

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 49114

B.E./B.Tech. DEGREE EXAMINATION, SEP 2020

Elective

Civil Engineering

14UCE914-AIR POLLUTION AND CONTROL ENGINEERING

(Regulation 2014)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. Photochemical air pollution is due to CO-1 R
(a) Carbon monoxide (b) Ozone
(c) Carbon dioxide (d) Oxide of Nitrogen
2. Nausea is caused due to _____ CO-1 R
(a) Low level of inhalation of CO (b) Low level of inhalation of CO₂
(c) Higher level of inhalation of CO (d) Higher level of inhalation of CO₂
3. Secondary meteorological parameter is CO-2 R
(a) Wind speed (b) Wind direction (c) Solar radiation (d) Temperature
4. Which one of the following plume behaviours occurs when atmospheric inversion begins from the ground level and continues? CO-2 R
(a) Looping (b) Fumigation (c) Coning (d) Fanning
5. Efficiency of cyclones if particle size ranges between 5-20 μ is CO3- R
(a) 45-75 (b) 50-80 (c) 55-85 (d) 60-100
6. _____ are used when the control efficiency requirements are low to moderate range of 50 to 90 %. CO3- R
(a) Wet scrubbers (b) Electronic precipitators
(c) Mechanical collectors (d) Fabric filters

7. HF range from aluminium industry CO4- R
 (a) 0.123 (b) 0.124 (c) 0.125 (d) 0.126
8. The major contributor of carbon monoxide is _____ CO4- R
 (a) Motor vehicle (b) Industrial processes
 (c) Stationary fuel combustion (d) Burning of tyres
9. Hearing loss is possible at intensity of _____ CO5- R
 (a) 7 dB (b) 90 dB (c) 45 dB (d) 70 dB
10. Radon is responsible to create CO5- R
 (a) Liver cancer (b) Skin cancer (c) Lung cancer (d) Throat cancer

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. Enumerate the different types of pollutant sampling. CO1- U (8)
12. Enlist the five main layers of atmosphere from highest to lowest CO2-U (8)
13. Explain factors affecting selection of control equipment CO3-U (8)
14. Discuss in detail about the components of bio-filtration unit CO4- U (8)
15. Explain the sick building syndrome with its symptoms and prevention. CO5- U (8)