Q.25 Explain about the u-tube Manometer.

Q.26 Discuss about the properties of fluid.

Q.27 Discuss the Significance of Reynolds number.

Q.28 Give labeled diagram of venturimeter.

Q.29 Explain the continuity equation.

Q.30 Bernoulli theorem is based upon which principle?

Q.31 Describe Ball valve in brief.

Q.32 Explain the working of a reciprocating pump.

Q.33 Discuss about the cavitation.

Q.34 Discuss about the schedule number.

Q.35 Explain about the gate valve.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Explain the principle, construction and working of orifice meter with the help of a neat diagram.

Q.37 Explain the principle, construction and working of a centrifugal pump with the help of a neat clean diagram.

Q.38 Write short note on the following:

a) Dimensionless number and their significance

b) Friction loss from sudden enlargement

3rd Sem / Chem, P & P, Chem Engg. (Spl. Paint Tech.)
Chem Engg. (Spl. Polymer Engg)
Subject:- Fluid Flow

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 The force per unit area is called_____

a) Viscosity b) Pressure

c) Temperature d) Surface Tension

Q.2 Unit of discharge is_____

a) $feet^3/sec$ b) $meter^3/sec$

c) Cubic feet/sec d) All of these

Q.3 When is a fluid said to be ideal?

a) Non viscous and Incompressible

b) Viscous and compressible

c) Viscous and Incompressible

d) Incompressible

Q.4 The viscosity of liquid _____with increases in temperature

a) Increases b) Decreases

c) Remains constant d) None of these

Q.5 Water is a

a) Newtonian fluid b) Non-Newtonian

c) Bingham fluid d) Thyxotropic fluid

Q.6 Pressure is expressed in S.I units in terms of

a) N/m^2 b) Pascal

c) kg/ms^2 d) all of these

Q.7 The S.I unit of work done in

a) Newton meter b) Joule

c) kg $meter^2$/ $second^2$ d) All of these

Q.8 Priming needed in a

a) Reciprocating pump b) Gear pump

c) Centrifugal pump d) Diaphragm pump

Q.9 The ratio of inertia force to viscous force is know as_____

a) Nusselt Number b) Reynolds Number

c) Biot Number d) None of these

Q.10 A manometer is used to measure

a) Atmospheric pressure

b) Pressure in pipes and channels

c) Pressure in Venturimeter

d) Vacuum pressure

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 S.I. unit of viscosity is_____.

Q.12 _____Prossesses no difinite volume and is compressible.

Q.13 Expand NPSH.

Q.14 What is the S.I unit of mass density?

Q.15 Absolute Pressure = Atmospheric Pressure+_____.

Q.16 Blood is the Pseudoplastic fluid. (True/False)

Q.17 Unit Pressure head is _____.

Q.18 What is the S.I unit of velocity.

Q.19 Write example of open channels.

Q.20 Cd =_____.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Write the difference between Newtonian and Non-Newtonian fluids in brief.

Q.22 What is difference between rotational and Irrotational Flow?

Q.23 Explain Pascal's Law & state its significance.

Q.24 Discuss the significance of friction factor charts.