

Total No. of Questions : 6]

SEAT No. :

P273

Oct./BE/Insem.-591

[Total No. of Pages : 2

B.E. (Chemical Engineering)

PIPING DESIGN AND ENGINEERING

(2015 Course) (Semester - I) (Elective - II) (409345:3)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4 and Q.5 or Q.6.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Assume suitable data, if necessary.*
- 4) *Figures to the right indicate full marks.*

Q1) A pumping plant forces water through a 600 mm diameter main, the friction head being 27 m. In order to reduce the power consumption, it is proposed to lay another main of appropriate diameter along the side of existing one, so that two pipes may work in parallel for the entire length and reduce the friction head to 9.6 m only. Find the diameter of the new main if, with the exception of diameter, it is similar to existing one in every respect. **[10]**

OR

Q2) Explain Two phase flow. **[10]**

Q3) Explain different types of Pipe Fittings. **[10]**

OR

Q4) Explain the Functions and Properties of Gasket. Also types of Gasket and their selection. **[10]**

P.T.O.

Q5) Explain in Detail:

[10]

- a) Gate Valve
- b) Globe Valve

OR

Q6) a) Discuss the working principle of swing check valves.

[5]

- b) What do mean by rupture disk, discuss guidelines of selection of rupture disk.

[5]

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