

QP Code : 31499

(3 Hours)

[Total Marks : 80

- N.B. :
- 1) Question No.1 is compulsory
 - 2) Attempt any three questions from remaining
 - 3) All questions carry equal marks
 - 4) Make suitable assumptions and mention same clearly
 - 5) Draw neat and clear diagrams wherever necessary

Q.1 Attempt any 4(four) from the following: 20

- a) Explain Indian (Bharat Stage) Emission Norms for Diesel Passenger Cars.
- b) When EGR System is used?
- c) What is flue Gas? What it contains?
- d) What are advantages and disadvantages of ethanol over conventional fuel?
- e) What is a Thermal Reactor?

Q.2 08

- a) Describe different types of smokes.
- b) Explain with neat sketch constructional and operational features of NDIR analyser. 12

Q.3 10

- a) Compare properties of CNG, LPG and Gasoline and state which is more Green Fuel? 10
- b) What are effects of NO_x emission on human beings as well as on Environment?

Q.4 10

- a) With proper Sketch describe Positive Crankcase Ventilation System? Why same is required? 10
- b) What is a 3 Way Catalytic Converter? Explain with sketch and also describe the noble metals used and necessity of Unleaded Gasoline. 10

Q.5 10

- a) Discuss effects of automobile Pollution on human health. 10
- b) Describe the new technologies used in S.I. engine to reduce emissions.

Q.6 Write short notes on ;(any four)

20

- a) Bosch Smoke Meter
- b) Alternate Fuels
- c) History of emission norms.
- d) Diesel Particulate Filter
- e) Smog

muquestionpapers.com