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C09-M-606B

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BOARD DIPLOMA EXAMINATION, (C-09)

OCT/NOV—2013

DME—SIXTH SEMESTER EXAMINATION

AUTOMOBILE ENGINEERING

Time : 3 hours]

[Total Marks : 80

PART—A

Instructions : (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answer should be brief and straight to the point and shall not exceed *six* simple sentences.

1. What are the materials used for frame?
2. List out the various auxiliaries of an automobile.
3. State the functions of a transmission system.
4. List out the various types of gear selector mechanisms.
5. State the requirements of a clutch.
6. State the advantages of a multi-plate clutch over single-plate clutch. Mention their applications.
7. What is a universal joint? Classify them.
8. What are the various factors to be considered for suspension system?
9. Define 'orrect steering angle'.
10. Mention any six components of air brake.

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PART—B

- 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 about conventional chasis construction and frameless construction.
12. Describe the working principle of constant mesh gearbox with line diagram.
13. Explain the working principle of hydraulic clutch with neat diagram.
14. Explain the functions and operation of a differential in an automobile.
15. (a) Explain with neat sketch the fully floating rear axle.
(b) What do you meant by oversteering and understeering?
16. Explain the construction and working of a telescopic type of shock absorber.
17. Describe the front wheel and stub axle assembly with a neat diagram.
18. Explain with the help of a neat sketch the working of air brake.
