



# SASURIE COLLEGE OF ENGINEERING

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

Near NH544, Coimbatore Bypass, Near Vijayamangalam Tollgate, Tirupur 638056

## **NAAC DOCUMENTS**

## **QUALITY INDICATOR FRAME WORK**

**CRITERION - 1** 

## **CURRICULAR ASPECTS**

IQAC

INTERNAL QUALITY ASSURANCE CELL

## SASURIE COLLEGE OF ENGINEERING





Criterion 1	Curricular Aspects	100

#### Curricular Planning and Implementation (20)

The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

#### **Table of Contents**

S.No	Description
1	Contents - Course File
2	Subject Information Record
3	Time Table
4	Students Name List
5	Syllabus
6	Lesson Plan
7	Test Plan For Subject
8	Result Analysis Of Test
9	Corrective Action Report
10	Quality Objective Monitoring Record
11	Internal Test Question Paper
12	Internal Test Paper
13	Assignment Question Paper
14	Assignment Answer Sheet
15	Test Marks



Department

Department
Subject Code & Name: M E 8694
Class & Batch
Semester

M E 8694

Arabics and Partmatics

THE MECH. CONTENTS - COURSE FILE

S.NO	PARTICULARS	REMARKS
	Time Table	
2	Student name list	
3	Subject Information Record	
4	Syllabus	
5	Lesson Plan	
. 6	Test Plan for the Subject	
7	Result Analysis	
8	Corrective Action Report	
9	Quality objective monitoring record	
10	Internal test mark sheet(Consolidated)	
11	Internal test question paper	
12	Model question paper %	
13	Sample Answer paper for all test(Min-3)	
144	Content beyond the syllabus	
15	Tutorial Class - schedule and content	Soft copy
16	Assignment – schedule and paper	- con copy
17	PPT - handout	Soft copy
18	Video - Animation - Soft copy	Soft copy
19	Question bank	Soft copy
20	Sample university question papers(min 5 QP-recent exam)	The state of the s
21	Personal Log book - Updated	Soft copy
22	Lecture Note	C-A
23	Special Class if any, Approval letter, Schedule, content covered.	Soft copy Soft copy

	Prepared By	Approved By
gn: Ame:	UP Greens.	VLR Gerang
anie:	Vir Krishnam v 19th	Vip-Enshnamuan
	Faculty	HD HD

Dr.M.VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING, Vijayamangalam - 638 056, Tirupur (DI).



## SUBJECT INFORMATION RECORD

n.	
De	partment

: Mechanical Engineering

Subject

: Hydraulice and Paceumatics

Year

: 111

Semester

: <u>U</u>

Last year handled by

:

Percentage of Result (last year)

Quality Objectives

more than 90%. in university Exam.

Reference Book

Fluid power with popl.

1. Majumdar s. R. "oil fordraulis
system - principles and
maintenance.

	Prepared By	Approved By
Sign:	V. P. Gerry	Usp Openay
Name:	VIP Knishnamu Am	Vip Knichnamion
	Paculty	HD

SCL!AMC 18

Dr.M.VIJAYAKUMAR ME., Ph.D.Rev 0.0

PRINCIPAL

SASURIE COLLEGE OF ENGINEERING,

Vijayamangalam - 638 668, Tirupur (Di).



### SAISK BIE HUIMAANHA

CLASS TIME TABLE

Department : Mechanical Engineering

w.e.f :09.03.2022

lass	: 111						a balance	Land Association	Semeste	r :VI	
HOUR	100 N 100 E	Large Toronto		m	IV		V	N N		VII	VIII
DAY/ TIME	m.e0£.e0 70 10.15 a.m.	10.15a.m. TO 11.00a.m.	11.00a.m TO 11.10 a.m	11.10 a.m. TO 11.55 a.m.	11.55 s.m. TO 12.40p.m.	12.40 p.m. TO 1.20 p.m.	1,20 p.m. TO 2,00p.m.	2.00 p.m. 10 2.40p.m,	2,40 p.m. 70 2,50p.m.	2.50 p.m. TO 3.35 p.m.	3.35 p.m. TO 4.20 p.m
DAY 1				HPS		i des éxistes	ANT SE				
DAY 2	HPS		eve shall a		<b>546</b>			1			
DAY3			BREAK	Patrick.	HPS	LUNCH			BREAK		-
DAY4				1007		dhishi	7 1	HPS	88	110	
DAY 5			7.174	HAN.		- Sugg				a II.	HPS

