# B. Sc. Home Science Interior Design & Resource Management (IDRM), 2020-21 (Semester- V)

Sr. No.	Paper/ Subject	Cre	edit Ho	ours		Theo Mar			Practi Mar		
	Courses	T	P	Total	Paper	Int. Ass	Total	Paper	Int. Ass.	Total	Total
1	Building Material & Construction Techniques - I	2	2	4	40	10	50	25	25	50	100
2	Work Place Design - I	2	4	6	40	10	50	25	25	50	100
3	Furniture Design & Interior Graphics	2	4	6	40	10	50	25	25	50	100
4	Fundamentals of Auto CAD	0	4	4	0	0	0	50	50	100	100
5	Ergonomics & Household Equipment (Common to Composite & IDRM)	3	2	5	40	10	50	25	25	50	100
6	Economics & Entrepreneurship Development -I (Common to all)	2	2	4	40	10	50	25	25	50	100
7	Extension Education-I (Common to all)	2	2	4	40	10	50	25	25	50	100
	TOTAL			33							700

(Semester- V)

# BUILDING MATERIALS AND CONSTRUCTION TECHNIQUES – I

# (THEORY)

	t hrs: 2 / week hrs: 3  Paper: 40 Internal Assessment: 10
OBJE	CCTIVES
	To enable the students to make use of various types of building materials in designing & planning of various design projects.
	To enable the students to execute construction work in various design projects.
1. Eac 2. Que 3. A te compo 4. All 5. Stu	ch theory paper will be of three hours duration. estions paper will have four units. otal of nine questions comprising of two questions from each unit and one alsory questions of short answer type covering the whole syllabus will be set. questions may carry equal marks unless specified. dents will be expected to attempt one question from each unit and the alsory question.
	UNIT-I
	<b>71</b> / 1
	Cement – Types, Properties & uses.
	UNIT-II
	Brick Masonary, Types of Bonds and Types of Brick Walls, Decorative brick work in interiors.
	Bricks/Tiles- Types, Properties and uses in interior & exterior.
	UNIT-III
	Stones - Types, Properties and uses in interior & exterior.
	UNIT-IV
	Timber and Plastic: Timber, Types, Properties, uses, seasoning and defects.
	Timber Based Products: Comparative properties and uses of the commercial plywood, block board, particle board, teak ply board, laminates etc

### REFERENCES

- 1. Callender, J.H. Time saver standards for architectural Design Data. McGraw Hill Publishing Co. New York.
- 2. Kumar, S. Varghese and Saluja, K. Building Construction, Standard Publishers Distributers, Delhi.
- 3. Sushil Kumar. Building Construction 20th Edition, standard publishers distribution, New Delhi
- 4. Susan M Winchip (2008) Fundamentals of light, Fairchild publications
- 5. Pratap R.M (1988) Iterior Design Principles and Practice, standard publishers distribution, New Delhi
- 6. Project Management by S. Chaudhury. Publisher: McGraw Hill Education (India) Private Limited
- 7. Punmia B.C. 2008," Building Construction", laxmi publication Pvt. Ltd. New Delhi

(Semester- V)

# BUILDING MATERIALS AND CONSTRUCTION TECHNIQUES – I

(PRACTICAL)

Credit hrs: 2 / week Maximum Marks: 50

Exam hrs: 3 Paper: 25

**Internal Assessment: 25** 

# **Objectives:**

An interior designer is supposed to make use of various types of materials for conceptualizing, designing and executions of interior design projects.

### 1. Masonry:

Brick masonry: brick bonds - Zig-Zag & Diagonal

Stone masonry: Ashlar and Rubble

# 2. Openings:

a) Arches: Types and techniques of construction Lintels: types and techniques of construction

b) Doors: Door frame and Types of doors with sectional details

c) Windows: Types of windows with sectional details

Ex: Design a door and window of for a given area

(Semester- V)

# WORK PLACE DESIGN - I (THEORY)

Credit hrs: 2 / week Exam hrs: 3	Maximum Marks: 50 Paper: 40 Internal Assessment: 10
OBJECTIVES:-	
<del>-</del>	ading of designing residential projects.  In creating & designing comfortable workplaces which of the occupants.
Instructions to the examin	er-
compulsory question of short ans 4. All questions may carry equa	or units.  prising of two questions from each section and one swer type covering the whole syllabus will be set.
•	ement in a building
	UNIT - II
☐ Factors affecting therma	at and cold on human body.

