



C20-AA-402

7408

**BOARD DIPLOMA EXAMINATION, (C-20)
OCTOBER/NOVEMBER—2023
DAA – FOURTH SEMESTER EXAMINATION
ENVIRONMENTAL ENGINEERING**

Time : 3 Hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. How wells are classified?
2. List any three types of bacteriological impurities present in water.
3. Define the term 'consumer pipe'.
4. State the importance of 'goose-neck' used in water supply.
5. Draw a 'socket and elbow equal' used in GI pipe fitting.
6. State the purpose of stop-valve.
7. Draw insulation details of hot water supply line.
8. Define the term 'Refuse'.
9. Draw a sketch of 'intercepting trap' used in house drainage.
10. State the uses of anti-siphonage pipe.

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **eight** marks.
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

11. (a) Explain Infiltration gallery with a sketch.

(OR)

(b) State physical tests of water and explain briefly.

12. (a) Draw details of water distribution system in a building.

(OR)

(b) Explain factors to be considered in selection of pipes.

13. (a) Draw a cross section of 'Over-head' tank.

(OR)

(b) Explain the design principles in layingout water supply in a residential building.

14. (a) State the different systems of sewerage.

(OR)

(b) Explain the method of carrying refuse by water carriage system.

15. (a) Draw different traps used in house drainage system.

(OR)

(b) Draw drainage arrangement for a single bedroom house.

PART—C

10×1=10

- Instructions :** (1) Answer the following question.
(2) The question carries **ten** marks.
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

16. Draw and explain the details of rain water harvesting pit.

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