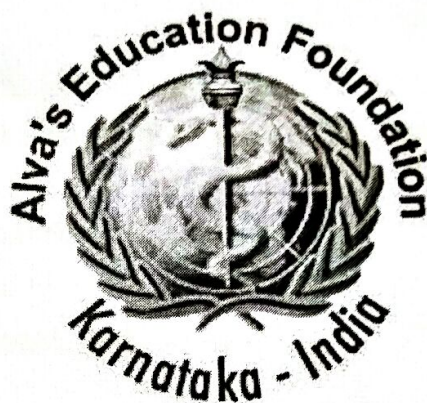


ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar – 574225, Moodbidri.

Dakshina Kannada Karnataka, India.



Department of Mechanical Engineering

CERTIFICATION COURSE

On

“Advanced Thermal Engineering”

FOR THE ACADEMIC YEAR

2014-15



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225

Phone: 08258-262725 Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Date: 08/11/2015

APPROVAL LETTER

To,

The Principal,
AIET, Moodbidri

Respected Sir,

Sub: - Approval for Organizing the Students Certification/Training Program on "Applied Thermal Engineering"-Reg.

With reference to the subject cited above, I would like to bring to your kind notice that, the Department is planning to host a **Five day's** Student Training Program/ hands on workshop on "**Applied Thermal Engineering**" from "**25th January 2015**" to "**29th January 2015**".

Kindly consider the above request and approve the same for further proceedings.

Thanking you Sir.


Coordinator:

Mr. Hemanth S


Head of the Department:

Prof. K. V. Suresh

Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225


Principal:

PRINCIPAL

Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K

Place: AIET, Moodbidri.



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225

Phone: 08258-262725 Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Date: 20/1/2015

CIRCULAR

All the students are hereby informed that there is a certification course on advanced thermal engineering which is scheduled from 25.01.2015 to 29.01.2015, which is conducted by Dr. Satyanarayana & Mr. Shankarappa K, AIET, Dept of mechanical engineering, moodbidri. Interested students kindly register your names on or before 15.01.2020.


Head of the Department:
H. O. D.

Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOOBBIDRI - 574 225

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri, D.K - 574225

Phone: 08258-262725, Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Applied Thermal EngineeringWORKSHOP-- ATTENDANCE REPORT-2014-15												
SL N	USN	NAME(Caps Only)	25-01		26-01		27-01		28-01		29-01	
			F N	A N	F N	A N	F N	A N	F N	A N	F N	A N
1.	4AL11ME078	Rakesh U Shenoy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2.	4AL11ME079	Rakshan C Shetty	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	4AL11ME081	RanjithNayak	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.	4AL11ME082	Raveesh R	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.	4AL11ME083	Rijo KO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.	4AL11ME085	RoyanCorda	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7.	4AL11ME086	S.Sudeep	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8.	4AL11ME088	Sampath Kumar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9.	4AL11ME089	Sandeep E.R	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10.	4AL11ME090	Sarath.P	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11.	4AL11ME092	SharanappaMalawad	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12.	4AL11ME093	ShettyAbhilashSeetaram	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
13.	4AL11ME095	ShettyShobith Kumar S	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14.	4AL11ME096	ShettySujithJayaram	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15.	4AL11ME097	ShettyVinayak Harish	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
16.	4AL11ME098	Shivakumar Gouda K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
17.	4AL11ME099	Shivaraj B K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18.	4AL11ME100	Shreyas G Rao	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19.	4AL11ME104	SudathrajKomba K	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
20.	4AL11ME105	Sujnan Kumar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
21.	4AL11ME106	Sukesh	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
22.	4AL11ME107	Sunil Kumar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
23.	4AL11ME108	Surathkal Mohammed A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
24.	4AL11ME109	ThingalayaShreyasSukum	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
25.	4AL11ME112	Tomson Thomas	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Coordinator

