

III B. Tech II Semester Regular Examinations, June-2022
AUTOMOTIVE POLLUTION AND CONTROL

(Automobile Engineering)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) What is pollution? Explain briefly about any two sources of pollution. [8M]
- b) Define emission standards. What are the emission control techniques? [7M]

(OR)

2. a) Explain the effects of pollutants on environment human beings. [8M]
- b) Define Air pollution. What are the various emissions from Automobiles? [7M]

UNIT-II

3. a) Explain the emission formation in SI engines. [8M]
- b) Briefly explain the positive crank case ventilation? [7M]

(OR)

4. a) Explain the effects of design and operating variables on emission formation. [8M]
- b) Explain thermal reactor. [7M]

UNIT-III

5. a) Explain about the Cetane number. [8M]
- b) Explain the physical and chemical delay in ignition engines. [7M]

(OR)

6. a) Define and write short notes about EGR and HCCL. [8M]
- b) Significance effect of operating variables on emission formation. [7M]

UNIT-IV

7. a) Explain the sources of noise pollution in automobiles. [8M]
- b) Explain about the Encapsulation technique for noise reduction. [7M]

(OR)

8. a) How to reduce the noise pollution in automobiles? [8M]
- b) Explain about the Transmission noise and vehicle noise. [7M]

UNIT-V

9. a) Explain about the sound level meters and dilution tunnel. [8M]
- b) Define the chassis dyno seven mode and thirteen mode cycles for emission sampling. [7M]

(OR)

10. a) Explain about the SHED test. [8M]
- b) Define and explain about NDIR and FID. [7M]

