

# 12427

**15116**

**2 Hours / 50 Marks**

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Assume suitable data, if necessary.
- (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

- 1. Attempt any SEVEN of the following: **14****
- Indian W.C. (cross-section) on typical floor.
  - Enlist materials to be used sewers.
  - Intercepting chamber (cross section)
  - State any two uses of manhole cover.
  - Cesspools
  - Explain the term storm water drain
  - Portable septic tank in PVC.
  - Explain smoke test.
  - Advantages of two pipe system.
  - Explain the term sullage.

P.T.O.

- 2. Explain with neat sketches any THREE of the following: 12**
- a) Functioning of Septic tank and Soak pit.
  - b) Purpose of drop manhole sketch and explain.
  - c) Flushing tank and its purpose.
  - d) Methods to check drain pipes for leakages after installations.
  - e) Laying and execution of sewer pipes.
- 3. Attempt any FOUR of the following: 12**
- a) Why is ventilation essential in sewer lines?
  - b) Types of Sanitary pipes and their uses.
  - c) Enlist patterns of refuse collection and state one advantage and one disadvantage of fan pattern.
  - d) Purpose of Antisiphonage pipe in house drainage system.
  - e) Sketch and explain any two types of traps.
  - f) Give three advantages and three disadvantages of separate system of drainage.
- 4. Attempt any TWO of the following: 12**
- a) What are advantages of having a sewer with self cleaning velocity?
  - b) Draw plan and typical longitudinal section of septic tank with soak pit to show working and constructional features.
  - c) Cross section of Drop manhole.
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