HoD



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri, D.K - 574225

Phone: 08258-262725, Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

26.	4AL11ME113	Uddappa N K	L	L	A	L	L	L	A	L	L
27.	4AL11ME115	Vaishnav. G	A	L	L	L	A	L	L	L	A
28.	4AL11ME117	Varun C.V	L	A	L	L	L	L	A	L	L
29.	4AL11ME118	Venugopal	L	L	L	L	L	L	L	L	L
30.	4AL11ME119	Vinayaka.S	L	A	L	L	L	L	A	L	L
31.	4AL11ME120	Visakh.B	L	A	L	L	L	L	L	L	L
32.	4AL11ME121	Vishak K	L	L	L	L	L	L	L	L	L
33.	4AL11ME123	DnyandeepVernekar	A	L	A	L	L	L	L	L	L
34.	4ALME11408	Manendra M	L	L	L	L	L	L	L	L	L
35.	4ALME11409	ManendraNayak	A	L	L	L	A	L	L	L	A
36.	4AL11ME414	Rahul C Kiragi	L	L	L	L	L	L	A	L	L
37.	4AL12ME400	AbhijitMadiwal	L	L	A	L	L	L	L	A	L
38.	4AL12ME401	Ananda K	A	L	L	L	L	L	L	L	A
39.	4AL12ME402	B Santhoshakumar	L	A	L	L	A	L	A	L	A
40.	4AL12ME403	Chandrasah P Shetty	A	L	L	L	L	L	L	A	L
41.	4AL12ME404	Chandrakumar H B	A	L	L	L	A	L	L	L	A
42.	4AL12ME405	GurupadappaHuded	L	A	L	L	A	L	L	A	L
43.	4AL12ME406	Hemantha Kumara B	L	L	L	L	L	L	L	A	L
44.	4AL12ME408	LaxmeeshMoger	L	A	L	L	A	L	L	L	L
45.	4AL12ME409	MalateshMadivalar	L	L	L	L	A	L	L	A	L
46.	4AL12ME410	Manjunatha M R	A	L	L	L	A	L	A	L	L
47.	4AL12ME411	Manojakumar	L	L	L	A	L	L	A	L	A
48.	4AL12ME412	Lokeshareddy N	L	L	L	L	L	L	L	A	L
49.	4AL12ME413	Pamapapathi	A	L	L	L	L	L	L	L	L
50.	4AL12ME416	PrashanthaShetty	L	L	L	L	A	L	L	L	A
51.	4AL12ME417	Punithkumar N R	L	L	A	A	L	L	A	L	L
52.	4AL12ME418	Sandeep	L	L	A	L	L	L	L	L	A
53.	4AL12ME419	ShantisagarKundur	A	L	L	L	L	L	L	A	L

Coordinator

HoD

India - India



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri, D.K - 574225
Phone: 08258-262725, Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Applied Thermal Engineering course				
SLN	USN	NAME(Caps Only)	Marks scored	
			Max Marks[20]	Obtained Marks
1.	4AL11ME078	Rakesh U Shenoy	20	9
2.	4AL11ME079	Rakshan C Shetty	20	9
3.	4AL11ME081	RanjithNayak	20	9
4.	4AL11ME082	Raveesh R	20	9
5.	4AL11ME083	Rijo KO	20	9
6.	4AL11ME085	RoyanCorda	20	9
7.	4AL11ME086	S.Sudeep	20	9
8.	4AL11ME088	Sampath Kumar	20	9
9.	4AL11ME089	Sandeep E.R	20	9
10.	4AL11ME090	Sarath.P	20	9
11.	4AL11ME092	SharanappaMalawad	20	9
12.	4AL11ME093	ShettyAbhilashSeetaram	20	9
13.	4AL11ME095	ShettyShobith Kumar S	20	9
14.	4AL11ME096	ShettySujithJayaram	20	9
15.	4AL11ME097	ShettyVinayak Harish	20	9
16.	4AL11ME098	Shivakumar Gouda Kengal	20	9
17.	4AL11ME099	Shivaraj B K	20	9
18.	4AL11ME100	Shreyas G Rao	20	9
19.	4AL11ME104	SudathrajKomba K	20	9
20.	4AL11ME105	Sujnan Kumar	20	9
21.	4AL11ME106	Sukesh	20	9
22.	4AL11ME107	Sunil Kumar	20	9

Coordinator

HoD



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri, D.K - 574225
Phone: 08258-262725, Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING



