Q.25 A horizontal pipe of 200 mm diameter suddenly enlarge to 300 mm diameter. After some length, it Suddenly reducer to 150 mm diameter. if water flowing in pipe be 200 litres/ Sec, find

a) Loss of head due to sudden enlargement.

b) Loss of head due to sudden contraction.

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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 The mass per unit volume of a liquid at standard temp and pressure is called .

a) Specific weight b) Specific gravity

c) Mass density d) None of these

Q.2 Formula of Pressure is

a) A/P b) P/A

c) F/A d) A/F

Q.3 SI unit of surface Tension is

a) Newton / length b) N/m

c) N/m^2 d) N/m^3

Q.4 A flow in which quantity of liquid flowing per second is_____ is called steddy flow.

a) Variable b) increasing

c) decreasing d) constant

Q.5 Bernoulli's equation is applied for

a) Venturi meter b) Orifice meter

c) Pitot tube d) All of these

Q.6 Continuity equation is

a) $A_1F_1 = A_2F_2$ b) $A_1V_1 = A_2V_2$

c) $A_1l_1 = A_2l_2$ d) None of these

SECTION-B

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

Q.7 Define Unsteady Flow.

Q.8 What is Non Newtonian Fluid

Q.9 Write three properties of Fluid

Q.10 What is Fluid?

Q.11 Write formula of Friction loss in pipe

Q.12 Define Priming

SECTION-C

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

Q.13 State and Explain Bernoulli's Theorem and its assumptions.

Q.14 Write short note on Differentiate memometer.

Q.15 Define Pascal's Law with diagram.

Q.16 Write short note on cavitation

Q.17 Write function of Blower

Q.18 Write short note colour coding of industrial piping.

Q.19 Name different types of valves and fitting.

Q.20 Define Schedule Number. Where it is used in industry.

Q.21 Write effect of roughness in pipes.

Q.22 Discuss working of rotamater with diagram.

SECTION-D

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

Q.23 Explain construction and working of venturimeter with a diagram.

Q.24 Discuss construction and working of reciprocating pump with a neat diagram.