

- 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) $4flv^2 / 2gd$
- c) $0.5v^2 / 2g$ d) None
- Q.5 Chezy's Formula is given by:

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- a) $V=1 \overline{\dot{Q}mc}$ b) $V=c \overline{\dot{Q}mi}$
 c) $V=M \overline{\dot{Q}ci}$ 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) Venturi 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 impeller & casing
 c) Remove air from the impeller & casing
 d) All of the above

Q.10 Surface Tension unit is:

- a) N/M b) N/M^2
 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.