1900	A STATE OF THE STATE OF	of the percent of the control of the	Name of the Staff	No of
S.No	Subject Code	Name of the Subject	E. Landing Co. 164 according	-
- And	ME8694	Hydraulics and Pneumatics	Mr.V.P.Krishnamurthy - AP/Mech	3
•	MEGGS4		TOTAL	5

	Prepared by	Verified by	Authorized by
Sign:	SAMS	V+P- Goleen	Se July 2
Name:	Mr.S.A.Ramesh	Mr.V.P.Krishnamurthy	Dr.E.NANDAKUMAR
***	FACULTY	HD WECK	Principal

College of Englacering

Dr.M.VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 063, Tirupur (Dt).





### Academic Year 2021 - 2022 EVEN Semester

### STUDENTS NAME LIST

SI. No	Register Number	Student's Name	H/D
1	732419114001	Amulraj P	H
2	732419114002	Arunkumar B	Н
3	732419114003	Kavikrishnan P	D
4	732419114004	Kishore B	Н
5	732419114006	Pavendhar S	. н
6	732419114007	Priyadharshan G	D
7	732419114008	Selventhiran S	Н
8	732419114010	Thirunavukkarasu S	D

sams dass boliston

UIP- Poort

Dr.M.VIJAYAKUMAR ME., Ph.D., PRINCIPAL SASURIE COLLEGE OF ENGINEERING,

Vijayamangalam - 638 056, Tirupur (Dt).

power circuits.

 BJECTIVES:
 To provide student with knowledge on the application of fluid power in process, construction an **OBJECTIVES:** 

manuracturing industries.

To provide students with an understanding of the fluids and components utilized in modern industries.

To develop a measurable degree of competence in the design, construction and operation of fluid

FLUID POWER PRINICIPLES AND HYDRAULIC PUMPS Introduction to Fluid power - Advantages and Applications - Fluid power systems - Types offluids - Properties of fluids and selection - Basics of Hydraulics - Pascal's Law - Principles of flow - Friction Work, Power and Torque Problems, Sources of Hydraulic power: Pumping Theory

Pump Classification - Construction, Working Design, Advantages, Disadvantages, Perform Selection criteria of Linear and Rotary Fixed and Variable displacement pumps - Problems.

HYDRAULIC ACTUATORS AND CONTROL COMPONENTS Hydraulic Actuators: Cylinders - Types and construction, Application, Hydraulic cushioning - Hy motors - Control Components: Direction Control, Flow control and pressure control valves -Construction and Operation - Servo and Proportional valves - Applications - Accessories : Resi Pressure Switches - Applications - Fluid Power ANSI Symbols - Problems.

HYDRAULIC CIRCUITS AND SYSTEMS III TINU Accumulators, Intensifiers, Industrial hydraulic circuits - Regenerative, Pump Unloading, Double-Pressure Intensifier, Air-over oil, Sequence, Reciprocation, Synchronization, Fail-Safe, Speed ( Hydrostatic transmission, Electro hydraulic circuits, Mechanical hydraulic servo systems.

PNEUMATIC AND ELECTRO PNEUMATIC SYSTEMS Properties of air - Perfect Gas Laws - Compressor - Filters, Regulator, Lubricator, Muffler, Air Valves, Quick Exhaust Valves, Pneumatic actuators, Design of Pneumatic circuit - Cascade me Electro Pneumatic System - Elements - Ladder diagram - Problems, Introduction to fluidics and pn logic circuits.

TROUBLE SHOOTING AND APPLICATIONS UNIT V Installation, Selection, Maintenance, Trouble Shooting and Remedies in Hydraulic and Pneumatic s Design of hydraulic circuits for Drilling, Planning, Shaping, Surface grinding, Press and Forklift appli Design of Pneumatic circuits for Pick and Place applications and tool handling in CNC Machine tool cost Automation - Hydraulic and Pneumatic power packs. TOTAL:45 PE

**OUTCOMES:** 

Upon the completion of this course the students will be able to

Explain the Fluid power and operation of different types of pumps. CO1

- Summarize the features and functions of Hydraulic motors, actuators and Flow control CO2
- Explain the different types of Hydraulic circuits and systems CO3

Explain the working of different pneumatic circuits and systems CO<sub>4</sub>

Summarize the various trouble shooting methods and applications of hydraulic and CO5 pneumatic systems.

