



C14-M-606

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BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—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 various types of chassis construction.
2. What are the differences between single-plate clutch and multiplate clutch?
3. What are the functions of a clutch?
4. What is meant by tractive resistance of a moving vehicle?
5. Write different types of gearbox.
6. List out various loads acting on a frame of an automobile.
7. List out the main components in air suspension system.

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8. What is the function of universal joint? Mention different types of universal joint.
9. Write different types of stub axle.
10. Explain the transfer of weight during braking operation.

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 functions of various components of chassis of an automobile.
12. Explain the working principle of sliding mesh gearbox with a neat diagram.
13. Explain the working principle of hydraulically operated clutch with a neat sketch.
14. Explain the working principle of differential in an automobile with a neat diagram.
15. What are different types of suspension spring? Explain the construction of leaf spring.
- * 16. Explain about Ackerman steering mechanism.
17. Explain the working principle of hydraulically operated four-wheel brake system with a neat diagram.
18. (a) What are the factors affecting steering system?
(b) Differentiate between semi-floating and fully-floating rear axles.
