

Total No. of Questions : 10]

SEAT No. :

P2972

[5154]- 524

[Total No. of Pages : 2

B.E. (Civil)

PLUMBING ENGINEERING

(2012 Pattern) (Semester - II) (Open Elective)

Time :2½ Hours]

[Max. Marks :70

Instructions to the candidates:

- 1) *Answer Q.No 1 or Q.No 2, Q.No 3 or Q.No 4, Q.No 5 or Q.No 6, Q.No 7 or Q.No 8, Q.No 9 or Q.No 10.*
- 2) *Neat diagrams must be drawn whenever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data if necessary.*

Q1) a) Explain UPC - I and GPCS - I. **[5]**

b) How Plumbing engineering is related with Swachha Bharat Abhiyan. **[5]**

OR

Q2) a) Describe the role of Plumber while executing plumbing work in the building industry. **[6]**

b) State components of plumbing required for rain water harvesting. **[4]**

Q3) a) Draw a neat sketch (section and elevation) of female public urinals with standards dimensions. **[5]**

b) Explain plumbing necessary for solar water heating. **[5]**

OR

Q4) a) State velocity, pressure, temperature limitations in plumbing and explain its importance in plumbing design. **[6]**

b) How backflow is prevented in water supply and what is its importance in plumbing. **[4]**

P.T.O.

- Q5) a)** Explain horizontal wet vent and vertical wet vent with neat sketch. [8]
- b) Comment on “ plumbing system needs to breathe”. state maximum value of Pneumatic pressure difference in Pascal’s so that the seal is protected. State vent terminals as per code. [10]

OR

- Q6) a)** Explain drainage system for three star hotel building (G + 4). Include explanation of drainage from kitchen. [8]
- b) State the trap requirements as per uniform plumbing code for. [10]
- i) Design of trap
- ii) Trap seal and trap seal protection
- iii) Trap setting and protection

- Q7) a)** State requirements of a sanitary closet. Explain Indian pattern water closets & European type Closets with neat sketch. [8]
- b) Explain drainage air test & drainage water test procedures. [8]

OR

- Q8) a)** Explain sizing of house drain & sizing its vent pipe. [8]
- b) Explain basic guide to calculate falls and gradients for drainage. [8]

- Q9) a)** Explain RCC, PVC, Nu-Drain, and Stoneware for building sewers. Also explain ancient stone ware drainage of Mohenjo-Daro. [10]
- b) Explain with neat sketch requirements for brick built inspection chamber and Gully trap for drainage line of G + 1 structure. [6]

OR

- Q10)a)** Explain design of plumbing systems for multi -storey buildings. [8]
- b) How does faulty plumbing system for multi-storey building affected many people in CHINA. (SARS, severe acute respiratory syndrome) [8]

