

COLLEGE OF ENGINEERING AND TECHNOLOGY

Thirupachur-631203, Tiruvallur TK & DT
Approved by AICTE New Delhi & Affiliated to Anna University, Cheunal
(A Telugu Minority Institution)

21MECHVAC02 - CRYOGENIC ENGINEERING EVENT REPORT

Name of the Course: CRYOGENIC ENGINEERING

Name of the Instructor: Mr.M. Vinoth, Assistant Professor, SVCET

Mr.P. Tamilselvan, Assistant Professor, SVCET

Year and Branch: II,III, & IV-MECHANICAL ENGINEERING

Duration of Course: 32 Hrs (04.04.2022 - 09.04.2022)

SUMMARY OF THE EVENT:

The Course was inaugurated on 04.04.2022 at 8.30 am by our respectable Principal and HOD. As per the Course plan session was started and went smooth for the Remaining days. On the last day by 2.30 09.04.2022 pm the course was Completed Successfully.

During the Six Days of the program Students were participated with enthusiasm and they finally gained a knowledge on "Cryogenic Engineering"

ASSESMENT MODE:

No of Students Enrolled: 122

Scheme of Exam: Offline

No of Students appeared: 122

No of Students Passed:122

Date of Exam: 09.04.2022

OUTCOME:

· The student can identify different areas of Cryogenic Engineering

Can find the applications of all the areas in Industries.

COORDINATOR

(Mr.S.Sridharan)

PRINCIPAL

Sri Venkateswara College of Engineering and Technology, Thirupachur, Thiruvallur - 631 203

HOD / MECHANICAL

(Mr.M.Vinoth)



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21MECHVAC02 - CRYOGENIC ENGINEERING TEST QUESTIONS

- Cryogenics deals with which type of product?
 - a) High temperature
 - b) Low temperature
 - c) High pressurize
 - d) Low pressurize
- 2. Which operation mentioned below is associated with Claude cycle?
 - a) External refrigeration
 - b) Three- stage cascade cycle
 - c) High-speed expander
 - d) Low speed expander
- 3. What is the use of ammonia in Linde cycle?
 - a) Precooling
 - b) Liquefaction
 - c) Refrigeration
 - d) Compression of feed stream
- 4. What is the composition of air entering the cold exchanger in Linde-Frankl cycle?
 - a) O₂ and N₂
 - b) Only N₂
 - c) H₂O and CO₂
 - d) Only H2O
- 5. Which process does not use air expansion for refrigeration?
 - a) Claude operated process
 - b) Elliott process
 - c) Turbo-reciprocating process
 - d) Liquefaction process
- 6. Which of The following is a critical temperature for Carbon dioxide?
 - a) 32-degree centigrade
 - b) 30.98-degree centigrade
 - c) 40-degree centigrade
 - d) 30.91 degree Kelvin
- 7. Which of the following is Greater?
 - a) Boyle's temperature
 - b) Boyle's temperature = critical temperature
 - c) Critical temperature
 - d) Boyle's temperature = 1/critical temperature

8.A gas that is liquefied by applying pressure below critical temperature is called substance.

