Q.31 State and drive continuity equation.

Q.32 Drive an expression for velocity to be measured by pitot tube.

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four questions.   (3x10=30)

Q.33 Explain any ten difference between Jaw crusher and Gyratory Crusher.

Q.34 Explain working of plate and frame filter press with neat sketch.

Q.35 Drive a expression for discharge over a rectangular weir.

Q.36 Drive an expression for pressure difference measured by a U - tube differential manometer.

3rd Sem. / Rubber Tech.

Subject : Unit operations - I

Time : 3 Hrs.   M.M. : 100

SECTION-A

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

Q.1 The study of liquids at rest is called _____.

Q.2 Newton's law of viscosity states that _____.

Q.3 Intensity of pressure may be measured in ____.

Q.4 A barometer is used to measure _____.

Q.5 Kinetic head in Bernoulli's theorem is given as _____.

Q.6 Orifice meter is used to measure _____.

Q.7 The loss of head due to sudden enlargement of pipe is given by _____.

Q.8 A hydraulic pump is a device which converts _____.

Q.9 Size reduction is a _____ process of breakdown of solids into smaller size particles.

Q.10 _____ are used for continuous mixing.

SECTION-B

Note: Very short answer type questions. Attempt any ten questions out of twelve questions.

(10x2=20)

Q.11 Define fluids

Q.12 Define Viscosity.

Q.13 Define mechanical gauge.

Q.14 Define uniform flow.

Q.15 Define orifice.

Q.16 Define reciprocating pump.

Q.17 Define weight fraction.

Q.18 Define ball mill.

Q.19 Define electrostatic separation.

Q.20 Define mixing.

Q.21 Define kneader.

Q.22 Define masticators.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x5=40)

Q.23 Explain difference between crushing and grinding operation.

Q.24 Explain working of a vibrating screens.

Q.25 Explain working of electrostatic separator.

Q.26 Explain limitation of Dead weight pressure gauge. Any five.

Q.27 Explain classification of fluids.

Q.28 Explain the characteristic curves of a centrifugal pump.

Q.29 Write a short note on material balance.

Q.30 Explain factors influencing the size of the product.