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SEAT No. _____

SARDAR PATEL UNIVERSITY

B.Sc. FIFTH SEMESTER EXAMINATION

2018

FRIDAY, 26th OCTOBER

10:00 am to 01:00 pm

USO5CENV03

(ENVIRONMENTAL POLLUTION)

Marks: 70

Note: 1. Answers of all the questions (including multiple choice questions) should be written in the provided answer book only

2. Draw neat and labeled diagrams wherever necessary

Q.1. Select the correct answer and write it in the answer sheet. (10)

1. _____ is the natural source of air pollution

- (a) Sea spray
- (b) CO
- (c) O₃
- (d) NH₃

2. _____ technique is suitable for separation of larger particles having a size more than 10 μ

- (a) Filtration
- (b) Sedimentation
- (c) Impingement
- (d) Freeze out

3. Which pollutant mainly contains carbon and hydrogen?

- (a) Inorganic
- (b) Solid particles
- (c) Organic
- (d) Liquid particles

4. 75% radiation caused DNA damage is due to _____ free radical

- (a) OH
- (b) HOH
- (c) O
- (d) HO

5. Radioactive waste disposal package should have design life of _____ years

- (a) 400
- (b) 300
- (c) 200
- (d) 100

6. _____ is the combustion in absence of oxygen

- (a) Pyrolysis
- (b) Incineration
- (c) Burning
- (d) Ignition

7. A _____ °C rise in temperature doubles the toxic effect of potassium cyanide

- (a) 5°C
- (b) 10°C
- (c) 15°C
- (d) 20 °C

8. Number of vibrations per second is known as _____

- (a) Frequency
- (b) Wave length
- (c) Amplitude
- (d) Sone

9. _____ is the third stroke of internal combustion engine

- (a) Intake
- (b) Compression
- (c) Power
- (d) Exhaust

10. Operational range of A/F ratio for IC engine is _____

- (a) 0.5 to 0.9
- (b) 0.8 to 1.2
- (c) 1.1 to 1.5
- (d) 1.9 to 2.3

(1)

(P.T.O)

Q.2. Answer the following questions in brief (Any 10)

(20)

1. Discuss in brief effects of any three air pollutants on health and material
2. Write in brief about particulate matter
3. Define air pollution according to the Bureau of Indian Standards
4. Enlist the sources of biomedical waste
5. What is soil pollution?
6. What is radioactive fallout?
7. State the principle of sound level meter
8. Enlist the parts of human ear
9. Define thermal pollution
10. Write note on tail pipe emissions
11. Define vehicular pollution
12. Enlist the emissions from gasoline powered vehicles

Q.3. Write note on:

(a) Preventive air pollution control technique

(05)

(b) Sampling of particulate matter

(05)

OR

Q.3. Give a detailed account of control of gaseous pollutants

(10)

Q.4. (a) Write note on solid waste management

(05)

(b) Discuss the disadvantages of disposing organic waste in soil

(05)

OR

Q.4. (a) Discuss the effects of radiation pollution

(05)

(b) Explain the methods for prevention and control of radiation pollution

(05)

Q.5. Describe the sources and effects of noise pollution

(10)

OR

Q.5. Discuss the effects and control measures of thermal pollution

(10)

Q.6. (a) Write note on four stroke IC Gasoline engine

(06)

(b) Write about Ethanol and biodiesel fuel used in automobile

(04)

OR

Q.6. (a) Describe the measures to control evaporative emission

(06)

(b) Discuss the pollutant formation in a vehicle

(04)

— X —

(2)