

RGPV (DIPLOMA WING) BHOPAL		OBE CURRICULUM FOR THE COURSE		FORMAT-3	Sheet No. 1/3
Branch	REFRIGERATION and AIR CONDITIONING			Semester	V
Course Code	504	Course Name	Refrigeration and Air Conditioning Drawing		
Course Outcome 1	Describe Projection, Multi view representation and Sectional views.			Teaching Hrs	Marks
Learning Outcome 1	Define concepts of projections and multi-view representation.			7	10
Contents	Projection: orthographic projection. First and third angle projection, superfluous view, choice of views, auxiliary views- views -full and partial, conversion of pictorial views in to orthographic views, conventional representation as per IS: 696.				
Method of Assessment	Paper-Pen Test (Prg. 1)			Internal	
Learning Outcome 2	Explain Sectional views. view with front/top view of a given part.			7	10
Contents	Sectional Views : Full section, half section, partial or broken section, revolved section, removed section, offset section. Sectioning conventions, section lines. Hatching procedure for different materials as per IS code 686 1972. Sectional views of assembled parts. Choosing from IC engine parts, couplings, clutches, brackets, bearing etc. (Use 1st angle projection)				
Method of Assessment	Paper-Pen Test (TW)			Internal	
Course Outcome 2	Draw dimensioning, tolerance, machining , Electrical, Civil & RAC components Symbols and line diagram.			Teaching Hrs	Marks
Learning Outcome 3	Define/Explain concepts of dimensioning and tolerance.			5+2	10
Contents	Types of dimensions (size and location) dimensioning terms and notations. (Use of IS: 696 code) general rules for dimensioning and practical hints on dimensioning systems of dimensioning. Dimension of cylinder holes arcs of circle narrow space, angles, counter sunk hole, screw threads taper etc. Application of tolerances.(Use of IS:2709 code)				
Method of Assessment	Laboratory test			Internal	
Learning Outcome 4	Draw basic machine/equipments symbols various necessary engineering practice.			7	10
Contents	Machining and surface finish symbols, Representation, , tolerance of forms and positions. RAC main and auxiliary Equipments its control symbols, Electrical equipments, transformers controls, motors. Transformer Starters etc. Civil material symbols building symbols doors, window, ventilator, roof wall etc.				
Method of Assessment	Theory Exam			External	
Learning Outcome 5	Sketch Line Diagram of various RAC systems			7	10
Contents	Refrigeration and Air Conditioning. Line diagramme air refrigeration ,VCRS ,VAB				

	,VRF/VAV , Air And Water Chillers .Cooling Tower ,Evaporative Cooling				
Method of Assessment	Theory Exam				
RGPV (DIPLOMA WING) BHOPAL	OBE CURRICULUM FOR THE COURSE		FORMAT-3	Sheet No. 2/3	
Branch	Refrigeration and Air-conditioning		Semester	v	
Course Code	504	Course Name	Refrigeration and Air Conditioning Drawing		
Course Outcome 3	Draw different components of a duct fitting and Sheet Metal Work Symbols & its Drawing. As per ASHRAE.			Teaching Hrs	Marks
Learning Outcome 6	Sketch various Sheet Metal Work Symbols.			7	10
Contents	Welding Symbols Forms and symbols of seams, pipe fitting symbols ,machining symbols , riveted and welding Joints in sheet metal construction and its symbols used. joints/ bends.				
Method of Assessment	Paper-Pen Test(prg.2)			Internal	
Learning Outcome 7	Draw different components of a duct fitting Symbols .			7	10
Contents	Fitting round and rectangular fittings , Elbow, screen Damper, Butterfly, Duct Mounted in Wall, Bell mouth, with Wall, Conical Diffuser, Round to Plenum, Exhaust/Return Systems, Transition, Exhaust/Return Systems, Wye Converging, Tee converging, Centrifugal Fan Located in Plenum or Cabinet, Bell mouth, Transition, Wye, Diverging, Tee, Diverging Cross, Conical Branches, obstruction, pyramid, diffuser, abrupt exit, dovetail.				
Method of Assessment	Theory Exam			External	
Course Outcome 4	Construct various types of Graphs And Charts.			Teaching Hrs	Marks
Learning Outcome 8	Classify and draw different types of Graph and Charts			12	15
Contents	Introduction, Classification of charts. Graphs and diagrams, quantitative and qualitative charts and graphs. Drawing and curve titles, legends notes etc. Procedure for making graphical representation in ink. logarithmic graphs, semi-logarithm graphs, bar charts area (Percentage) charts, pie charts, alignment charts (Nomo graphs)				
Method of Assessment	Theory Exam			External	
Learning Outcome 9	Draw variable relationship Scale Charts			1+5	10
Contents	Forms and construction of functional scale, parallel scale charts for equations of the form[$f(t)+f(v)$, $(f(t) \times f(u) = f(v))$ three scale alignment chart, graphical construction of a Z chart, four variable relationship parallel scale alignment chart.				
Method of Assessment	Laboratory test				