23.	4AL11ME108	Surathkal Mohammed	20	8
24.	4AL11ME109	ThingalayaShreyasSukumar	20	0
25.	4AL11ME112	Tomson Thomas	20	0
26.	4AL11ME113	Uddappa N K	20	9
27.	4AL11ME115	Vaishnav. G	20	0
28.	4AL11ME117	Varun C.V	20	0
29.	4AL11ME118	Venugopal	20	9
30.	4AL11ME119	Vinayaka.S	20	0
31.	4AL11ME120	Visakh.B	20	0
32.	4AL11ME121	Vishak K	20	0
33.	4AL11ME123	DnyandeepVernekar	20	0
34.	4ALME11408	Manendra M	20	0
35.	4ALME11409	ManendraNayak	20	0
36.	4AL11ME414	Rahul C Kiragi	20	0
37.	4AL12ME400	AbhijitMadiwal	20	0
38.	4AL12ME401	Ananda K	20	9
39.	4AL12ME402	B Santhoshakumar	20	9
40.	4AL12ME403	Chandrasahsa P Shetty	20	9
41.	4AL12ME404	Chandrakumar H B	20	0
42.	4AL12ME405	GurupadappaHuded	20	9
43.	4AL12ME406	Hemantha Kumara B	20	0
44.	4AL12ME408	LaxmeeshMoger	20	0
45.	4AL12ME409	MalateshMadivalar	20	0
46.	4AL12ME410	Manjunatha M R	20	0



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
Shobhavana Campus, Mijar, Moodbidri, D.K - 574225
Phone: 08258-262725, Fax: 08258-262726
DEPARTMENT OF MECHANICAL ENGINEERING

47.	4AL12ME411	ManojakumarDharmannav	20	Ø
48.	4AL12ME412	Lokeshareddy N	20	Ø
49.	4AL12ME413	Pamapapathi	20	Ø
50.	4AL12ME416	PrashanthaShetty	20	Ø
51.	4AL12ME417	Punithkumar N R	20	Ø
52.	4AL12ME418	Sandeep	20	Ø
53.	4AL12ME419	ShantisagarKundur	20	Ø
54.	4AL12ME420	Shashank KM	20	Ø
55.	4AL12ME421	Sudheeraj	20	Ø
56.	4AL12ME422	R Vikas	20	Ø
57.	4AL12ME423	Vinoda B Y	20	Ø
58.	4AL12ME424	Yamanoorappa	20	Ø
59.	4AL10ME001	A Sridhar	20	Ø
60.	4AL10ME015	Ashik B Shetty	20	Ø
61.	4AL10ME109	Tony Urmise	20	Ø
62.	4AL11ME016	AnishKoshy	20	Ø
63.	4AL11ME023	Bharath M M	20	Ø
64.	4AL11ME041	Hebin Abraham Oommen	20	Ø
65.	4AL11ME053	Lennon SundeepTellis	20	Ø
66.	4AL11ME061	Midhun Mathew	20	Ø
67.	4AL11ME094	ShettyAbhishekSudarshan	20	Ø
68.	4AL11ME111	Tinu C.K	20	Ø
69.	4AL11ME124	Mithun Raj	20	Ø
70.	4AL12ME002	Adithyan K M	20	Ø

Coordinator

HoD

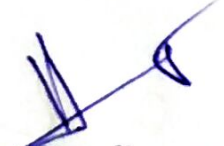


ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri, D.K - 574225
Phone: 08258-262725, Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

71.	4AL12ME003	AjeetBabaleshwar	20	Ø
72.	4AL12ME004	Akhil Sunny	20	Ø
73.	4AL12ME005	Akshaya K	20	Ø
74.	4AL12ME006	Albin James	20	Ø
75.	4AL12ME007	Aman Das	20	Ø
76.	4AL12ME009	AnupNihalD'souza	20	Ø
77.	4AL12ME010	Anup R	20	Ø
78.	4AL12ME011	Ashfan Ahmed Sheikh	20	Ø
79.	4AL12ME013	Ashwin Carlton Salis	20	Ø
80.	4AL12ME015	Bharatha Kumar N J	20	Ø


Coordinator


HoD



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225

Phone: 08258-262725 Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

FEEDBACK FORM

Five days Students Training Program

On

"Applied Thermal Engineering"

For the following areas, please indicate your rating from 1 to 5:

1=strongly Disagree 2=Disagree 3=neither agree nor disagree 4=Agree 5=strongly Agree

SN	Topics	1	2	3	4	5
A.	Content					
1	Understood the basics of Applied Thermal Engineering					✓
2	Understood the fundamental					✓
3	Able to apply the Applied Thermal Engineering Systems techniques for the problems at the hand.			✓		
4	Understood the fundamentals of test document writing.		✓			
5	Able to write effective test documents.				✓	
B	Presentation					
6	Instructor's knowledge					✓
7	Instructor's presentation style					✓
8	Instructor covered material clearly			✓		
9	Instructor responded well to questions				✓	
10	Instructor facilitated interactions among participants well			✓		