# UNIT - III

<b>Ventilation</b> : Necessity – Types – Natural / Mechanical Ventilation.
Advantages and Disadvantages of Natural & Mechanical Ventilation
Methods of achieving Mechanical Ventilation in a building.
UNIT – IV
Principles of air conditioning- Types of air conditioning, Uses, Essentials of air conditioning.

# **REFERENCES**

- 1. Callender, J.H. Time saver standards for architectural Design Data. McGraw Hill Publishing Co. New York.
- 2. Kumar, S.Varghese and Saluja, K. Building Construction, Standard Publishers Distributers, Delhi.
- Pratap R.M (1988) Iterior Design Principles and Practice, standard publishers distribution, New Delhi
   Jhon F. Pile Interior Design 2<sup>nd</sup> edition, Harry N. Abrams, Inc Publishers.

(Semester- V)

# WORK PLACE DESIGN - I (PRACTICAL)

Credit hrs : 4	1 / week	<b>Maximum Marks: 50</b>		
Exam hrs: 3	3	Paper: 25		
		<b>Internal Assessment: 25</b>		
OBJECTIV	VES			
	ire skill in arranging different areas of a res	idential building by using principles		
of desi	· ·			
	velop the creative potential of the students			
☐ To ena standa:	able the students to plan & execute residenards.	tial projects according to design		
Layout plai	n & elevations of different residenti	al spaces:		
	Bedroom			
	Kitchen			
	Living room			
	Bathroom			
Residence I	Design Project			
Drawin	ings includes –			
	Case studies			
	Concept sheet			
	Layout plan			
	Elevations			
	Sections			
	Perspective views			
	Rendering of above drawings			
Survey				
	lar Kitchen industry ential Building			
Project				
	ential Building			

Design and create a lighting fixture

# (Semester- V)

# **FURNITURE DESIGN & INTERIOR GRAPHICS**

# (THEORY)

Credit hr Exam hr	S : 2 / week S : 3  Paper : 40 Internal Assessment: 10
Objective	es
□ То	gain knowledge about different styles of existing furniture gain knowledge about different materials & Finishes used in construction furniture.
1. Each th 2. Questic 3. A total compulso 4. All que 5. Student	neory paper will be of three hours duration. In spaper will have four units. In of nine questions comprising of two questions from each unit and one ry questions of short answer type covering the whole syllabus will be set. The strions may carry equal marks unless specified. Its will be expected to attempt one question from each unit and the ry question.
	UNIT – I  rniture and importance of furniture designing sic properties of a good furniture and its selection criteria
	UNIT - II
un	assification of furniture - Beds, Sofas and Chairs, Tables and desks, Storage its, Screens, Outdoor furniture, Built-in furniture. eneral principles of furniture arrangement for different rooms
	UNIT - III
	pholstered furniture, materials and technique anufacturing process of wooden furniture
$\Box$ Ty	pe of joints and their application.
_ \ \ \	UNIT - IV
W	ain characteristics of material used for construction of furniture oods - Solid, Plywood, Veneer, Hardboard, Particle Board, Composite wood c. Metal, Glass, Plastic and PVC, Bamboo, Marble, Cane & Wrought iron

☐ Furniture finishes – Types, Characteristics and application techniques

# References

- 1. Rao. M. P. 2012 <u>Interior Design Principles and Practice</u>, Standard Publisher Distributor, Delhi.
- 2. Seetharaman P. and Pannu P. 2012. <u>Interior Design and Decoration</u>. CBS Publishers and Distributors, New Delhi
- 3. Anna. H. Rutt ; Home Furnishing, John Wilay Eastern Pvt. Ltd. New York (1961)
- 4. VeenaGandotra; MeenakshiShukala and NeerjaJaiswal. <u>Introduction to Interior design & Decoration</u>, Dominat publishers & Distributers

(Semester- V)

#### FURNITURE DESIGN & INTERIOR GRAPHICS

### (PRACTICAL)

Credit hrs: 4 / week Maximum Marks: 50

Exam hrs: 3 Paper: 25

**Internal Assessment: 25** 

# **Objectives**

- $\hfill\Box$  To acquaint the student, with symbols and to impart necessary drafting skills and to express design ideas.
- ☐ To develop skills in drafting and rendering which will be utilized for interpreting / reading drawings.
- ☐ Development skills to make various projections.
- ☐ To develop skills in students to design different furniture items.
- ☐ To enable the students to work in furniture industry.