	Internal				
RGPV (DIPLOMA WING) BHOPAL	OBE CURRICULUM FOR THE COURSE		FORMAT-3	Sheet No. 3/3	
Branch	Refrigeration and Air-conditioning		Semester	V	
Course Code	504	Course Name	Refrigeration and Air Conditioning Drawing		
Course Outcome 5	Construct Refrigeration & Air conditioning drawing using a CAD Software.			Teaching Hrs	Marks
Learning Outcome 10	Execute draw and modify commands used in CAD software.			8	10
Contents	Coordinate system, Drawn command-line, arc, circle rectangle, polygon, point, ellipse, hatch. Erase, copy, offset, array, trim, extend, break, join, chamfer, fillet, move, rotate, scale, stretch, length, Dimensioning Tray settings: snap, grid, ortho, polar, osnap.				
Method of Assessment	Theory Exam				
Learning Outcome 11	Execute format and construction commands used in CAD software.			2+10	30
Contents	Format commands: line type, point style, units, layers, drawing limit, dimension style, text and text styles, formatting dimension style and multi leader style				
Method of Assessment	Laboratory test				
Learning Outcome 12	Construction of drawing using Auto CAD.			8	15
Contents	Application of Auto CAD: practice of Refrigeration & Air conditioning drawings using AutoCAD Presentation: Block. creating layout, insert layout. plotting printing				
Method of Assessment	Theory Exam				

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
					R	0	1	5	0	4	1	1	
COURSE NAME	Refrigeration and Air-Conditioning Drawing												
CO Description	CO-1 Describe Projection, Multi View Representation And Sectional Views.												
LO Description	LO-1 Define Concepts Of Projections And Multi-View Representation.												
SCHEME OF STUDY													
S. No.	Learning Content	Teaching –Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks						
1	Projection: orthographic projection. First and third angle projection, superfluous view, choice of views, auxiliary views- views -full and partial, conversion of pictorial views in to orthographic views, conventional representation as per IS: 696.	Interactive Classroom method, Handout, PPTs, Charts and Videos.	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	7		Handouts, Charts, Videos	NIL						
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal								
1	Paper-Pen Test (Prg. 1)	Student will be asked to define Projection, orthographic projection. First and third angle projection.	10	Test Paper	Internal								
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
					R	0	1	5	0	4	1	2	
COURSE NAME	Refrigeration and Air-Conditioning Drawing												
CO Description	CO-1 Describe Projection, Multi view representation and Sectional views.												
LO Description	LO-2 Explain Sectional views. view with front/top view of a given part.												
SCHEME OF STUDY													
S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks						
1	Sectional Views : Full section, half section, partial or broken section, revolved section, removed section, offset section. Sectioning conventions, section lines. Hatching procedure for different materials as per IS code 686 1972. Sectional views of assembled parts. Choosing from IC engine parts, couplings, clutches, brackets, bearing etc. (Use 1st angle projection)	Interactive Classroom method, Handout, PPTs, Charts and Videos.	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	7		Handouts, Charts, Videos, Models of renewable power generation							
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment			Maximum Marks	Resources Required	External / Internal						
1	Paper-Pen Test (TW)	Student will be asked to explain a given sectional view with front/top view of a given part.			10	Paper Pen	Internal						
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME				Branch Code			Course Code			CO Code	LO Code	Format No. 4
						R	0	1	5	0	4	2	3	
COURSE NAME	Refrigeration and Air-Conditioning Drawing													
CO Description	CO-2: Draw dimensioning, tolerance, machining, Electrical, Civil & RAC components Symbols and line diagram													
LO Description	LO-3 : Define/Explain concepts of dimensioning and tolerance.													
SCHEME OF STUDY														
S. No	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remarks							
1	Types of dimensions (size and location) dimensioning terms and notations. (Use of IS: 696 code) general rules for dimensioning and practical hints on dimensioning systems of dimensioning. Dimension of cylinder holes arcs of circle narrow space, angles, counter sunk hole, screw threads taper etc. Application of tolerances.(Use of IS:2709 code)	Interactive Classroom method, Handout, PPTs, Charts and Videos, Working Models of power utilization	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	5	2	Handouts, Charts, Videos, Working Models	NIL							
SCHEME OF ASSESSMENT														
S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal									
1	Laboratory test	1. Student will be asked to explain methods of dimensioning with the help of sketches. 2. Student will be asked to draw dimensions and tolerances on a given sketch.	10	Working models	Internal									
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)														