C. How could this workshop be improved? by doing proper practice work.

D. Any other comments or suggestions?

— NO —

E. Overall, how would you rate this workshop?

☐	Poor	☒	Good
☐	Neither Good Nor Poor	☐	Excellent



Quiz on Applied Thermal Engineering Course

1. One ton of refrigeration is equal to ____
 - a. 120 B Th U/hr
 - b. 200 B Th U/hr
 - c. 1200 B Th U/hr
 - d. 12000 B Th U/hr
2. Thermal efficiency of S.I. engines is low, due to ____
 - a. low compression ratio
 - b. high compression ratio
3. Which of the following energy conversion devices convert heat into work?
 - a. Electrical generators
 - b. I. C engines
 - c. Condensers
 - d. All of the above
4. Lancashire boilers are ____
 - a. externally fired boilers
 - b. internally fired boilers
 - c. both a. and b.
 - d. none of the above
5. Smoke tube boilers have large water to steam ratio, hence ____
 - a. have high evaporation rates
 - b. are slow in operations
 - c. temperature stresses inducing failure of feed water arrangement are maximum
 - d. all of the above
6. Pump transfers input mechanical energy of an engine, into ____
 - a. pressure energy of a fluid
 - b. kinetic energy of a fluid
 - c. both a. and b.
 - d. none of the above
7. What is the function of a moderator?
 - a. Anchors
 - b. Forebays
 - c. Trash rack
 - d. Surge tank
8. What is the function of a moderator?
 - a. Increases the speed of neutrons
 - b. Increases the speed of electrons
 - c. Reduces the speed of neutrons
 - d. Reduces the speed of electrons
9. A definite area or a place where some thermodynamic process takes place is known as
 - a) Thermodynamic system
 - b) Thermodynamic circle
 - c) Thermodynamic process
 - d) Thermodynamic law
10. The measurement of a thermodynamic property known as the temperature is based on
 - a. Zeroth law of thermodynamics
 - b. First law of thermodynamics
 - c. The second law of thermodynamics
 - d. None of these
11. The amount of heat required to raise the temperature of the unit mass of gas through one degree at constant volume is known as
 - a. Specific heat at volume
 - b. Specific heat at constant pressure
 - c. Kilojoule
 - d. None of these



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225

Phone: 08258-262725 Fax: 08258-262726

DEPARTMENT OF MECHANICAL ENGINEERING

Quiz on Applied Thermal Engineering Course

12. The states that change of internal energy of a perfect gas is directly proportional to the change of temperature
 - a. Boyle's law
 - b. Charle's law
 - c. Gay-Lussac law
 - d. Joule's law
13. Which of the following is an intensive property of a thermodynamic system?
 - a. Pressure
 - b. Volume
 - c. Temperature
 - d. Density
14. A process, in which the gas is heated or expanded in such a way that the product of its pressure and volume remains constant is known as
 - a. Isothermal process
 - b. Hyperbolic process
 - c. Adiabatic process
 - d. Polytropic process
15. An adiabatic process is one in which
 - a. No heat enters or leaves the gas
 - b. The temperature of the gas changes
 - c. The change in internal energy is equal to the mechanical work done
 - d. All of the above
16. The efficiency of joule cycle is
 - a. Greater than Carnot cycle
 - b. Less than Carnot cycle
 - c. Equal to Carnot cycle
 - d. None of these
17. Is an isothermal process
 - a. There is no change in temperature
 - b. There is no change in enthalpy
 - c. There is no change in internal energy
 - d. All of these
18. Otto cycle consists of
 - a. Two constant volume and two isentropic processes
 - b. Two constant pressure and two isentropic processes
 - c. Two constant volume and two isothermal processes
 - d. One constant pressure, one constant volume and two isotropic processes
19. The amount of heat generated per kg of fuel is known as
 - a. Calrofic value
 - b. Heat energy
 - c. Lower calorific value
 - d. Higher calorific value
20. Which of the following gas has the highest calorific value?
 - a. Coal gas
 - b. Producer gas
 - c. Mond gas
 - d. Blast furnace gas



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY MOODBIDRI

A Unit of Alva's Education Foundation®
(Affiliated to VTU, Belagavi and Approved by A.I.C.T.E., New Delhi)
Shobhavana Campus, Mijar, Moodbidri DK Karnataka-574225