**TEXT BOOKS:** 

1. Anthony Esposito, "Fluid Power with Applications", Pearson Education 2005.

2. Majumdar S.R., "Oil Hydraulics Systems, Principles and Maintenance", Tata McGraw 2001.

REFERENCES:

1. Anthony Lal, "Oil hydraulics in the service of industry", Allied publishers, 1982.

2. Dudelyt, A. Pease and John T. Pippenger, "Basic Fluid Rower", Prentice Hall, 1987.

3. Majumdar S.R., "Pneumatic systems - Principles and maintenance", Tata McGraw Hill, 1995

4. Michael J. Prinches and Ashby J. G. "Power Hydraulics", Prentice Hall, 1989.

5. Shanmugasundaram.K, "Hydraulic and Pneumatic controls", Chand & Co, 2006.

Dr.M. VIJAYAKUMAR ME., Ph.D., SASTIRIE COLLEGE OF ENGINEERING.



## (Accredited by NAAC, Under 21 and 128 status)

: V.P.KRISHNAMURTHY

MECHANICAL ENGINEERING

: HYDRAULICS & PNEUMATICS / MER694

Subject / Code

: 2021-2022

Designation: Associate Professor Semester/ Year: III / VI

No.	Propos	ed Period	Details of Topic Covered	tA	Ref.	Actu: Date	Period	HÓD
-			UNIT- FLUID POWER PRINICIPLES AND HYDRAULIC	PUMP	\$			
1	9.322	-5	Introduction to Fluid power Advantages and Applications	1	1	937	- 5	)
	103.72	5	Fluid power systems – Types of fluids	1	1	10.7.72	- 5	/
3	113.72	#	Properties of fluids and selection	1	1	11.3.20	- 5	
4	14.31 12	-6	Basics of Hydraulics	1	1	1432	20	
5	はよる	5	Pascal's Law, Principles of flow, Friction loss	1	1	15.32	45	
6	16-322	6	Work, Power and Torque Problems	1	1	1630	2 6	
7	17.3.22	-5-	Sources of Hydraulic power : Pumping Theory	1	1	17.3.2	45	1 n
8	18-32	-6	Pump Classification – Construction, Working, Design, Advantages, Disadvantages Rotary, Fixed and Variable	1	1	18:37	46	14
9	21.3.20	-5	Performance, Selection criteria of Linear and Rotary – Fixed and Variable displacement pumps, Problems	1	1	21.37	2 5	#
			UNIT II HYDRAULIC ACTUATORS AND CONTROL CO	MPONE	NTS			
10	223.22	b	Hydraulic Actuators: Cylinders	1	2	2337	16	
11	23.3.22	-5	Types and construction, Application, Hydraulic cushioning	. 1	.2	2332	2/5	0
12	24322	- 1	Hydraulic motors	1.	. 2	D43 12	2 6	
13	25-372	-5	Control Components : Direction Control	1.	2	2530	2 5	
14	20200	6	Flow control and pressure control valves	3	. 2	263.2	2 6	
15	28322	15	Servo and Proportional valves - Types, Construction and Operation	. 3	2	283.7	2 5	*
16	293.20	þ	Servo and Proportional valves Applications	3	-2	29.3.7	12 6	
17	30-3-20	5	Accessories : Reservoirs, Pressure Switches, Applications	3	. 2	3037	25	Q,
16	3/3/20	16	Fluid Power ANSI Symbols – Problems.	3	- 2	3/32	2 6	14
			UNIT III HYDRAULIC CIRCUITS AND SYSTE	MS			1,4	1
15	han.	4 5	Accumulators, intensifiers	1	1 2	4. 44.	02 5	
20	5100	1	Industrial hydraulic circuits, Regenerative	1	. 7	- 1	22 6	1
2	6.422	<i>b</i> 5	Pump Unloading, Double- Pump	3	1	1.4.6		
2	2 742	16	Pressure Intensifier, Air-oyer oil	3		アキュ	THE RESERVE	1/-
2	3 8-42	- 5	Sequence, Reciprocation, Synchronization	3			ns	= -
2	1 94.22	- b	Fail-Safe, Speed Control	3	-	914.5		× 1
2	5 11-9.2	4.5	Hydrostatic transmission	3		2/ 8/14	-	
	16 124.2	4 6	Electro hydraulic circuits	-	_	2 2.4.	STREET, SQUARE, SQUARE	You
	F. V. Carlotte	Table Argent, F. W. W.	and a little and the second of	, ,			6. Au	

SCE/AMC 1.6

Dr.M.VIJAYAKUMAR ME., Ph.D., O1.01.2015
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tirupur (Dt).



