Vivekananda College of Engineering & Technology, Puttur [A Unit of Vivekananda Vidyavardhaka Sangha Puttur ®] Affiliated to VTU, Belagavi & Approved by AICTE New Delhi			
CRM08	Rev 1.10	ME	14/11/2022

CONTINUOUS INTERNAL EVALUATION - 1

Dept: ME	Sem / Div: 5th A	Sub: Fluid Power Engineering	S Code: 18ME55
Date: 23/11/2022	Time: 9:30-11:00AM	Max Marks: 50	Elective: N

Note: Answer any 2 full questions, choosing one full question from each part.

QN		Questions	Marks	RBT	CO's
		PART A			
1	a	Explain the components of pneumatic system with neat circuit diagram.	10	L2	CO1
	b	Explain pumping theory with neat sketch.	10	L2	CO2
	c	Differentiate hydraulic and pneumatic system.	5	L2	CO1
2	a	Explain the construction and working of Balanced Vane Pump.	10	L2	CO2
	b	Explain the working of Reservoir system with neat sketch and also explain the importance of Baffle plate in reservoir system.	10	L2	CO1
	c	Explain the importance of Pipes,tubes and hoses in hydraulic stems	5	L2	CO1
3	a	Explain the construction and working of working of Hydraulic Intensifier with neat sketch.	10	L2	CO2
	b	Write the advantages, disadvantages and application of Fluid Power Systems in detail.	10	L2	CO1
	c	Find the flow rate in LPM than an axial piston pump	5	L3	CO2

		delivers at 1200 rpm. The pump has 12,15mm diameter piston arranged on 120mm piston circle dia. The offset angle is set at 10 degree and the volumetric efficiency is 94%.			
4	a	A pump has a displacement volume of 98.4 cm^3.It delivers 0.00152m^3/s at 1000 rpm. and 70 bars. If the prime mover input torque is 124.3 N-m, (i) What is the overall efficiency of the pump? (ii) What is the theoretical torque required to operate the pump?	10	L3	CO2
	b	What is a filter?with the aid of sketch,explain the following :i)Return line filtering ii)Suction line filtering iii)Pressure line filtering.	10	L2	CO1
	c	With a neat sketch explain the working of Gear motor.	5	L2	CO2

6/11/22

Prepared by: Naveenakrishna P V

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