



B.Tech III Year I Semester Supplementary Examinations, December 2021
AUTOMOBILE ENGINEERING
(Mechanical Engineering)

Maximum Marks: 70

Date:08.02.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What is the use of carburetor in S.I. engine?
- 2 How are automobiles classified?
- 3 What is the spark advance and retard mechanism?
- 4 Explain about the starting system of automobile.
- 5 What is the function of a stabilizer?
- 6 Why the shock absorbers are used in automobile.
- 7 What do you mean by master cylinder?
- 8 What is the basic function of emission control?
- 9 What are the advantages of using hydrogen as fuel?
- 10 Write three reasons for using monolith three-way catalytic converter.

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Describe the construction and working of a fuel feed pump used in a diesel engine. (10M)
OR
- 12 Describe the construction and working principle of a carter carburetor. (10M)
- 13 Sketch and explain different types of Ignition systems used in automotive engines. (10M)
OR
- 14 Describe the construction and working principle of water cooling system. (10M)
- 15 Explain rigid axle and independent suspension system. Discuss their applications. (10M)
OR
- 16 Describe in detail about single plate clutch with a neat diagram. (10M)
- 17 Explain the working of a tandem master cylinder. Give its merits and demerits. (10M)
OR
- 18 Describe in detail about the multipoint fuel injection for S.I. engines. (10M)
- 19 Explain the emission standards for pollution control. Describe Euro-IV norms for passenger cars. (10M)
OR
- 20 Explain Indian standards for emissions for petrol and diesel vehicles. (10M)