

MODEL QUESTION PAPER
EIGHTH SEMESTER B.TECH DEGREE EXAMINATION
(2013 Scheme)

13.801 Automotive Pollution and Control (U)

Time: 3 Hours

Max. Marks: 100

Part - A (10 X 2 Marks)

1. What are the main reasons for noise pollution from a diesel engine?
2. How particulate emissions are formed in a diesel engine?
3. What is global warming?
4. What are the fuel modifications that can reduce the emissions from SI engines?
5. How does the A/F ratio affect the emission formation?
6. How can we control evaporative emission?
7. What are the advantages of EGR?
8. Explain the effect of compression ratio on CO formation.
9. What are the sources of HC emission?
10. What do you mean by CVS-I?

Part B (4 X 20 Marks)

- 11 a. Explain the effects of various air pollutants on human beings.
Or
b. What are the operating variables that affect the HC and NO_x formation in SI engines? How it can be controlled?
- 12 a. Explain and compare the different emission standards?
or
b. What are the types of smoke? Explain the sources of smoke formation in 2-stroke SI engine?
- 13 a. What is meant by FTP test cycle? How the vehicle emissions are tested in this method?
Or
b. Explain the working of Chemiluminescent analyzer?
- 14 a. What is the purpose of catalytic converter? Explain the types and mechanism involved to reduce emission.
Or
b. Briefly explain about the sources of noise pollution from automobiles. How can the noise from the tail pipe be controlled?