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3785

BOARD DIPLOMA EXAMINATION, (C-09)

MARCH /APRIL-2019

DME - SIXTH SEMESTER EXAMINATION

AUTOMOBILE ENGINEERING

Time: 3Hrs

Max. Marks: 80

PART-A

10x3=30M

Instructions: 1) Answer all the questions. Each question carries Three marks
2) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1) What is the function of an automobile frame?
- 2) List out advantages and disadvantages of frameless construction?
- 3) List out various types of clutches?
- 4) Write the principle of a friction clutch?
- 5) Write any three advantages of multiple plate clutch over single plate clutch.
- 6) What are the various resistances encountered by the vehicle?
- 7) What is universal joint necessary in automobile transmission system?
- 8) What are the various factors to be considered for suspension system?
- 9) What is meant by Toe-in and Toe-out?
- 10) List various factors influencing braking effect.

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PART-B

10x5=50M

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Instructions: 1) Answer any five questions Each question carries 10 marks
2) Answer should be comprehensive and the criterion for valuation is the content but not length of the Answer.

- 11) Explain various types of chassis construction.
- 12) Explain the construction and working principle of multi plate clutch.
- 13) Explain the working of telescopic type shock absorber.
- 14) Explain the working principle of synchromesh gear box with a neat line diagram?
- 15) (a) Explain semifloating rear axle with a neat diagram.
(b) Explain Ackermann steering gear mechanism.
- 16) Explain clearly the working principle of a differential with a neat line diagram.
- 17) List out the various types of stub axles and explain them with neat diagrams.
- 18) Explain the working principle of mechanical braking system of an automobile with a neat sketch.

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