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C09-M-606B

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BOARD DIPLOMA EXAMINATION, (C-09)

OCT/NOV—2018

DME—SIXTH SEMESTER EXAMINATION

AUTOMOBILES 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. Mention any four common defects in frames.
2. Mention any six components in automobile transmission system.
3. Write any three requirements of a clutch.
4. Write the working principle of friction clutch.
5. Write any three advantages and disadvantages of single-plate clutch.
6. List out various types of gearbox.
7. What is the function of the propeller shaft?
8. What are the factors which influence wheel alignment?

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9. What are the main objectives of the suspension system?
10. Write any three requirements of good braking system.

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) The answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Define the term chassis. What are various types of chassis? Draw the neat sketch of automobile transmission system.
12. Explain the construction and working principle of single-plate clutch.
13. Explain the working of telescopic suspension system.
14. Explain the working principle of sliding mesh gear box with a neat diagram.
15. (a) What are various resistances encountered by the vehicle. Explain them briefly.
- (b) What are various alignment factors of steering geometry? Explain them.
16. List out various types of rear axles used in automobiles and explain any two of them with neat sketches.
17. Draw the neat layout of steering linkage and explain the linkage clearly.
18. (a) What are the advantages and disadvantages of hydraulic braking system?
- (b) Explain the term wheel skidding and also write any three techniques to prevent wheel skidding.
