

- Q.26 Explain Dead weight pressure gauge.
 - Q.27 Explain Choke valve with diagram.
 - Q.28 Explain Plug valve with diagram.
 - Q.29 Explain piston pump with diagram.
 - Q.30 What is micro manometer? Explain with diagram.
 - Q.31 How viscosity effects motion of fluid? What is steady & unsteady flow.
 - Q.32 Drive an expression for discharge through a compound pipe in series arrangement.
 - Q.33 Explain axial pump with diagram.
 - Q.34 What is gauge pressure, absolute pressure & atmospheric pressure.
 - Q.35 How relief value works, explain with diagram.

SECTION-D

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

- Q.36 Explain Reciprocating pump with neat sketch.

Q.37 Explain with neat sketch:

 - a) Ball valve
 - b) Solenoid valve

Q.38 Explain with neat sketch:

 - a) Differential Manometer
 - b) Diaphragm Pressure gauge

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3rd Sem / Plastic Tech.

Subject:- Fluid Flow/ viscous Flow of Fluids/ Unit Op.-1

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Real Fluid has:

 - a) Viscosity
 - b) Compressibility
 - c) Both a & b
 - d) None

Q.2 Laminar flow has Reynolds numbers:

 - a) Less than 2000
 - b) More than 4000
 - c) Between 2000-4000
 - d) None

Q.3 Pitot tube is used to measure:

 - a) Viscosity
 - b) Rate to flow
 - c) Both a & b
 - d) None

Q.4 Loss of head at entrance of a pipe is given by:

 - a) $(V^1 - V^2)^2 / 2g$
 - b) $4fV^2 / 2gd$
 - c) $0.5V^2 / 2g$
 - d) None

Q.5 Chezy's Formula is given by:

- a) $V=1 \sqrt{mc}$
- b) $V=c \sqrt{mi}$
- c) $V=M \sqrt{\rho_i}$
- d) None

Q.6 Manometer is used to measure:

- a) Velocity at a point in a fluid
- b) Pressure at a point in fluid
- c) Discharge of fluid
- d) All of the above

Q.7 Atmospheric pressure is also called:

- a) Absolute pressure
- b) Barometric pressure
- c) Both a & b
- d) None

Q.8 Bernoulli's theorem may be applied to:

- a) Pitot tube
- b) Venture meter
- c) Orifice meter
- d) All of the above

Q.9 Priming of a pump is done in order to:

- a) Run the pump satisfactorily
- b) Completely fill the impellor & casing
- c) Remove air from the impeller & casing
- d) All of the above

Q.10 Surface Tension unit is:

- a) N/M
- b) N/M²
- c) NM
- d) None of these

SECTION-B

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

- Q.11 Define Ideal Fluid.
- Q.12 Define Reynolds's Number.
- Q.13 Write Bernoulli's equation.
- Q.14 Define Absolute pressure.
- Q.15 What is Manometer?
- Q.16 Orificemeter Tube is used to measure _____.
- Q.17 What is Froude's Number?
- Q.18 Give example of high pressure pump.
- Q.19 Give S.I. Unit of density.
- Q.20 How viscosity of liquids varies with temperature?

SECTION-C

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

- Q.21 Give difference between Uniform & non uniform flow.
- Q.22 Give difference between ideal Fluid & Real Fluid.
- Q.23 Derive an expression for Bernoulli's theorem.
- Q.24 Explain Orifice meter with diagram.
- Q.25 Give loss of head in pipes by Darcy's formula.