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
					R	0	1	5	0	4	2	4	
COURSE NAME	Refrigeration and Air-Conditioning Drawing												
CO Description	CO-2: Draw dimensioning, tolerance, machining, Electrical/ Civil / RAC components Symbols and line diagram.												
LO Description	LO-4 Draw basic machine/equipments symbols various necessary engineering practice.												
SCHEME OF STUDY													
S.No	Learning Content	Teaching –Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remark						
1	Machining and surface finish symbols, Representation, , tolerance of forms and positions. RAC main and auxiliary Equipments its control symbols, Electrical equipments, transformers controls, motors. Transformer Starters etc. Civil material symbols building symbols doors, window, ventilator, roof wall etc.	Interactive Classroom method, Handout, PPTs, Charts and Videos.	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	7		Handouts, Charts, Videos							
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment			Maximum Marks	Resources Required	External / Internal						
1	Theory Exam	Student will be asked to draw machining and Electrical/ Civil / RAC components' symbols..			10	Test Paper	External						
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code		Course Code		CO Code	LO Code	Format No. 4
					<i>R</i>	<i>0</i>	<i>1</i>	<i>5</i>	<i>0</i>	<i>4</i>	
COURSE NAME	Refrigeration and Air-Conditioning Drawing										
CO Description	CO-2: Draw dimensioning, tolerance, machining, Electrical/ Civil / RAC components Symbols and line diagram.										
LO Description	LO5- Sketch Line Diagram of various RAC systems.										
SCHEME OF STUDY											
S. No	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remark				
	Refrigeration and Air Conditioning. Line diagramme air refrigeration ,VCRS ,VAB ,VRF/VAV , Air And Water Chillers .Cooling Tower ,Evaporative Cooling	Interactive Classroom method, Handout, PPTs, Charts and Videos.	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	7		Handouts, Charts, Videos					
SCHEME OF ASSESSMENT											
S. No.	Method of Assessment	Description of Assessment			Maximum Marks	Resources Required	External / Internal				
1	Theory Exam	Student will be asked to Refrigeration and Air Conditioning. Line diagramme air refrigeration ,VCRS ,VAB ,VRF/VAV , Air And Water Chillers .Cooling Tower ,Evaporative Cooling			10	Test Paper	External				
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)											

