Total No. of Questions : 12]

SEAT No :

P 2659

[Total No. of Pages :2

[5154]-30
B.E. (Civil)
PLUMBING ENGINEERING
(2008 Course) (Semester-II) (Open Elective)

Time : 3 Hours] *[Max. Marks : 100*

Instructions to the candidates:

1) ***Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6 Q.7 or Q.8, Q.9 or Q.10, Q.11 or Q.12.***
2) ***Neat diagrams must be drawn whenever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***

SECTION-I

Q1) a) Describe the role of Plumber while executing plumbing work in the building industry. **[9]**

b) Comment on coordination of plumbing agency with other construction agencies while execution of plumbing. **[9]**

OR

Q2) a) Describe the role of Plumbing contractor while executing plumbing work in the building industry. **[9]**

b) What are prohibited fittings and explain its role in plumbing. Explain your answer with neat sketch? **[9]**

Q3) a) Explain any two plumbing fixtures with neat sketch. **[8]**

b) What are various plumbing tools? Explain any three tools with sketch. **[8]**

OR

Q4) a) Explain PEX and HDPE pipes in plumbing industry and state their advantages and disadvantages. **[8]**

b) What is WSFU? State at least four WSFU and how will you use it in plumbing design? **[8]**

Q5) a) Why it necessary to provide various traps in plumbing engineering ? Explain with neat sketch S-Trap, P-Trap and Nahani Trap. **[8]**

b) State various types of traps in plumbing engineering? Explain with neat sketch Grease Trap, Prohibited Trap and Gully Trap. **[8]**

OR

P.T.O.

Q6) a) Why vents are required in plumbing engineering. Explain with neat sketch various parts of vents for double and single stack system. **[8]**

b) What is trap seal? How it is protected? Explain with neat sketch sewer trap. **[8]**

SECTION-II

Q7) a) State four types of sanitary systems of plumbing and explain any two systems. **[8]**

b) State the different types of building drainage pipes expalin any two with sketches. **[8]**

OR

Q8) a) Why inspection of chamber is necessary and differentiate between soil and waste verses black and grey water. **[8]**

b) State four DFU values and how will you use it in drainage design? **[8]**

Q9) a) What is storm water drainage system explain with sketch layout of storm drainage system and highlight its importance. **[9]**

b) State the design steps for rain water harvesting system. **[9]**

OR

Q10)a) State the advantages of solar water heating. State various components of solar water heating system. **[9]**

b) Darw a neat sketch (elevation of wall) of hot and cold concealed piping for bathroom, stating standard levels and spacing's of fixtures and fittings as per standards. **[9]**

Q11)a) Explain RCC, PVC, Nu-Drain and stoneware in building sewer system. **[8]**

b) How will you carry out testing of drain pipe in drainages line. **[8]**

OR

Q12)a) Explain how you will supervise exexution of drainage line for G+3 Apartment. **[8]**

b) What care you will take while designing plumbing system for high rise buildings and what is the role of pressure reducing valves (PRV),? **[8]**

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