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BOARD DIPLOMA EXAMINATION, (C-09) MARCH/APRIL—2017 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) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.
- 1. Explain various loads acting on the frame.
- 2. List out any three types of chassis.
- **3.** What is meant by the term 'transmission'?
- 4. Name any three types of gearboxes.
- 5. What are the functions of clutch?
- **6.** What is the principle of friction clutch?
- 7. What are the functions of propeller shaft?
- 8. Explain the terms 'understeer' and 'oversteer'.

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- 9. What are various factors influencing the braking effect?
- 10. What are the main objectives of suspension system?

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 different types of chassis construction.
- **12.** Explain the constructional details and working of single-plate clutch with a neat sketch.
- **13.** Explain the working of constant mesh gearbox with a neat line diagram.
- **14.** Explain clearly the working of differential with a neat line diagram.
- **15.** Draw a neat layout of steering linkage and explain the linkage clearly.
- **16.** (*a*) What are the advantages and disadvantages of hydraulic braking system?
 - (b) Explain wheel skidding.
- **17.** Explain the working of telescopic-type shock absorber.
- **18.** (*a*) What are various types of rear axles? Explain any one of them.
 - (b) List out the factors influencing the wheel alignment.

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