

Q.32 Describe the equation of continuity.

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SECTION-D

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

Q.33 Explain construction and working of gear pump with its advantages.

Q.34 Explain working of reciprocation double acting air compressor with neat and clean diagram.

Q.35 Describe the method of cushioning in pneumatic cylinder along with its importance.

Q.36 Draw and explain any one hydraulic circuit taking any suitable application.

(200)

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4th Sem. / Production / Mech. (Tool & Die) Engg.

Subject : Hydraulic and Pneumatics system

Time : 3 Hrs.

M.M. : 100

SECTION-A

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

Q.1 A ideal fluid does not possess viscosity (True/False)

Q.2 Name any two real fluid.

Q.3 Draw symbol of 2/2 valve.

Q.4 Draw symbol of pump.

Q.5 In a 4/3 valve the 4 represent the _____ (Port/Position).

Q.6 Write full form of FRL.

Q.7 Unit of pressure is _____.

Q.8 _____ is used in hydraulic system to prevent oil leakage.

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Q.9 Non return valve is a _____ way Valve.

Q.10 Write unit of flow rate.

SECTION-B

Note:Very short answer type questions. Attempt any ten questions out of twelve questions. 10x2=20

Q.11 Define Ideal Fluid.

Q.12 Define specific gravity.

Q.13 Write equation of continuity.

Q.14 Draw symbol of 4/3 solenoid operated control valve.

Q.15 Give units of viscosity.

Q.16 List various hydraulic actuators.

Q.17 List any two applications of compressed air.

Q.18 Name two mountings of pneumatic cylinder.

Q.19 List different types of linear actuators.

Q.20 Write hydraulic pipe designation as per ISO system.

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Q.21 Define Pascal law.

Q.22 Draw symbol of manifold.

SECTION-C

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

Q.23 Write advantages of using fluid as medium of power transmission.

Q.24 List various applications of pneumatic system.

Q.25 Compare hydraulic and pneumatic system.

Q.26 Describe pipe designation system.

Q.27 Classify hydraulic actuators in brief.

Q.28 Explain the importance of filtering, pressure regulation and lubrication unit in a pneumatic circuit.

Q.29 Write the assumption take in Bernoulli's Theorem.

Q.30 Write rules for designing pneumatic circuits.

Q.31 List advantages of Air Motors.

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