## SASURIE DE LE CONTROLLE DE LE

## (Accredited by NAAC, Under 21 and 128 status) LESSON PLAN

Faculty Name

V.P.KRISHNAMURTHY

H

Designation: Associate Professor Semester/ Years III / VI

Department

: MECHANICAL ENGINEERING

Subject / Code

HYDRAULICS & PNEUMATICS / MEB694

Academic Year

1 2021-202

.N.	Prope	Period	Details of Topic Covered	.TA	Ref.	Actua Date	Period	HOD
-	Date	renou	UNIT IV PNEUMATIC AND ELECTRO PNEUMATIC SY	STEM	\$			
28	25.4.22	17	Properties of air	i	i	23.4.00	6	
29	SCAM	10	Perfect Gas Laws - Compressor	1	1	25,48	5	
30	24.00	7	Filters, Regulator, Lubricator, Muffler	3	1	26.4.28	6	
31	25.0.22	5	Air control Valves, Quick Exhaust Valves	3	1	27.4.22	5	
32	28-412	16	Pneumatic actuators	3	1	28.4.72	6	k an
33	294.2	-5	Design of Pneumatic circuit	3	1	29.4.2	5	1
34	30.4.2	4	Cascade method	3	1	30.4.22	+6	
35	0.1.3		Electro Pneumatic System – Elements – Ladder diagram – Problems	3	1	25.22	5	
36	45.20	- 6	Introduction to fluidics and pneumatic logic circuits.	3	1	4.50	H	
			UNIT V TROUBLE SHOOTING AND APPLICATION	NS				
37	5.5.2	45	Installation, Selection, Maintenance In Hydraulic and Pneumatic systems	1	2	5.5.20	45	9
38	65-20	6	Trouble Shooting and Remedies in Hydraulic and Pneumatic systems	i	2	6.5-22	4	1
39	7.5.7	+5	Design of hydraulic circuits for Drilling, Planning,	1	2	2.5.72	5	
40	9.5.0	4 6	Design of hydraulic circuits for Shaping, Surface grinding,	1	2	915222	16	
41	0.5-2	45	Design of hydraulic circuits for Press and Forklift applications.	3	2	10.5-25	15	+
42	11-5-7	2 6	Design of Pneumatic circuits for Pick and Place applications	3	2	115.7		~ -
43	12.52	12 5	Tool handling in CNC Machine tools	3	2	125.22	-5	In
44	13.5.2	y b	Low cost Automation	3	2	135V	2-6	l a
45	14.62	- 5	Hydraulic and Pneumatic power packs.	3	2	14.50	5	11

#### Reference books (Ref):

- 1. Anthony Esposito, "Fluid Power with Applications", Pearson Education 2005.
- 2. Majumdar S.R., "Oil Hydraulics Systems- Principles and Maintenance", Tata McGraw-Hill, 2001.

#### Teaching Alds (TA):

- 1. Black Board with Chalk
- 2. Overhead Projector
- 3. LCD Projector
- 4. Others (Field vists, Charts, Cutset Models)

	Prepared by	Verified by	Authorized by)
ilgn:	N-p-garay	Hf Decemin	621
Name:	Mr. V.P.KRISHNAMURTHY	Mr. V.P.KRISHNAMURTHY	Dr.E.Nandakumar
	Faculty	Hose 198pt of Man	Principal

Callogs of Engineering

SCE/AMC 1.6

Dr.M.VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,

01.01.2



## **TEST PLAN FOR SUBJECT**

Subject

: HPS

Faculty: U.P. Enihra munny

Semester

Year: 111

Department : WECH .

