

Register No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



# SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

AN AUTONOMOUS INSTITUTION



Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai

## INTERNAL ASSESSMENT EXAMINATION – II

VI Semester

B.E Mechanical and Mechatronics Engineering (Additive Manufacturing)

19MO601 – Hydraulics and Pneumatics

Regulations 2019

Duration : 1 Hour 30 Minutes

Date : 03.05.2023 Session: FN

Maximum: 50 Marks

Answer ALL questions

PART A - (5 X 2 = 10 marks)				
Q.No	Question	M	CO	BL
1.	List any four applications of accumulators.	2	CO-2	L-2
2.	Why is end cushioning provided in hydraulic cylinder operation?	2	CO-2	L-2
3.	Under what conditions is a hydraulic motor braking system is desirable?	2	CO-3	L-1
4.	What is a fail-safe circuit?	2	CO-3	L-1
5.	What hydraulic system is used in earth moving equipment?			

### PART B - (2 X 13 = 26 marks)

6.	(a)	With a neat diagram explain the spool positions inside a three way valve	13	CO-2	L-3
<b>OR</b>					
	(b)	With a neat diagram explain the operation of solenoid actuated DCV	13	CO-2	L-3
7.	(a)	With neat sketch explain the operation of pump unloading circuit	13	CO-3	L-3
<b>OR</b>					
	(b)	Explain in detail Meter in and Meter out circuit	13	CO-3	L-3
<b>PART C – (1 x 14 = 14 Marks)</b>					
8.	(a)	In what way regenerative circuit works in a drilling machine application?	14	CO-3	L-4
<b>OR</b>					
	(b)	Discuss in detail double pump hydraulic system with circuit diagram	14	CO-3	L-4

\*\*\*\*\*

Faculty In charge

H.o.D