



C09-M-606 B

3785

BOARD DIPLOMA EXAMINATION, (C-09)  
SEPTEMBER/OCTOBER - 2020  
DME—SIXTH SEMESTER EXAMINATION  
AUTOMOBILE ENGINEERING

Time : 3 hours ]

[ Total Marks : 80

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**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 *five* simple sentences.

1. List out various loads acting on the frame.
2. State the advantages and disadvantages of frameless construction.
3. What is the function of clutch?
4. List out the various types of clutches.
5. What are the various resistances encountered by the vehicle during motion?
6. List out the gear selector mechanisms of an automobile.
7. What is the necessity of universal joint in automobile transmission system?

- \* 8. What are the main objectives of the suspension system?
9. Explain the terms 'understeer' and 'oversteer'.
10. List out the various types of brakes.

**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. List out the various components of an automobile and explain them briefly.
12. Explain the construction and working of single plate clutch with neat sketch.
13. Explain the working of constant mesh gearbox with neat sketch.
14. Explain the construction and working of differential with neat sketch.
15. (a) What do you understand by the term 'self-righting torque'?
- (b) What are the various types of rear axle? Explain any one of them.
16. Explain the working of telescopic type shock absorber with neat sketch.

\* 17. Explain the various alignment factors of steering geometry.

18. Explain the working of air brakes with neat sketch.

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