



C09-M-606 B

3785

BOARD DIPLOMA EXAMINATION, (C-09)  
APRIL/MAY—2015  
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. What are the defects in frames?
2. List out the types of loads sustained by the frames.
3. Explain the principle of operation of the clutch.
4. List out the different types of clutches.
5. Write the function of gearbox.
6. What are the resistances encountered by the vehicle?
7. Explain the function of propeller shaft.
8. What are the various factors to be considered for suspension system?

\* 9. Explain the terms understeer and oversteer.

10. Write the classification 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 the different types of chassis construction.

12. Explain the construction details and working of multiplate clutch.

13. Explain the working of the sliding mesh gearbox.

14. (a) Explain the functioning of propeller shaft.

(b) What are the factors influencing wheel alignment?

15. Explain the different types of suspension springs with neat sketch.

16. State the principle and working of Ackerman steering mechanism with neat diagram.

17. Explain the different methods of supporting rear axle shafts with neat sketch.

\* 18. Draw the schematic diagram showing the layout of complete air pressure system of brakes and explain the working of its main units in detail.

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