DEPARTMENT MECHANICAL ENGINEERING

Certificate

*This is to certify that Mr./Ms.....bearing the
USN from has attended
the Students Training Program on "Applied Thermal
Engineering " from 25th January 2015 to 29th January 2015.*

Mr. Hemanth S
Coordinator

Prof. K V Suresh
Head of the Department
Mechanical Engineering

Dr. Peter Fernandes
Principal
AIET Moodbidri



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
Shobhavana Campus, Mijar, Moodbidri, D.K - 574225
Phone: 08258-262725, Fax: 08258-262726
DEPARTMENT OF MECHANICAL ENGINEERING

Report on Applied Thermal Engineering

The department of ME conducted a Five Days hands on students training program for the students of ME from 25-01-2015 to 29-01-2015 on "Applied Thermal Engineering" at AIET Moodbidri.

Dr. Satyanarayana & Mr. Shankarappa K, Department of Mechanical Engineering AIET, Moodbidri delivered a comprehensive and in depth information about the Fundamentals of Applied Thermal Engineering & its Principles, Techniques, Applications. Eighty participants have enthusiastically participated and learnt the application building.

Photo





ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri - 574 225
Phone: 08258-262725 Fax: 08258-262726

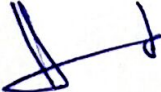
DEPARTMENT OF MECHANICAL ENGINEERING

ACADEMIC YEAR: 2014-15

CERTIFICATE PROGRAM ON APPLIED Thermal Engineering

SL. No	Topic
1	Concept of two phase system - Formation of steam- Definition and representation of wet steam, dry steam, saturated steam and superheated steam on T-H Diagram. Concept and determination of dryness fraction- Degree of superheat-Latent heat-sensible heat, enthalpy-entropy-Internal energy-External work of evaporation and specific volume of steam Use of Steam tables and Mollier chart- (Heat Entropy Chart).-Numerical examples based on above. Steam vapour cycles-Carnot cycle- Schematic diagram -Representation on PV & T-S diagram Rankine cycle-Schematic diagram- Representation on PV & T-S diagram-(No numerical Problems on steam vapour cycles) Steam Calorimeters- Barrel Calorimeter, Separating Calorimeter, Throttling Calorimeter and combined Separating & Throttling calorimeters.-Limitations of Calorimeter.
2	Introduction-Steam condenser-Concept-Classification-Functions- Jet condensers and surface condensers-working-merits and demerits of surface condensers over jet condensers -Cooling towers- Classification, function and working. Steam nozzles-concept-Types-Flow of steam through convergent-divergent nozzle-Friction in a nozzle-Discharge of steam through nozzles-Critical pressure ratio (no derivation)-Methods of calculation of cross sectional areas at throat and exit for maximum discharge-Effect of friction in nozzles-Supersaturated flow through nozzle- Numerical on nozzles using Mollier Chart only.
3	Steam boiler-Concept-definition-Indian Boilers Regulation (IBR)- Classification of boiler - function of boiler-Low pressure boilers- Sketch and working of Cochran boiler- Babcock and Wilcox boiler-Merits and demerits-High pressure boilers- Sketch and working of Lamont and Benson boiler- Merits and demerits- Comparison of water tube and fire tube boilers- Boiler mountings and accessories, Boiler draught system-concept and classification -steam jet draught.
4	Air compressor-concepts, functions, classification and applications- Single stage reciprocating air compressor-construction and working (with line diagram) Expression for work done and power required by single stage reciprocating compressor (without derivation), Simple problems on work done and power required. Multi stage compression - advantages of multistage compression-Rotary Compressors - working of rotary Compressor-Difference between reciprocating and rotary compressors - concept of screw compressor (oil free).
5	Refrigeration - Definition -Unit of refrigeration -Coefficient of performance (COP)-Vapour compression refrigeration with flow diagram-Vapour absorption refrigeration with flow diagram- Refrigerants -Types-Factors affecting the choice of refrigerants- properties of good refrigerants. Psychrometry- definition-Psychrometric terms - dry air, saturated air, dry bulb temperature Wet bulb temperature, dew point temperature, relative humidity, absolute humidity, specific humidity. Air Conditioning- classification-winter Air Conditioning-Summer Air conditioning-Year round air conditioning-

H.O.D.
Dept. Of Mechanical Engineering
Alva's Institute of Engineering & Technology,
Mijar, MOODBIDRI - 574 225


Course Coordinator