#### **Practical**

1. Knowledge of Horizontal and vertical lines circles, curves, parallel curves etc. Exercise: Line weight and line types

Exercise: Draw a composition using Horizontal and vertical lines

Exercise: Draw a composition using circles, curves, parallel curves etc.

2. Knowledge of standardize drawings, importance, various architectural symbols and usage in drawings.

Exercise: Architectural symbols, furniture symbols in plan and elevation.

3. Knowledge of use of engineering scales- metric, feet and inches.

Exercise: drafting 2- Dimensional shapes using different scales

**4.** Knowledge of two dimensional and three dimensional geometrical shapes. Exercise: Exercises on three dimensional (solid) geometrical shapes showing

simple plan, elevation and isometric view.

5. Knowledge of perspective drawings in interiors and terminology of perspective drafting and drawing, viz planes, vanishing, point in one point & two point perspective.

Exercise: one point & two point perspective of three dimensional geometrical shapes.

6. To gain basic knowledge of simple furniture shapes and their dimensions

E	xercise:
	Standard furniture dimensions.
	Free hand drawing of period furniture.
	Free hand drawing of objects of interiors – Furniture and Accessories
so	7. To be able to draft simple shapes on cale Exercise:
	Drafting of simple furniture objects (Chair& Table) with projections, showing isometric view, front elevation, side elevation, plan etc.
	8. To be able to design different furniture items Exercise:
M	lake plan, Elevation and isometric views of the following furniture items:
	Design a Sofa for a living room
	Design Bed for Master Bedroom
	Design a wall unit for LCD
Surv	ey: Visit the following manufacturing units and prepare a report.
	Wooden furniture
	Upholstered furniture
	Steel furniture
	Wrought Iron Furniture

**Project:** Fabricated furniture - Book shelf / Table / Chair / Storage unit Or Make a model of furniture

### (Semester- V)

### **FUNDAMENTALS OF AUTO CAD**

# (PRACTICAL)

Credit hrs: 4 / week Maximum Marks: 100

Exam hrs: 3 Paper: 50

**Internal Assessment: 50** 

# **OBJECTIVES**

The students will learn to use AutoCAD as a drafting tool to produce accurate presentation and working drawings of their design projects and all furniture designs.

# 1. Getting started with basics

Creating and Saving a new Drawing.

- \* Commands and options to create new drawing.
- \* Layer
- \* Application of layers.
- \* Open a new, existing drawing.
  - Save, save as, quit, close, exit.

**Exercise:** Setting up a new drawing with units, limits etc.

# 2. **Drawing Commands.**

- Poly Line
- \* Arc.
- \* ellipse.
- \* Polygon.
- \* Rectangle.
- \* SP line.
- \* Circle.
- \* Hatch.
- \* Donuts.

**Exercise:** Making a composition of different geometrical shapes using various drawing commands.

# 3. Viewing an Existing Drawing.

- \* Redraw and Regen all
- \* Regen Auto
- \* View.

**Exercise:** Viewing, zooming of existing drawing made in section

# 4. Modifying an Existing Drawing.

\* Undo Redo/ Oops.

- \* Trim.
- \* Move.
- \* Offset.
- \* Rotate.
- \* Array
- \* Stretch
- \* Divide.
- \* Champher.
- \* Erase.
- \* Break.
- \* Copy, multiple copy.
- \* Mirror (Mirror test).
- \* Change (change properties).
- \* Extend.
- \* Explode.
- \* Blip mode.
- \* Scale
- \* Fillet.

**Exercise:** 

- a) Modifying composition made in section
- b) Making plan, elevation and section of simple objects.

# 5. Making and Inserting Blocks.

- \* Blocks
- \* Insert Block
- \* Explode.

**Exercise**: Inserting furniture, fixtures, trees etc. in the plans, sections and elevations made in section 5.

### 6. **Dimensioning and Text.**

- \*Dimension type, style, units.
- \*Dimension utilities.
- \*Dimension variables.
- \*Dimensioning of different elements like (Horizontal, vertical, inclined), Arc. Circle Radius, Diameter), continuous dimensioning etc.
- \*Editing dimension text and updating (adding new text and editing existing text).
- \*Text style font types, height, width factor etc.