Internal Test-I	21.4.22	21.4-22	
yernal 1387-2	9.5-22	190,-02	
odel Exm	(3.6-22	13-6-22	
			Hernay 1587-2 19:5-22 19:5-12 adel Exam 13:6-22 13-6-22

	Prepared By	
Sign:	NIP. Donnet	Approved By
Name:	N.p. Krishnamun	VIP- Query
<u> </u>	Faculty	Mip knis homo retrice
	,	Word UBI or Mar
SCE/AMC 1.9		
	Rev 0:0	1 Mind and the country of the second
	Dr.M.VIJA	01.01.2015





## **RESULT ANALYSIS OF TEST**

Subject

Class

Semester

Exam details & date

Faculty

Number of students

No. of students attended

No. of students absent

No. of students passed

No. of students failed

Percentage of failures

Date

: 22.4.22

Department

: Meck

: Internal Test 1 & 21.4.72 : Vep Knownum

8

: D

### RESULT DATA:

	Marks	0-25	26-50	51-75	76-90	91-100
No.	of Students	-	-	3	2	2

	Prepared By	Approved By
Sign:	MIP Green	Usp. Greent
Name;	V-P-Kn8mnmun	Ung- Honghmanung
	Faculty	HD

SCE/AMC 1.10

SASURIE Cullaga of Engineering

01,01.2015

Dr.M.VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL SASURIE COLLEGE OF ENGINEERING

Scanned with Com



#### **RESULT ANALYSIS OF TEST**

Subje	ct	HPS
		04/

Date

: 20-5-22

Class

Department,

Semester

Exam details & date

: Enternal Test-29 195-22 : U.P. Con's hin mersphy

Number of students

Faculty

No. of students attended

No. of students absent

No. of students passed

No. of students failed

Percentage of failures

: D

#### **RESULT DATA:**

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	_	4	本	3	1

	Prepared By	Approved By
Sign:	VIP- GROGER	O.P. (Jessen)
Name:	THE long humaning	O. P. Enghnowway
	Faculty	HD

SCE/AMC 1.10

Dr.M.VIJAYAKUMAR ME., Ph.D., PRINCIPAL SASURIE COLLEGE OF ENGINEERING,

Vijayamangalam - 638 056, Tirupur (Dt).

ge of Engineering angeles off the legit 101.20

Scanned with CamScanna-



### **RESULT ANALYSIS OF TEST**

Subject : HP

Date

14.6.2

Class

亚

Department

: Mech

Semester

VI

Exam details & date

model essan

4 13.6.72

Faculty

Number of students

: 8

No. of students attended

: 5

No. of students absent

: 3

No. of students passed

: 3

No. of students failed

: 2

Percentage of failures

40

#### RESULT DATA:

Marks	0-25	26-50	51-75	76-90	91-100
No. of Students	_	2	3	_	

	Prepared By	Approved By
Sign:	Mr Traccort	VIP thereasy
Name:	Up. Kroshnamuson	Usp. Crichnamusory
Harris Commence	Faculty	HD

SASUE 5 10 College or Engineering O1.01.2015

SCE/AMC 1.10

Dr.M. VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING
Vijayamangalam - 638 050



#### **CORRECTIVE ACTION REPORT**

Dept.

Subject

mech

Year

111

Semester

W

S.No	Internal Test	Percentage of marks	Root Cause (Metrics)	Corrective Action	Deadline date	Remarks
1-	<del>2925.</del> I	1004.				
2	工。	100 4				
3	model	60 y.	students one not proporal	Empert omt quistloss one grun		

	. Prepared By	Approved By
Sign:	Vip Jacery	Vip. Prest
Name:	U.P. Knthinmon	VER promo mon
j. k	Paculty	HD.

Collage or Engloaving

Dr.M. VIJAYAKUWAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056 Tirubus (DD)



## QUALITY OBJECTIVE MONITORING RECORD

Department: Mech

Year

Semester

Subject

Quality	Internal Test-I		Interna	l Test-II	Model Test-I		
Objective	Expecting result	Obtained result	Expecting result.	Obtained result	Expecting Result	Obtained result	
790%.	7904	1004	790%.	2000 Y.	7904.	60%.	
			,				
		Quality Objective Expecting result	Objective Expecting Obtained result	Quality Objective Expecting result result result.	Quality Objective Expecting result Obtained result. Obtained result.	Quality Objective Expecting Obtained Expecting Obtained Expecting	

	Prepared By	Approved By
Sign:	VIP. Freely	V+P- teamy
Name;	Usp-/ershnamum	U-cp-King has musty
	Faculty	HD

SCF/AMC 1.11

Dr.M.VIJAKUMAR MRePortor PRINCIPAL SASURIE COLLEGE OF ENGINEERING,

Vijayamangalam - 638 056, Tirupur (Dt).