_ or the

a) vapor

- b) liquid
- c) solid
- d) plasma





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9. If the value of a is greater, what does it mean?
a) the gas liquefies easily
b) the gas cannot liquify easily
c) gas obeys ideal gas law
d) gas particles have random motion
10. In van der Waal's equation, b is known as
a) volume constant
b) pressure constant
c) volume correction
d) pressure correction 11. What is the appearance of liquid nitrogen?
a) Yellow
b) Colorless
c) Bluish-gray
d) Black
12. How can cryogenic temperatures lower than 30,000K be measured?
a) Silicon diode
b) Calorimeter
c) Superconducting granules
d) Roton detector
13.Cold working is generally carried out
a) Below melting point
b) Above recrystallization temperature
c) At room temperature
d) Cryogenic temperature
 involves hammering of heated bars inside closed impression dies.
a) Press forging
b) Drop forging
c) Hammer forging
d) Upset forging
15. What is the major difference between kellogg and Linde-Frankl process?
a) Recuperative heat exchanger
b) Catalytic oxidation chamber
c) Scrubbing tower
d) Refrigeration
16. Cryogenics deal with temperatures around
a) -50°C
b) -90°C
c) -180°C
d) -250°C
17. Liquid oxygen is produced by method. a) Batch distillation COLLEGE ON method.
b) Steam distillation PRINCIPAL
d) Fractional distillation Pin: 631 203
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- 18. Which of the following is a hot working process?
 - a) Stamping
 - b) Squeezing
 - c) Forging
 - d) Bending
- 19. Which of the following is a characteristic of hot rolling?
 - a) Refines grain structure
 - b) Economic
 - c) Slow speed
 - d) Uniform size
- 20. What is the boiling point of nitrogen?
 - a) 20.27
 - b) 27.09
 - c) 77.36
 - d) 111.7

COORDINATOR (Mr.S.Sridharan)

Thirupachur Pin: 631 203

HOD / MECHANICAL (Mr.M.Vinoth)



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DIMECHVACOD - CRYOGENIC ENGINEERING

21MECHV	TEST QUESTIONS
Student Reg. No. & Name: 112420 Sem & Year: O 4 \$ 11	0114418 \$ R. Yokesh Date: 914/2022
1. Cryogenics deals with which type of a) High temperature b) Low temperature c) High pressurize d) Low pressurize 2. Which operation mentioned below a) External refrigeration b) Three- stage cascade cycle c) High-speed expander d) Low speed expander	18
3. What is the use of ammonia in Line a) Precooling b) Liquefaction c) Refrigeration d) Compression of feed stream	n
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8.A gas that is liquefied by applying pressure below critical temperature is called of	the
substance.	
a) vapor	
b) liquid	
c) solid	
d) plasma	
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b) Catalytic oxidation	
c) Scrubbing tower	
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d) Refrigeration Sri Venkateswara College of Engineering and Tochnology	
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Thirupachur, Thiruvallur - 631 203	
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21MECHVAC02 - CRYOGENIC ENGINEERING

Course Code	21MECHVAC02	
Name of the Course	CRYOGENIC ENGINEERING	
Duration of the Course	32 HOURS	
Academic Year	2021-22	
Period of the Course	04.04.2022 TO 09.04.2022	

STUDENT EVALUATION SHEET

s.no	YEAR	REGISTER NUMBER	NAME OF STUDENTS	ATTENDANCE	MARK
1	11	112420114417	VISWANATHAN A	32	80
2	n	112420114418	YOKES R	32	80
3	11	112420114419	YUVARAJ N	32	85
4	n	112420114420	YUVARAJ R	32	90
5	11	112420114421	YUVARAJ T	32	95
6	11	112420114422	EZEKIEL A	32	80
7	П	112420114423	JAGADEESHWARAN Y	32	85
8	II	112420114424	NITHISH M	32	80
9	Ш	112419114001	ABINASH.S	32	85
10	Ш	112419114002	ANGARAJA.K	32	80
11	III	112419114003	BHUVANESH M	32	88
12	Ш	112419114004	CHANDRU M	32	90
13	Ш	112419114005	CHARLESS M	32	98
14	III	112419114006	DEVA SUNDAR	32	95
15	111	112419114007	DHANUSH M	32	85
16	III	112419114009	DINESH KUMAR M	32	88
17	Ш	112419114010	GANAPATHY K	32	93
18	Ш	112 STEERON	GAYATHRI V	32/	95

