

## 4762

## BOARD DIPLOMA EXAMINATION, (C-14) JUNE—2019

## DME—SIXTH SEMESTER EXAMINATION

## AUTOMOBILE ENGINEERING

Time: 3 hours ] [ Total Marks: 80

PART—A

 $3 \times 10 = 30$ 

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 functions of a frame in automobile?
- **2.** List the functions of wheel and tyre.
- **3.** State the necessity of gear box in transmission system.
- 4. Why lubrication is essential in automobile transmission?
- **5.** State the necessity of clutch in transmission system.
- **6.** List the different types of clutches.
- 7. Mention any three functions of differential.
- **8.** List the various factors considered for suspension system.
- **9.** State the purpose of wheel alignment.
- 10. What is meant by wheel skidding?

**PART—B**  $10 \times 5 = 50$ 

**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 various types of chassis construction.
- **12.** Explain the components of automobile transmission system with line diagram.
- **13**. Explain the working of single plate clutch with a neat sketch.
- **14.** Explain the working of any one of the constant velocity type universal joint.
- **15.** Describe air suspension system with the help of line diagram.
- **16.** Explain the concept of under steering, over steering and correct steering of an automobile.
- 17. Explain the working of hydraulic braking system with line diagram.
- **18.** (a) Explain briefly about semi-floating axle.
  - (b) Explain the principle of power steering with line diagram.

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