



C14-M-606

**4762**

**BOARD DIPLOMA EXAMINATION, (C-14)  
MARCH/APRIL—2018  
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 *five* simple sentences.

1. List out different types of materials used for frame.
2. What are the functions of a clutch? Mention different types of clutches.
3. State the requirements of effective functioning of a clutch.
4. What are the functions of transmission system of an automobile?
5. List out different types of selector mechanisms.
6. What are the various loads acting on the frame of an automobile?
7. What are the different types of suspension springs?

/4762

1

[ *Contd...*

[WWW.MANARESULTS.CO.IN](http://WWW.MANARESULTS.CO.IN)

8. What are the functions of propeller shaft in an automobile?
9. What are the various factors influencing the wheel alignment?
10. List out various requirements 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. Explain different types of chassis construction of an automobile.
12. Explain the working principle of synchromesh gearbox with a neat diagram.
13. Explain the working principle of multiplate clutch with a neat diagram.
14. What are the different types of rear axles? Explain any one of them.
15. Explain the working principle of air suspension system with a neat diagram.
16. Explain different types of stub axles of an automobile.
17. Explain the working principle of mechanical brakes with a neat diagram. Also mention the advantages and disadvantages.
18. (a) What are the functions of front axle of an automobile?  
(b) Explain semi-floating axles with a neat sketch.

★ ★ ★