

B.Tech. (Mechanical Engineering) 8th Semester

(G-Scheme) Examination, July-2022

Automobile Engineering

Paper- PEC-ME-420-G

Time allowed : 3 hours]

[Maximum marks : 75

Note : Question No.1 is compulsory. Attempt total five questions selecting one question from each unit. All Questions carry equal marks.

1. Compulsory question 6 parts. 2.5×6
- (a) Discuss different auto electric system and their function
 - (b) Classify the different types of brakes
 - (c) What are the different types of steering system
 - (d) What is the function of Clutch?
 - (e) What is the need of governor
 - (f) What is the need of method of synchronizing

Unit-I

2. Explain the following terms: 15
- (a) Chassis and chassis overhang
 - (b) Long wheel base and short wheel base chassis
 - (c) Full forward and semi forward chassis
 - (d) Wheel Base and wheel track

3. Explain the working of Centrifugal Clutch with neat sketch 15

Unit-II

4. Explain Construction and working of constant mesh gear box with neat sketch 15
5. What is the need of differential assembly? Discuss different types of differential and explain the construction and working of differential with neat sketch 15

Unit-III

6. What do you mean by power steering systems? Explain the principles of power steering and draw its construction layout 15
7. Explain Ackermann's steering mechanism and explain wheel lock and steering lock angles? 15

Unit-IV

8. Sketch and explain the construction and working of disc brake. 15
9. Draw the layout of an electrical system for any four wheeler involving as many details as possible. 15