

OR

- (d) Wet scrubbers. 4
- (e) Need of Alternative fuel. 4
- (f) Good driving habits. 4
4. Discuss in brief :—
- (g) Aeration. 4
- (h) Neutralisation. 4
- (i) Trickling filters. 4

OR

- (j) Activated sludge process. 4
- (k) Treatment for sludge. 4
- (l) Chemical Adsorption. 4
5. (m) What are the sources and characteristics of Municipal Solid Waste ? 4
- (n) What are sources and characteristics of Hazardous waste ? 4
- (o) What are the sources and classification of Radioactive waste ? What is the need of radioactive waste management ? 4

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Fifth Semester B. Sc. (Part - III) Examination

ENVIRONMENTAL SCIENCE

(Pollution Control Technology)

P. Pages : 6

Time : Three Hours]

[Max. Marks : 80

- Note :** (1) All questions are compulsory.
(2) Draw well labelled diagrams wherever necessary.

1. (A) Fill in the blanks :—

- (i) The sampling of Air is of ——— and ——— types. $\frac{1}{2}$
- (ii) VOC stands for ———. $\frac{1}{2}$
- (iii) Waste generated during diagnosis, treatment immunization and research is ———. $\frac{1}{2}$
- (iv) B. I. S. stands for ———. $\frac{1}{2}$

(B) Choose Correct Alternative :—

- (i) For the estimation of Oxide of Nitrogen (NO_x) ——— absorbing Reagent is used.
(a) Silver nitrate
(b) Sodium hydroxide

- (c) Alkaline Potassium Iodide
- (d) Potassium Dichromate. $\frac{1}{2}$
- (ii) M.S.W.M. stands for ———
- (a) Municipal solid waste monitoring
- (b) Municipal solid waste measurement
- (c) Municipal solid waste marking
- (d) Municipal solid waste management $\frac{1}{2}$
- (iii) ——— treatment is used to remove suspended solids when waste water contain high percent of settleable solids.
- (a) Trickling Filter
- (b) Skimming
- (c) Sedimentation
- (d) Aeration. $\frac{1}{2}$
- (iv) ——— is a biological process brought about by micro-organism which convert solid organic waste into bio. Fertilizers.
- (a) Incineration
- (b) Digestion
- (c) Composting
- (d) Hog Feeding $\frac{1}{2}$

- (C) Answer in **one** sentence.
- (i) Define Demineralization. 1
- (ii) Define Air sampling. 1
- (iii) Mention Green House Gases. 1
- (iv) What are the types of Personal Protective Equipment (PPE) ? 1

2. What are the different stages which plays important role in good city planning ? Discuss control measures for Green House Gases.

OR

What is sampling and its types ?
Discuss the air analysis for oxides of nitrogen and sulphur. 12

3. Describe in brief :—
- (a) Electrostatics precipitators. 4
- (b) Control of odour by Thermal oxidation. 4
- (c) Role of engine modification in Auto mobile emission control. 4

OR

- (p) Discuss the application of Incineration for the Municipal solid waste management. 4
- (q) Discuss the care for the safe storage and transport of Hazardous wastes. 4
- (r) Discuss the disposal methods for Hazardous waste. 4
6. Discuss in detail the classification, treatment and disposal methods of Biomedical waste.

OR

Discuss Handling and disposal of Radioactive waste.
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7. Describe in brief. :—
- (s) Concept of indoor safety. 4
- (t) Definition and concept of flammable substances. 4
- (u) Need of Respiratory personal protective equipment. 4

OR

- (v) Care and maintenance of non-respiratory protective equipment. 4
- (w) Equipment for body protection. 4
- (x) Equipment for Head protection. 4

