

Total No. of Questions : 10]

SEAT No. :

P2131

[Total No. of Pages : 2

[5254] -524
B.E. (Civil)
PLUMBING ENGINEERING
(2012 Pattern) (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 wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data if necessary.

- Q1)** a) What are various plumbing codes enlist them and explain GPCS - I [5]
b) Write a note on public health engineering and relate it with Swachha Bharat Abhiyan. [5]

OR

- Q2)** a) Describe the role of Plumbing Contractor while executing plumbing work in the building industry. [6]
b) Explain local laws laid down by municipal corporation for plumbing regarding rain water harvesting. [4]

- Q3)** a) Draw a neat sketch (section and elevation) of urinal 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 Washout water closets & Hopper 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]