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SINO	YEAR	REGISTER NUMBER	NAME OF STUDENTS	ATTENDANCE	MARK
19	m	112419114012	HARIHARAN R	32	80
20	m	112419114013	HARIHARAN S	32	95
21	m	112419114014	KARTHICKRAJ V	32	85
22	111	112419114015	KRISHNAMOORTHY D	32	80
23	III	112419114016	MANIKANDAN M	32	80
24	m	112419114017	MANISHANKAR B	32	90
25	ııı	112419114018	MOHAMMED IMRAN D	32	93
26	111	112419114019	MUTHAMIZH I	32	80
27	Ш	112419114021	NAVEEN G	32	85
28	m	112419114022	PRAKASH K	32	85
29	m	112419114024	SARAVANAN J	32	80
30	III	112419114025	VENKATESH I	32	85
31	III	112419114026	YUVARAJ M	32	90
32	ш	112419114301	ADITHIYAN V	32	90
33	Ш	112419114303	ANISH S	32	95
34	Ш	112419114304	BEEMRAO D	32	95
35	III	112419114306	BHARATH P	32	80
36	III	112419114307	DILLI BABU DS .	32	89
37	Ш	112419114308	DILLI BABU S	32	95
38	III	112419114309	DINESH M	32	90
39	Ш	112419114310	DINESH KUMAR T	32	95
40	III	112419114311	ESSAKICHANDRAN P	32	95
41	Ш	112419114312	GANESH R	32	90
42	Ш	112419114314	HARISH KUMAR V	32	80
43	III	1128TURIDE 8/5	JAGADISH R	32/	87

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s.NO	YEAR	REGISTER NUMBER	NAME OF STUDENTS	ATTENDANCE	MARK
44	111	112419114316	JENESH KUMAR M	32	85
45	m	112419114317	KANAGARAJ G	32	85
46	111	112419114318	MURALI K	32	95
47	m	112419114319	NAVEEN KUMAR R	32	90
48	111	112419114320	NAVEEN KUMAR B	32	85
49	m	112419114321	PARTIBAN S	.32	90
50	m	112419114322	PRADEEP K	32	90.
51	111	112419114323	PRAVEEN P	32	85
52	m	112419114324	RAJAMANI P	32	90
53	111	112419114325	RAJKUMAR J	32	90.
54	111	112419114326	RAJAKUMAR S	32	90.
55	111	112419114327	RAKESH S	32	85
56	111	112419114328	SARAVANAN A	32	80
57	Ш	112419114329	SATHEESH MB	32	95
58	Ш	112419114330	SEENU KUMAR K	32	98
59	III	112419114331	SETHUPANDIAN K	32	80
60	III	112419114332	VIKRAM N	32	90
61	IV	112418114001	ABDUL HAMEED J	32	95
62	IV	112418114002	ABEL J	32	95
63	IV	112418114003	ANANDHAN V	32	85
64	IV	112418114004	ARAVINTH S	32	90
65	IV	112418114006	ВАГАЛ М	32	92
66	IV	112418114007	BRAITON P	32	95
67	IV	112418114008	CHANDRU K	32	95
68	IV	LESEL DO	CHANDRU M	32/	80



