Q.27 Explain Friction losses from sudden enlargement and contraction.

Q.28 Difference between laminar flow and turbulent Flow?

Q.29 Write about Rotameter with diagram?

Q.30 Write about friction factor chart.

Q.31 Explain the Dimensional analysis.

Q.32 Discuss about colour coding used in industry

Q.33 Discuss about reciprocating Pump.

Q.34 Write about the schedule number, ID and OD of pipe.

Q.35 explain anyone type manometer with diagram.

SECTION-D

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

Q.36 Explain construction and working of Centrifugal Pump with neat and clean Diagram.

Q.37 Derive the Fanning Friction Factor Equation.

Q.38 Write short note on any of three :-
1. Pitot tube
2. u- tube manometer
3. Effect of roughness in pipes
4. Properties of fluid
5. type of flow

**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 Name the type of flow are
a) Steady Flow　　　b) Uniform flow
c) laminar flow　　　d) All of above

Q.2 Newtonian fluid is one in which the viscosity
a) remains constant with time and power input
b) increases with the level of power input
c) decreases with the level of power input
d) drastically increases with the level of power input.

Q.3 The SI unit for viscosity is
a) Kg.m-1.s-1　　　b) Kg.m-2.s-2
c) Kg.m-3.s-1　　　d) Kg.m-1.s-2

Q.4 positive displacment pump is
a) Rotary Pump　　　b) reciprocating pump
c) Centrifugal pump　d) None of above

Q.5 The fluid which has no viscosity, no surface tension is

a) Real fluid

b) ideal fluid

c) Newtonian Fluid

d) Non Newtonian Fluid

Q.6 The parts of the Venturi meters are

a) Convergent section b) Divergent Section

c) Throat d) All of above

Q.7 Absolute Pressure is sum of

a) Atmospheric Pressure + gauge Pressure

b) Atmospheric Pressure+ vacuum pressure

c) Both A&B

d) None of above

Q.8 The standard value of atmosperic pressure is

a) 760mm of hg b) 1.01325 bar

c) 10.34m of water d) All of above

Q.9 manometer is used for measuring

a) Pressure b) Density

c) surface tension d) viscosity

Q.10 Red color is used for color coding of the pipeline for the

a) Water b) Fire quenching fluids

c) Both A&B d) None of above

SECTION-B

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

Q.11 Define Compressible Fluid?

Q.12 What is uniform Flow?

Q.13 Write full form of NPSH.

Q.14 What is steady Flow?

Q.15 Define valve?

Q.16 Write use of fluid.

Q.17 Name any one Pump used in industry.

Q.18 Write formula of continuity equation?

Q.19 Write one application of Blowers?

Q.20 Define Pump?

SECTION-C

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

Q.21 Difference between Newtonian Fluid and Non Newtonian Fluid?

Q.22 Write about types of flow?

Q.23 Discuss about flow nozzle.

Q.24 Derive the equation of NPSH.

Q.25 Write about the compressor.

Q.26 Derive the equation for Hagen Poiseulli's equation?