

Code No: **R1642033**

R16

Set No. 1

IV B.Tech II Semester Advanced Supplementary Examinations, Aug/Sep - 2022

AUTOMOBILE ENGINEERING

(Mechanical Engineering)

Time: 3hours

Max. Marks: 70

Question paper consists of Part-A and Part-B

Answer ALL sub questions from Part-A

Answer any FOUR questions from Part-B

PART-A (14 Marks)

1. a) Difference between the rear wheel Drive & front wheel Drive. [2]
b) What is the need of clutch in the automobile? [3]
c) Define camber and castor. [2]
d) What are the components of lighting system in automobile? [3]
e) What are the main function of ABS? [2]
f) State the international pollution standards in brief. [2]

PART-B (4x14 = 56 Marks)

2. a) Write about the working of splash and pressure lubrication system. [7]
b) Explain with a simple sketch, how power is transmitted in a 4 wheel drive automobile. [7]
3. a) Explain the working of a single plate clutch with the help of a simple diagram. [7]
b) Explain the working of a Hotch kiss drive. [7]
4. a) Explain the working principle of Ackerman steering mechanism. [7]
b) Explain the operation of King-pin inclination for producing directional stability. [7]
5. a) Discuss the merits of independent front suspension system. [7]
b) Explain pneumatic & vacuum brakes with neat sketch. [7]
6. a) Explain about engine specifications with regard to no. of cylinders and arrangement. [7]
b) Write about suspension sensors, traction control and speed control. [7]
7. a) Explain the working of catalytic converter. [7]
b) Describe about service details of piston-connecting rod assembly? [7]