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S.NO	YEAR	REGISTER NUMBER	NAME OF STUDENTS	ATTENDANCE	MARK
69	IV	112418114010	DEVAJEEVAN P	32	85
70	IV	112418114011	DEVAPRIYAN A	32	80
71	IV	112418114012	DHAVID EARNEST ALLWIN L	32	90
72	IV	112418114013	GOPALAKRISHNAN K	32	95
73	IV	112418114014	HEMANTH I	32	
74	IV	112418114015	JAISANKAR P	32	90
75	IV	112418114016	JAYAPRAKASH S	32	90
76	IV	112418114017	KAMALA KANNAN S	32	
77	IV	112418114018	KAMESH R	32	96
78	IV	112418114019	KARAN T	32	9 0 85
79	IV	112418114020	KISHORE V	32	85
80	IV	112418114021	LOGESH V	32	90
81	IV	112418114023	NAVEENKUMAR N	32	95
82	IV	112418114024	NIKESH D	32	
83	IV	112418114025	PERARASAN A	32	90
84	IV	112418114026	RAKUL M	32	95
85	IV	112418114027	SANJAY A	32	
86	IV	112418114028	SANJAY H	32	95_ 90
87	IV	112418114029	SANTHOSH P S	32	85
88	IV	112418114030	SARANKUMAR E	32	12 <u>2</u> 25 (155)
89	IV	112418114031	SATHISH P		85_
90	IV	112418114032	SATHISH S	32 32	80
91	IV	112418114033	SELVAM D	32	_ /
92	IV	112418114034	SHIJIN M	32	80
93	IV	5 <u>k</u> 4 <u>5</u> 95.8714035	SIVAKUMAR B	32	90
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s.no	YEAR	REGISTER NUMBER	NAME OF STUDENTS	ATTENDANCE	MARK
94	IV	112418114036	TAMIL ARASAN M	32	85
95	IV	112418114038	VIGNESH A	32	90
96	IV	112418114040	VINOTH KUMAR M	32	90
97	IV	112418114041	VINOTH KUMAR S	32	95
98	IV	112418114301	AKASH.M	32	9.5
99	IV	112418114304	BHARATHI RAJ.N	32	90
100	IV	112418114305	BUVENESH KUMAR.N	32	95
101	IV	112418114306	CHANDRU.M	32	85
102	IV	112418114308	DINESHKUMAR.V	32	80,
103	IV	112418114311	KARTHIKEYAN.R	32	95
104	IV	112418114313	LAKSHMANAN.M	32	90
105	IV	112418114314	MAHESHWARAN.S	32	80
106	IV	112418114315	MOHAN.C	32	80
107	IV	112418114316	NAGARAJAN.S	32	95
108	IV	112418114317	NANDHAN.S	32	95
109	IV	112418114318	NAVEEN.A	32	80
110	IV	112418114321	PRATHAP.L	32	90
111	IV	112418114323	RAGUL.S	32	90
112	IV	112418114324	RAJESH.R	32	95
113	IV	112418114325	RAKESH.K	32	90
114	ΙV	112418114326	RAMAN.D	32	85
115	IV	112418114327	ROSHAN RAJ.R.M	32	95
116	IV	112418114328	SARATH.Y	32	90
117	IV	112418114332	SOUNDARRAJ.E	32	90
118	IV	1831) \$PF4933	SUGUMAR.J	32/	95



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S.NO	YEAR	REGISTER NUMBER	NAME OF STUDENTS	ATTENDANCE	MARK
119	IV	112418114334	SURENDAR.B	32	85
120	IV	112418114336	VENKAT.M.A	32	85
121	IV	112418114338	VINOTH.V	32	95
122	IV	112418114339	YADESH.B	32	90

COORDINATOR (Mr.S.Sridharan) HOD / MECHANICAL (Mr.M.Vinoth)

PRINCIPAL

Sri Venkateswara College of Engineering and Technology,

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DEPARTMENT OF MECHANICAL ENGINEERING CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Ms R. YOKESH & (112420114418)

Department of Mechanical Engineering has successfully completed Value

Added Course titled 'CRYOGENIC ENGINEERING' held from 04.04.2022

to 09.04.2022

CO-ORDINATOR

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Thirupachur, Thiruvallur - 631 203

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This is to certify that Mr/Ms M.NITHISH (112420114424)

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CO-ORDINATOR

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Sri Venkateswara College of
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DEPARTMENT OF MECHANICAL ENGINEERING CERTIFICATE OF PARTICIPATION

SK COLLEGE

This is to certify that Mr/Ms K. PRRKASH (112419114022)

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CO-ORDINATOR

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CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Ms P. BARATH (112419114306)

Department of Mechanical Engineering has successfully completed Value

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CO-ORDINATOR

Thirupachur Pin: 631 203

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CO-ORDINATOR

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CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Ms S.SATHISH (112418 114032)

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Added Course titled 'CRYOGENIC ENGINEERING' held from 04.04.2022

to 09.04.2022

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Sri Venkateswara College of Engineering and Technology, Thyspachur, Thiruvallur, 431 203

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PRINCIPAL

CO-ORDINATOR