**Exercise:** Dimensioning and editing text in composition made in Sections 5 and 6.

Project: Make Plan & Elevations of a residential building.

(Semester- V)

# ERGONOMICS & HOUSEHOLD EQUIPMENT (THEORY)

# (Common to Composite & IDRM)

Credit hrs: 3 / week Exam hrs: 3	Maximum Marks: 50 Paper: 40
OBJECTIVES:	Internal Assessment: 10
☐ To enlighten the student regarding the concept of Erg	gonomics and its role
in improving work efficiency.	
<ul> <li>To study the relationship among work, worker and w physiological stress on body.</li> </ul>	orkplace to reduce
☐ To orient the student regarding new trends in househ maintenance.	old equipment their use and
Instructions to the examiner-	
1. Each theory paper will be of three hours duration. 2. Questions paper will have four units.	
3. A total of nine questions comprising of two questions from a compulsory question of short answer type covering the whole standards and the standards are specified.	
5. Students will be expected to attempt one question from each compulsory question.	ach unit and
UNIT-I	
☐ Concept of Ergonomics – Introduction, Importance functional design & its implications.	& scope. Concept of
<ul> <li>Elements of Ergonomics - Work &amp; Work place envir</li> <li>&amp; Biomechanics, Human factors &amp; Human engineer</li> </ul>	
UNIT-II	
☐ Worker's considerations in work space design –Anth Work postures, Equipment & clearance space.	propomety, Work habits,
☐ Principles of arranging different work areas in home	ergonomically.
UNIT - III	
☐ Household Equipment	
a) Importance of equipment in daily life	

	b) Factors affecting selection of Household Equipments
	Material used in Household Equipments - Aluminum, steel, stainless, copper, Heat resistant glass, Plastics.
	UNIT - IV
	Finishes – Applied & Mechanical
	Kitchen Utensils & Tools
	a) Classification of utensils- surface cookery, oven cookery, serving cookery
	b) Types of tools
	c) Cleaning & care of kitchen utensils & tools
	d) Selection factors for kitchen utensils & tools
Refer	ences:
	Veena Gandotra, "Essentials of Ergonomics", Dominant Publishers & Distributors Pvt. Ltd.
	Steidl & Bratton (1968), "Work in the Home", John Willy & Sons, New York.
	Helen J. Van Zante, "Household Equipment Principles", PRENTICE – HALL, INC., Englewood Cliffs, New Jersey
	Louise Jenison Peet, "Household Equipment" John Wiley & Sons Inc.

(Semester- V)

# ERGONOMICS & HOUSEHOLD EQUIPMENT (PRACTICAL)

# (Common to Composite & IDRM)

Credit hrs: 2 / week Maximum Marks: 50

Exam hrs: 3 Paper: 25

**Internal Assessment: 25** 

## **Practical**

- 1. Identify and make a list of Household equipments according to various types
- 2. Identify different types of kitchen utensils & tools
- 3. Operation and care of common household appliances Vacuum cleaner, microwave, refrigerator, food processer
- 4. Collect Anthropometric data of a worker at rest, normal and maximum vertical and horizontal reaches while seated and standing.
- 5. Identification and analysis of different postures assumed by women during work.

# **Survey & Report Writing**

Do a market survey to study latest trends in tools & equipment with regard to
finishes and features.

(Semester- V)

# **Economics and Entrepreneurship Development-I** (Theory) (Common to all)

Credit Hrs.: 2/week Maximum Marks: 50 Exam Hrs.: 3

Paper: 40

Internal Assessment: 10

# **Instructions to the paper setter:**

- 1. Each theory paper will be of three hours duration.
- 2. Question paper will have four units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
- 3. Student will attempt one question from each unit and the compulsory question (Total of five questions)
- 4. All questions may carry equal marks, unless specified.

