

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain in detail Bernoulli's theorem. Also derive Bernoulli's equation with suitable assumption.

Q.24 Give the classification of pumps. Write the construction & working of reciprocating pump.

Q.25 Write short note on any two of the following

- a) Color coding of industrial piping used for transportation of various fluids.
- b) Cavitation
- c) Friction losses due to sudden enlargement & contraction
- d) Properties of fluid

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**2nd Sem. / Chemical, Chem. P & P**

**Subject : Fluid Flow**

Time : 3 Hrs.

M.M. : 60

### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 What is fluid mechanics?

- a) Study of fluid behavior in motion
- b) Study of fluid behavior in rest
- c) Both a & b
- d) None

Q.2 When fluid is called turbulent?

- a) High viscosity of fluid
- b) Reynold no is greater than 2000
- c) Reynold no is less than 2000
- d) None

Q.3 Pressure measured above atmospheric pressure is called?

- a) Absolute
- b) Gauge
- c) Static pressure
- d) None

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- Q.4 One poise is equal to \_\_\_\_\_
- a) 100 centipoise      b) 10 centipoise  
c) 1000centipoise      d) None

Q.5 What is pressure?

- a)  $F \cdot A$       b)  $F/A$   
c)  $A/F$       d) None

Q.6 Vacuum pressure is also called \_\_\_\_\_

- a) Negative gauge pressure  
b) Positive gauge pressure  
c) Both a & b  
d) None

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Write any one difference between steady & unsteady flow.
- Q.8 Mention any one application of manometer.

- Q.9 What is the effect of temp on the mass density of fluid?
- Q.10 Which apparatus is used for flow measurement?
- Q.11 Expand NPSH.
- Q.12 Where butterfly valve is used?

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Difference between laminar & turbulent flow.
- Q.14 What are the properties of Newtonian fluid?
- Q.15 Explain Pascal law.
- Q.16 Write a note on Hagen Poiseulli's equation.
- Q.17 Draw neat sketch of Venturimeter.
- Q.18 Discuss the working of orifice meter.
- Q.19 What is priming & NPSH?
- Q.20 Mention the uses of blowers & compressor.
- Q.21 List various type of valves used in industry.
- Q.22 Define BWG No.