disadvantages of using frameless construction?
2. What are the functions of the frame?
3. List out any six requirements of a clutch.
4. List out different types of gearbox.
5. What is the working principle of friction clutch?
6. State the functions of transmission system in an automobile.
7. What are various loads acting on the rear axle?
8. What do you mean by understeer and oversteer?

- * 9. What are the factors influencing the braking effect?
10. List out the main objectives of 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. (a) Explain the construction of frame. 5
(b) What are the defects in frame? 5
12. Explain the working of hydraulically-operated single-plate clutch with line diagram. 5+5=10
13. Explain the working of constant-mesh gearbox with neat sketch. 5+5=10
14. Explain clearly (a) semifloating axle, and (b) three-quarter floating axle with sketches. 5+5=10
15. What is meant by steering? Explain the following terms : 10
(a) Camber
(b) Castor
(c) Toe-in and toe-out
16. Explain the working of mechanical brakes with neat sketch. 5+5=10
17. Explain the working of air suspension system with sketch. 5+5=10
- * 18. Explain the following : 5+5=10
(a) Differential
(b) Front wheel assembly
