

B.Sc. Part—III (Semester—V) Examination
ENVIRONMENTAL SCIENCE
(Pollution Control Technology)

Time : Three Hours]

[Maximum Marks : 80

Note :— (1) All questions are compulsory.

(2) Draw well labelled diagrams wherever necessary.

1. (A) Fill in the blanks :

- (i) Gravitational settling chamber is used to control _____ particular matter. $\frac{1}{2}$
- (ii) Long form of USAB is _____ Anaerobic Sludge Blanket. $\frac{1}{2}$
- (iii) Open dumping and _____ landfill are the methods of disposal of solid waste. $\frac{1}{2}$
- (iv) Long form of RPPE is _____ Personal Protective Equipment. $\frac{1}{2}$

(B) Choose correct alternatives :

- (i) _____ gas is a prominent green house gas. $\frac{1}{2}$
- (a) CO_2 (b) NO_2
- (c) SO_2 (d) CO
- (ii) Grit chamber is used to remove _____ from waste water. $\frac{1}{2}$
- (a) Solid (b) Liquid
- (c) Grit (d) Paper
- (iii) Activated sludge process is _____ process of waste water treatment. $\frac{1}{2}$
- (a) Physical (b) Chemical
- (c) Biological (d) Inorganic
- (iv) Vols stands for _____ organic compounds. $\frac{1}{2}$
- (a) Volatiles (b) Inorganic
- (c) Toxic (d) Chemical

(C) Answer in **one** sentence :

- (i) What is the application of screening process ? 1
 - (ii) Define Neutralization. 1
 - (iii) Define Biomedical waste. 1
 - (iv) What is application of sedimentation process ? 1
2. Describe in detail any estimation process for SPM and SOX. 12

OR

Describe in detail national and international steps to control green house gases. 12

3. Describe in brief :

- (a) Gravitational settling chamber. 4
- (b) Cyclone separators. 4
- (c) Electrostatic precipitator. 4

OR

- (d) Wet collectors. 4
- (e) Use of after burners. 4
- (f) Catalytic converters. 4

4. Describe in brief :

- (g) Screening. 4
- (h) Neutralization. 4
- (i) Activated sludge process. 4

OR

- (j) Grit chamber. 4
- (k) Demineralization. 4
- (l) Types of sludge. 4

B.Sc. (Part—I) Semester—I Examination

APICULTURE

(Fundamentals of Beekeeping)

Time : Three Hours]

[Maximum Marks : 80

N.B. :— (1) ALL questions are compulsory.

(2) Question Nos. 2 to 7 carry equal marks.

1. (A) Fill in the blanks :—

- (a) Comb foundation sheet is made up of _____. ½
- (b) _____ is Italian honey bee species. ½
- (c) House of honey bee colony provided for beekeeping is bee _____. ½
- (d) _____ is main function of queen bee. ½

(B) Choose correct option :—

- (e) *A. florea* is called : ½
- (i) Dammer bee (ii) Dwarf bee (iii) Rock bee
- (f) Number of frames present in hive of *A. mellifera* : ½
- (i) 7 (ii) 10 (iii) 12
- (g) Which of the following is not bee product ? ½
- (i) Honey (ii) Wax (iii) Jelly
- (h) The species used in honey bee keeping : ½
- (i) *A. florea* (ii) *A. cerena* (iii) *A. dorsata*