## **Objectives:**

- 1. To prepare the platform where the students view entrepreneurship and selfemployment as a desirable and feasible career option.
- 2. Stimulating the potential to develop entrepreneurial orientation through innovation and creativity
- 3. To orient the students with basic principles involved in starting and managing a new enterprise

new emerprise
Unit-1 1. Entrepreneurial economics:
<ul><li>Need and importance</li><li>Entrepreneurship and enterprise</li></ul>
2. Entrepreneurship and role in economic development
☐ Intrapreneurship and its importance  Unit-II
3. Entrepreneurial Behaviour:  ☐ Types of an entrepreneur ☐ Entrepreneurial traits

4. Ent	repreneurial Motivation
	Types and importance of motivation
	Various motivating factors
	Unit-III
5. Wo	men entrepreneurs:
	characteristics role and challenges faced during creation and enterprise management
6. Av	enues for the growth of women entrepreneurs.
	Unit-IV
7. Bus	siness Idea/Plan:
	Pitching a business idea and its formulation.  Difference between Start ups and Small business.
8. Inte	ellectual Property Rights (Creation-Protection-Encashing).
Reco	nmended Readings:
1.	Gupta C.B and Srinivisan N.P, "Entrepreneurial Development" Sultan Chand and Sons, New Delhi
2.	Khanna S.S, "Entrepreneuship Development" Sultan Chand and Sons, New Delhi
3.	Patel, V. G., "The Seven Business Crises and How to Beat Them" Tata-McGraw, New Delhi, 1995.
4.	SIDBI Report on Small Scale Industries Sector (Latest Editions)
5.	Taneja, Satish and Gupta, S.L, "Entrepreneurship Development-New

Venture Creating" Galgotia Publishing House, New Delhi, Latest Edition

6. Arora Renu and S.K Sood, "Fundamentals of entrepreneurship and Small

business" Kalyani publishers.

(Semester- V)

# Economics and Entrepreneurship Development-I (Practical) (Common to all)

Credit Hrs.: 2/week Maximum Marks: 50

Exam Hrs.: 3 Paper: 25

Internal Assessment: 25

## The main objective of the Paper Setter:-

(i) Familiarize the students with the process and skills of creation and management of enterprise. (ii) To plan, use, monitor and control resources optimally and economically.

#### **CONTENTS**

- 1. Preparation of project report of small enterprises/cottage industries/startups. (The students will be advised to develop a structured instrument (questionnaire) for conducting first hand survey of the various aspects of respective enterprise including the process of setting up of an enterprise, motivating factors responsible for undertaking entrepreneurial set up, capital invested, production techniques adopted, marketing practices adopted for sustainability and future prospects of the enterprise surveyed.
- 2. Class presentation of Project report by conducting the SWOT analysis and suggesting feasible measures for policy implementation.
- 3. Assignments/ presentation on opportunity scouting and idea generation. The contents of the assignment should be focused on the source of institutional finance to the business idea (including case analysis of any one financial institution)

(Semester- V)

# EXTENSION EDUCATION-I THEORY (COMMON TO ALL)

Credit hours: 2/week	Maximum Marks: 50
Exam Hrs.: 3	Paper: 40
	Internal Assessment: 10

### **Objectives:**

- 1. To understand the concept of extension and its relevance for self & national development.
- 2. To appreciate the role of Home Science extension in community development.
- 3. To sensitize students towards various methods, preparation and selection of suitable materials for effective communication.

### Instructions to the paper setter:

- 1. Each theory paper will be of three hours duration.
- 2. Question paper will have four units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
- 3. Student will attempt one question from each unit and the compulsory question (Total of five questions)
- 4. All questions may carry equal marks, unless specified

# UNIT - I 1. Concept of education Formal education Non formal education П Informal education 2. Concept of Extension education Meaning and scope of extension ☐ Difference between formal education and extension education Extension education process Concept of e-Extension UNIT - II 3. Principles and philosophy of extension education Principles of extension education Philosophy of extension education Function of extension education

4. Home Science Extension as a discipline and its contribution towards development.

# UNIT – III

5.	Teaching methods for extension education
	☐ Concept of extension teaching methods
	☐ Methods and steps in extension teaching
6.	Classification of extension teaching methods
	☐ According to form and use
	☐ Advantages and limitations of extension teaching methods
	UNIT – IV
7.	Audio-visual aids
	☐ Classification of audio-visual aids
	☐ Advantages and limitations of various audio visual aids
8.	Factors affecting selection and use of extension teaching methods and aids