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
					R	0	1	5	0	4	3	6	
COURSE NAME	Refrigeration and Air-Conditioning Drawing												
CO Description	CO- 3 Draw different components of a duct fitting and Sheet Metal Work Symbols & its Drawing As per ASHRAE Standards												
LO Description	LO-6 Sketch various Sheet Metal Work Symbols												
OF STUDY													
S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remark						
1	Welding Symbols ...Forms and symbols of seams, pipe fitting symbols ,machining symbols , riveted and welding Joints in sheet metal construction and its symbols used. joints/bends.	Interactive Classroom method, Handout, PPTs, Charts and Videos.	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	7		Handouts, Charts, Videos, ASHRAE Standards							
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal								
	Paper-Pen Test(prg.2)	Student will be asked to Sketch Welding Symbols ...Forms and symbols of seams, pipe fitting symbols ,machining symbols , riveted and welding Joints in sheet metal construction and its symbols used	10	Test Paper	Internal								
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
					R	0	1	5	0	4	3	7	
COURSE NAME	Refrigeration and Air-Conditioning Drawing												
CO Description	CO-- 3 Draw different components of a duct fitting and Sheet Metal Work Symbols & its Drawing. As per ASHRAE												
LO Description	LO-7 Draw different components of a duct fitting Symbols												
SCHEME OF STUDY													
S. No	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remark						
	Fitting round and rectangular fittings , Elbow, screen Damper, Butterfly, Duct Mounted in Wall, Bell mouth, with Wall, Conical Diffuser, Round to Plenum, Exhaust/Return Systems, Transition, Exhaust/Return Systems, Wye Converging, Tee converging, Centrifugal Fan Located in Plenum or Cabinet, Bell mouth, Transition, Wye, Diverging, Tee, Diverging Cross, Conical Branches, obstruction, pyramid, diffuser, abrupt exit, dovetail	Interactive Classroom method, Handout, PPTs, Charts and Videos.	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	7		Handouts, Charts, Videos							
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal								
	Theory Exam	Student will be asked to draw Fitting round and rectangular fittings , Elbow, sreen Damper, Butterfly, Duct Mounted in Wall, Bellmouth, with Wall, , Wye Diffuser Tee converging, Cross,	10	Test Paper	External								
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
					R	0	1	5	0	4	4	8	
COURSE NAME	Refrigeration and Air-Conditioning Drawing												
CO Description	CO- 4 Construct various types of Graphs And Charts.												
LO Description	LO-8 Classify and draw different types of Graph and Charts												
SCHEME OF STUDY													
S. No.	Learning Content				T-L Method	Description of T-L Process	Tea ch Hrs .	Pract. /Tut Hrs.	LRs Required	Rem ark			
	Introduction, Classification of charts. graphs and diagrams, quantitative and qualitative charts and graphs. Drawing and curve titles, legends notes etc. Procedure for making graphical representation in ink. logarithmic graphs, semi-logarithm graphs, bar charts area (Percentage) charts, pie charts, alignment charts (Nomo graphs)				Interactive Classroom method, Handout PPTs, Charts and Videos.	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	12		Handouts, Charts, Videos, Experimental setup for dryness fraction				
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment					Maximum Marks	Resources Required	External / Internal				
	Theory Exam	Student will be asked to Classification of charts. graphs and diagrams, quantitative and qualitative charts and graphs.					15	Test Paper	External				
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
					R	0	1	5	0	4	4	9	
COURSE NAME	Refrigeration and Air-Conditioning Drawing												
CO Description	CO- 4 Construct various types of Graphs And Charts												
LO Description	LO-9 Draw variable relationship Scale Charts												
SCHEME OF STUDY													
S. No.	Learning Content	T-L Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remark						
	Forms and construction of functional scale, parallel scale charts for equations of the form[$f(t)+f(v)$, $(f(t) \times f(u) = f(v))$ three scale alignment chart, graphical construction of a Z chart, four variable relationship parallel scale alignment chart.	Interactive Classroom method, Handout, PPTs, Charts and Videos.	Teacher will explain the contents and provide handout to students. Experimental determination of entropy	1	5	Handouts, Charts, Videos, Experimental setup for							
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal								
	Laboratory test	Student will be asked to draw Forms and construction of functional scale, parallel scale charts for equations of the form[$f(t)+f(v)$, $(f(t) \times f(u) = f(v))$ three scale alignment chart	10	Experimental Setup	Internal								
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													