College of Englacering

T				1		1 1	1
Legister	Number:	1 1	1 1	1 1	1 1	1 1	1
TO Elatel	i vuillibel.		1 1	1 1	1 1	1 1	



	Internal	'est - l	Date/Session	21.04.2022	Marks	50
Course c	ode ME8694	Course Title	Hydraulics and	Pneumatics		
Regulation	on 2017	Duration	1 Hour 30 Minu	tes Academic	Year 2021	-22
Year	m	Semester	VI	Department		hanical
COURS	EOUTCOMES					
COI:		fluids and concept of co				
CO2:	The applications of	of the conservation laws	to flow through pip	es are studied.		
CO3:	To understand the	importance of dimension	onal analysis			
CO4:	To understand the	importance of various	types of flow in pur	nps.		
CO5:	To understand the	importance of various	types of flow in turb	oines.		

Q.No.	Question	CO	BTS
0	PART A (Answer all the Questions 10 x 2 = 20 Marks)		
1	Define fluid power.	COI	R
2	State Pascal's law.	COI	U
3	What is the function of hydraulic fluid?	CO2	R
4	Define pump.	CO2	R
5	What is meant by fixed displacement and variable displacement pump?	CO2	R
6	What is meant by a balanced vane pump?	CO2	R
7	Define mechanical efficiency of a pump	CO2	R
8	Draw the graphical symbols of the following pumps i) Fixed displacement ii) Pressure compensated iii) Variable displacement	COI	U
9	Define demulsibility	COI	R
10	Why water is not used as hydraulic fluid in fluid power systems?	CO2	A
lla	I. Explain in details about the application of Pascal law with neat sketch.  I. Explain with neat sketch of the basic hydraulic system and its components.	COI	R
1	OR		
116	Write Short notes on the following i) Laminar flow and turbulent flow ii) Energy losses	COI	U
12a	<ol> <li>in values and fittings iii) Darcy's Equation.</li> <li>Explain in details about the properties of hydraulic fluids.</li> <li>Define pumping theory. What are types of positive displacement pump? Explain Unbalanced vane pump.</li> </ol>	CO2	R
	OR	201	
12b	<ol> <li>Explain the working principle of following pumps with neat sketch i) Lobe pump ii) Screw pump iii) External Gear pump</li> <li>(ii) Find the flow rate that an axial piston pump delivers at 1000 rpm. The pump has nine 15 mm diameter piston arranged on a 12 mm diameter piston circle. The offset angle is set at 10° and the volumetric efficiency is 94%.</li> </ol>	COI	A

21/4/12 **Course Faculty** 

(Name /Sign / Date)

V. P. Krishnamouthy

(Name /Sign / Date)

(Name /Sign / Date)

Dr.M.VIJAYAKUMAR ME., Ph.D.,

DFREICIPAL

SASURIE COLLEGE OF ENGINEERING, May .

Vijayamangalam - 638 056, Tirupur (Dt).



Name	PKaviknish	nan			Year/ Semester/Section			1 /Vi
Register number	782419114003		21-4-22	-	Control of the Contro			mech
Course code	ME 8694	Course Title	HYDRA	UL	ICS AM	od Pa	EUM	atics
Internal Asse	ssment Test	IAT 1	IAT 2		IAT 3		Model	
	gnature of the Invigi				V 2915	102 1	N.V	ellin

Part A								
Q. No.	1	Marks	Q. NO.	<b>V</b>	a Marks	1	b Marks	Total Marks
1	-	2	11	1	6AU	+	0	10
2	-	12	12			V	7 7	7
3	-	72	13					
4	V	12	14					
5	~	72	15					
6		-	16					
7						G	Frand Total	17
8		-	/		21			) part
9				1			W.P. W	22.041
10	V	12			50	/ \	P. Kery	22 Hill ing musth I Signature
Tota	ıl	12	Gi	and	Total		of the Exami	iner with date

		To be fill	led by the e	examiner			-
Course Outcomes	Park Inn.	2	3	4	5	6	Total
Marks allotted	23	27	-	,	1	^	50
Marks Obtained	14	15	-	-	•		29
						V.Par	namuntly of Signature

Dr.M.VIJAYAKUMAR ME., Ph.D.,
PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tirupur (Dt).