# (Semester- V)

# EXTENSION EDUCATION-I PRACTICAL (COMMON TO ALL)

Credit hours: 2/week Maximum Marks: 50

Exam Hrs.: 3 Paper: 25

**Internal Assessment: 25** 

## **Objectives:**

1. To prepare the students in developing various teaching methods and aids used in home science extension.

2. To develop the skills of students used in participatory approaches in program planning and evaluation.

## **Instructions for Paper Setter:**

- 1. Each practical paper will be of 3 hours duration.
- 2. The question paper should cover the entire syllabus.
- 3. The file work and viva voice will be of 5 and 10 marks respectively (Total = 15 marks)

#### **Contents:**

- 1. Preparation of non-projected aids
  - a. Chart/Posters
  - b. Flash cards/Flip book
- 2. As a traditional media of communication:
  - a. Preparation of puppets
  - b. Writing stories for puppets.
- 3. Developing skills and use of following different teaching methods
  - a. Role play
  - b. Puppet play
- 4. Visit to a community to study a government or voluntary organization in action.

#### **RECOMMENDED READINGS:**

- 1. Dhama, O.P. Bhatnagar, O.P., Second Edition 1985, Education and Communication for Development, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
- 2. Dubey V.K. and Bishnoi Indira, First Edition 2008, Extension Education and Communication, New Age International Publishers, New Delhi.
- 3. Supe S.V., Second Edition 1997, An Introduction to Extension Education, Oxford and IBH Publishing Co.Pvt.Ltd, New Delhi.
- 4. Ray G.L., Seventh Edition, 2008, Extension Communication and Management, Kalyani Publishers, New Delhi.
- 5. Desai Vasant, First Edition 1991, Fundamentals of Rural Development, Himalaya Publishing Henge.
- 6. Oakley P. and Garforth C. FAO, 1985, Guide to Extension Training.
- 7. Singh K. Uttam, Nayak A.K., Commonwealth Publishers, 2005, Extension Education.

2016-17
B. Sc. Home Science Interior Design & Resource Management (IDRM)
(Semester- VI)

Sr. No.	Paper/ Subject	Credit Hours			Theory Marks		Practical Marks				
	Courses	T	P	Total	Paper	Int. Ass	Total	Paper	Int. Ass.	Total	Total
1	Building Material & Construction Techniques - II	3	2	5	40	10	50	25	25	50	100
2	Work Place Design - II	2	4	6	40	10	50	25	25	50	100
3	Sustainable Buildings	2	2	4	40	10	50	25	25	50	100
4	Advanced Auto CAD	0	5	5	0	0	0	50	50	100	100
5	Consumer Education (Common to Composite & IDRM)	3	2	5	40	10	50	25	25	50	100
6	Economics & Entrepreneurship Development –II (Common to all)	2	2	4	40	10	50	25	25	50	100
7	Extension Education - II (Common to all)	2	2	4	40	10	50	25	25	50	100
	TOTAL			33							700

(Semester-VI)

# BUILDING MATERIALS AND CONSTRUCTION TECHNIQUES – II (THEORY)

Credit hrs: 3 / week Exam hrs: 3		Marks: 50 Paper: 40 ssessment: 10
OBJECTIVES	THICH HAI AS	sessment. 10
	to make use of various types of building materious design projects.	ials in
	to execute construction work in various design	projects.
<b>Instructions to Examiner</b> 1. Each theory paper will be o 2. Questions paper will have f		
3. A total of nine questions co	omprising of two questions from each unit and of tanswer type covering the whole syllabus will be	
5. Students will be expected to compulsory question.	o attempt one question from each unit and the	
UNIT-I Flooring		
	orick, cement, terrazzo, wood, metals, resilient fl tiles, marble, granite, vitrified, their properties a	
☐ Floor coverings-rugs a and maintenance.	and carpets, selection, laying, cost estimation, ca	ıre
UNIT-II Roofs and ceilings		
☐ Types: flat and pitched PVC, wooden,glass etc	d roofs, treatment-plastering, plaster of Paris,	
UNIT-III Metals, glass& Pla	astic	
☐ Metals – types of meta	als, properties and uses in building construction	
☐ Glass: types of glass, p		
☐ Use of Plastic and PVC	C in interior and construction technology	
UNIT-IV Painting and plast	tering	
	characteristics of ideal paint, defects in painting tempers, white wash, painting techniques.	gs,

☐ Plastering- types of plaster, defects in plaster, its repairs, curing and finishes.