RGPV (Diploma Wing) Bhopal		SCHEME FOR LEARNING OUTCOME			Branch Code			Course Code			CO Code	LO Code	Format No. 4
					R	0	1	5	0	4	5	10	
COURSE NAME	Refrigeration and Air-Conditioning Drawing												
CO Description	CO-5 Construct Refrigeration & Air conditioning drawing using a CAD Software.												
LO Description	LO-10 Execute draw and modify commands used in CAD software.												
SCHEME OF STUDY													
S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remark						
	Coordinate system, Drawn command-line, arc, circle rectangle, polygon, point, ellipse, hatch. erase, copy, offset, array, trim, extend, break, join, chamfer, fillet, move, rotate, scale, stretch, lengthe. Dimensioning Tray settings: snap, grid, ortho, polar, osnap.	Interactive Classroom method, Handout, PPTs, Charts and Videos. Models of boilers, mountings and accessories	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	8		Handouts, Charts, Videos, Experimental setup for dryness fraction							
SCHEME OF ASSESSMENT													
S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	External / Internal								
	Theory Exam	Student will be asked to Execute draw command-line, arc, circle, rectangle, polygon, point, ellipse, hatch. erase, copy, offset, array, trim, extend, break, join, chamfer, fillet, move, rotate, scale, stretch, lengthe.	10	Test Paper	External								
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)													

RGPV (Diploma Wing) Bhopal	SCHEME FOR LEARNING OUTCOME	Branch Code			Course Code			CO Code	LO Code	Format No.
		<i>R</i>	<i>0</i>	<i>1</i>	<i>5</i>	<i>0</i>	<i>4</i>	<i>5</i>	<i>11</i>	4
COURSE NAME	Refrigeration and Air-Conditioning Drawing									
CO Description	CO-5 Construct Refrigeration & Air conditioning drawing using a CAD Software									
LO Description	LO-11 Execute format and construction commands used in CAD software.									
SCHEME OF STUDY										
S. No.	Learning Content	T-L Method	Description of T-L Process			Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remark	
	Format commands: line type, point style, units, layers, drawing limit, dimension style, text and text styles, formatting dimension style and multi leader style	Interactive Classroom method, Handout PPTs, Charts and Videos, Models	Teacher will explain the contents and provide handout to students. Experimental determination of dryness fraction			2	10	Handouts, Charts, Videos, Experimental setup for dryness fraction		
SCHEME OF ASSESSMENT										
S. No.	Method of Assessment	Description of Assessment			Maximum Marks		Resources Required		External / Internal	
	Laboratory test	. Student will be asked to Format commands: line type, point style, units, layers, drawing limit, dimension style, text and text styles, formatting dimension style and multi leader style			30		Models		External	
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)										

RGPV (Diploma Wing) Bhopal	SCHEME FOR LEARNING OUTCOME		Branch Code			Course Code			CO Code	LO Code	Format No. 4
			R	0	1	5	0	4	5	12	
COURSE NAME	Refrigeration and Air-Conditioning Drawing										
CO Description	CO-5 Construct Refrigeration & Air conditioning drawing using a CAD Software										
LO Description	LO-12 Construction of drawing using Auto CAD.										
SCHEME OF STUDY											
S. No.	Learning Content	Teaching – Learning Method	Description of T-L Process	Teach Hrs.	Pract. /Tut Hrs.	LRs Required	Remark				
	Application of Auto CAD: practice of Refrigeration & Air conditioning drawings using AutoCAD Presentation: Block. creating layout, insert layout. plotting printing	Interactive Classroom method, Handout, PPTs, Charts and Videos.	Teacher will explain the contents and provide handout to students. Teacher will conduct Quiz/visit to make students practice their knowledge	8		Handouts, Charts, Videos, models					
SCHEME OF ASSESSMENT											
S. No.	Method of Assessment	Description of Assessment	Maximum Marks	Resources Required	Eternal / Internal						
	Theory Test	Student will be asked to Application of Auto CAD: practice of Refrigeration & Air conditioning drawings using AutoCAD Presentation:	15	Test Paper	External						
ADDITIONAL INSTRUCTIONS FOR THE HOD/ FACULTY (IF ANY)											