B.Tech. (Chemical Engineering) Eighth Semester (C.B.S.)

Elective - III : Piping Engineering

P. Pages : 1 **NIR/KW/18/3808**

Time : Three Hours * 1 2 3 0 * Max. Marks : 80

Notes : 1. All questions carry marks as indicated.
2. Solve **any five** questions.
3. Due credit will be given to neatness and adequate dimensions.
4. Illustrate your answers whenever necessary with the help of neat sketches.

1.	a)	Discuss how will you design pipe line on fluid dynamic parameter.	**8**
	b)	How many types of fluid services are available for process piping.	**8**
2.	a)	Give details of various gaskets used in piping engineering.	**10**
	b)	What is the scope of ASME B 31.3? What does it covers?	**6**
3.	a)	What is an isometric drawing?	**8**
	b)	Give details of various types of plot plans.	**8**
4.	a)	Why are the fasteness used? Discuss the engineering fundamentals of tightening process.	**8**
	b)	What are various types of flanges used in piping engineering?	**8**
5.	a)	Discuss the provisions of NFPA in detail.	**8**
	b)	Discuss the application of insulation over cold surface. What is vapour sealing and how it is achieved?	**8**
6.		Give details of layout of LPG facilities.	**16**
7.	a)	What are the desirable properties of material of construction for pipe?	**8**
	b)	What is Indian standard IS 2379 : 1990? Explain its scope and applications.	**8**
8.	a)	What are the components and accessories of expansion joint? Explain with the help of neat labelled diagram.	**8**
	b)	Give details of various types of pressure relief valves used in process industry.	**8**

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