## DEPARTMENT OF MECHANICAL ENGINEERING

## **Assignment Question Paper**

		A SSI SILITION	
	Assignment	- 01	Date of Issue: 08.04.2022 Marks 10
Course code	ME8694	Course Title	HYDRAULICS AND PNEUMATICS  Date of Submission: 11.04.2022
Year	III YEAR	Semester/Section	06 Date of Susmittee

-		CO
Q.No	Questions	COI
2.110	Describe fluid power.	COI
7		CO2
1	" at a professed for neavy work than pro-	CO2
	Why are the hydraulic system is preferred to mean and the hydraulic systems.  Name the basic component which is employed in the hydraulic systems.	CO2
,	Name the basic component which is employed in the fluid power systems  Discuss the properties of hydraulic fluids which is used in the fluid power systems	COI
5	Define demulsibility.	CO2
7		COI
8	14th wester is not used as hydraulic fluid in fluid power systems?	CO2
9	Differentiate fixed and variable displacement pump.	CQ2
10		COI
11	The state of the s	COI
12	t sketch about Working philiopic of basis	COI
13	the and by the same of the principle of the same of th	CO2
14	- (i) Polanced Vane pullip. (ii) Ottomari	- CO2
15	Discuss the following (i) Balanced vano partial Explain the external & Internal gear pump with suitable sketch	

V: P. Woe & 4/n

Name and Signature of the Faculty Incharge

V. P. Krishnamwithy

HoD/MECH

DEM VINAVAKIIMAR HE BED

Dr.M. VINAYAKUMAR ME., Ph.D PRINCIPAL SASURIE COLLEGE OF ENGINEERING,

Vijayamangalam - 638 056, Tirupur (Dt).



#### DEPARTMENT OF MECHANICAL ENGINEERING

### **Assignment Answer Sheet**

Name of the Student: 3. Priyadharshown AU Register Number: 7324 [911400)

	Assignment	-01	Date of Issue:	08.04.2022	Marks	10
Course code	ME8694	Course Title	HYDRAULICS	AND PNEUMAT	ics	
Year	III YEAR	Semester/Section	06	Date of Submiss	ion: 11.04.20	22

Q.No	Questions	CO
ì	Describe fluid power.	CO1
2	Define Pascal law.	CO1
3	Why are the hydraulic system is preferred for heavy work than pneumatic system?	CO2
4	Name the basic component which is employed in the hydraulic systems.	CO2
5	Discuss the properties of hydraulic fluids which is used in the fluid power systems	CO2
6	Define demulsibility.	COI
7	Define pump.	CO2
8	Why water is not used as hydraulic fluid in fluid power systems?	CO1
9	Differentiate fixed and variable displacement pump.	CO2
10	List the losses in the fluid power systems.	CO2
11	Explain with neat sketch about working principle of basic hydraulic system	COI
12	Explain with neat sketch about working principle of basic pneumatic system	COI
13	Explain the pumping theory & Lobe pump with suitable sketch.	COI
14	Discuss the following (i)Balanced vane pump. (ii) Unbalanced vane pump	CO2
15	Explain the external & Internal gear pump with suitable sketch	CO2

Mark Allocation

Rubrics	Marks Allocated	Marks obtained	
Content Quality	6	6	
Presentation Quality	2	2	
Timely submission	2	2	
Total marks	10	10	

Name and Signature of the Faculty Incharge

V. P Krishnamen Hoy

HoD/MECH

AVAKENJARANENEWOLJA

PRINCIPAL
SASURIE COLLEGE OF ENGINEERING,
Vijayamangalam - 638 056, Tirupur (Dt).

## Academic Year 2021 - 2022 EVEN Semester

### HPS INTERNAL TEST MARK

Department: III MECH		21.4.22	19.5.22	13.6.22	
Sl. No	Register Number	Student's Name	I.T-1	1.T-2	MODEL
1	732419114001	Amulraj P	86	78	65
2	732419114002	Arunkumar B	92	88	AB
3	732419114003	Kavikrishnan P	58	60	47
4	732419114004	Kishore B	AB	68	AB
5	732419114006	Pavendhar S	80	70	32
6	732419114007	Priyadharshan G	92	94	66
7	732419114008	Selventhiran S	60	52	AB
8	732419114010	Thirunavukkarasu S	66	78	58

UP- fraceof

