Total No. of Questions : 4]

SEAT No. : ____

PC-177

[Total No. of Pages : 2

[6361] - 35
B.E (Civil Engg) Insem.
AIR POLLUTION AND CONTROL
(2019 Pattern) (Semester - VII) (401004 A)(Elective - IV)

Time : 1 Hour] ***[Max. Marks : 30***

Instructions to the candidates:

1) ***Answer Q.1 or Q.2, and Q.3 or Q.4.***
2) ***Figures to the right indicate full marks.***
3) ***Draw neat figures wherever necessary.***

Q1) a) What are the zones of atmosphere? Explain any one. **[4]**

b) Write a short note on- **[6]**

i) Ozone Depletion

ii) Acid Rain

iii) Global Warming

c) Explain National Clean Air Program (NCAP) **[5]**

OR

Q2) a) State & Explain the scales of meteorology? **[4]**

b) Explain the important provision made in central motor vehicle Act 1988. **[6]**

c) Define air quality index (AQI) and explain the significance of it. **[5]**

Q3) a) Write short note on: Wind rose diagram **[4]**

b) A factory uses 2,00,000 litres of furnace oil (specific density 0.97) per month. If for one million litres of oil used per year, the particulate matter emitted is 3.0 tonnes per year, SO2 emitted is 59.7 tonnes per year, NOx emitted is 7.5 tonnes per year, hydrocarbons emitted are 0.37 tonnes per year, and carbon monoxide emitted is 0.52 tonnes per year, calculate the height of chimney required to be provided for the safe dispersion of the pollutants **[6]**

c) Explain plume behavior with the help of neat sketches. **[5]**

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OR

Q4) a) Explain how the concentration of pollutants is found out by Gaussian model. Explain each term of Gaussian formula. **[5]**

b) List various equipment's used and the unit of measurement for the meteorological parameters. **[5]**

c) Explain the concept of plume rise. What are the factors considered in calculating plume rise? Write formulae for calculating plume rise? **[5]**

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