

## 4756

# BOARD DIPLOMA EXAMINATION, (C-14) OCTOBER/NOVEMBER-2018 DME – SIXTH SEMESTER EXAMINATION

### **AUTOMOBILE ENGINEERING**

Time: 3 Hours ] [Total Marks: 80

### **PART-A**

3X10=30

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 five simple sentences.
- 1. What are the functions of a frame?
- 2. What are the defects in frame?
- 3. List out the types of gear boxes.
- 4. What do you mean by double declutching?
- 5. List out the clutch components.
- 6. What are the advantages of hydraulic clutch?
- 7. State the functions of rear axle.
- 8. What are the basic factors considered for suspension system?
- 9. State the functions of steering.
- 10. Mention the advantages of air brakes

#### **PART-B**

10X5=50

## Instructions:

- 1. Answer any **Five** questions.
- 2. Each question carries ten marks.
- 3. Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer
- 11. Draw the layout of automobile transmission system and label various units and explain about all the units.
- 12. Explain about the sliding mesh type of gear box with a neat line diagram.
- 13. Explain the working of multi-plate clutch with a neat sketch.
- 14. Explain the following with sketches:
  - (a) Semi-floating axle.
  - (b) Camber
- 15. Explain the working of differential in automobile with a neat sketch.
- 16. Describe the air suspension system with line diagram.
- 17. Explain about the Ackermann steering mechanism with a line diagram
- 18. Sketch and explain the construction and working of mechanical brake system.

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