# REFERENCES

- 1. Callender, J.H. Time saver standards for architectural Design Data. McGraw Hill Publishing Co. New York.
- 2. Kumar, S. Varghese and Saluja, K. Building Construction, Standard Publishers Distributers, Delhi.
- 3. Sushil Kumar. Building Construction 20th Edition, standard publishers distribution, New Delhi
- 4. Susan M Winchip (2008) Fundamentals of light, Fairchild publications
- 5. Pratap R.M (1988) Iterior Design Principles and Practice, standard publishers distribution, New Delhi
- 6. Project Management by S. Chaudhury. Publisher: McGraw Hill Education (India) Private Limited
- 7. Punmia B.C. 2008," Building Construction", laxmi publication Pvt. Ltd. New Delhi

(Semester-VI)

# BUILDING MATERIALS AND CONSTRUCTION TECHNIQUES – II

(PRACTICAL)

Credit hrs: 2 / week Maximum Marks: 50

Exam hrs: 3 Paper: 25

**Internal Assessment: 25** 

# 1. Floorings and stairs

Types of flooring and their construction details

Ex: Design flooring for given space

# **Ceilings**

False Ceiling: Types: pop, Gypsum board and ordinary boards with plan and sectional details

Ex: Design false ceiling for a given area

# 3. Panelling and partitions

Types of panelling with their constructional details

Types of partition with their constructional details

Ex: Design panelling for a wall and a partition for a given area

(Semester- VI)

# WORK PLACE DESIGN - II (THEORY)

	hrs: 2/week hrs: 3  Maximum Marks: 50 Paper: 40 Internal Assessment: 10
<b>OBJI</b>	ECTIVES:-  To develop understanding of designing office & restaurant projects.
	To enable the students in creating & designing comfortable workplaces which ensure health & safety of the occupants with effective planning
1. Eac 2. Que 3. A to compu 4. All 5. Stud	th theory paper will be of three hours duration.  In the stions paper will have four units.  In that of nine questions comprising of two questions from each unit and one alsory question of short answer type covering the whole syllabus will be set. In questions may carry equal marks unless specified.  In the syllabus will be expected to attempt one question from each unit and the alsory question.
	UNIT - I Thermal Insulation: Necessity, general principles, thermal insulating materials, Techniques of thermal insulation.
	UNIT- II  Sound Insulation: Definition, Importance, Types of sound insulating materials, Defects due to reflected sound - echo, reverberation & absorption.
	UNIT -III  Secure building design- its necessity, Ways of Monitoring and surveillance in a building.
	UNIT- IV
	Fire Safety-its need, Characteristics of a good fire proof material, Role of a designer towards fire, Fire detection & extinguishing systems

(Semester- VI)

# WORK PLACE DESIGN - II (PRACTICAL)

	nm hrs : 3	m Marks: 50 Paper: 25 I Assessment: 25
OBJI	JECTIVES	i Assessment. 23
	Client profile/ company profile/Design brief Case studies Design layout Materials board (finishes board) Presentation Drawings	
2. Res	Client profile/ company profile/Design brief  Case studies  Design layout  Materials board (finishes board)  Presentation Drawings	

(Semester- VI)

# SUSTAINABLE BUILDINGS (THEORY)

	thrs: 2 / week hrs: 3  Maximum Marks: 50 Paper: 40 Internal Assessment: 10
OBJE	CCTIVES:-
	To provide knowledge to the students about the concept & importance of sustainable buildings.
	To enable the students to use sustainable building materials in design projects.
	importance of green building technology.
	Acquired knowledge in recent green building materials and to trap rain water
Instru	actions to the examiner-
	<ol> <li>Each theory paper will be of three hours duration.</li> <li>Questions paper will have four units.</li> <li>A total of Nine questions comprising of two questions from each unit and one compulsory question of short answer type covering the whole syllabus will be set.</li> <li>All questions may carry equal marks unless specified.</li> <li>Students will be expected to attempt one question from each unit and the compulsory question.</li> </ol>
	UNIT- I
	Sustainable buildings –Introduction, Concept, Importance and Benefits.  UNIT - II
	Principles of Sustainable design - Economy of Resources/ Resource conservation, Life Cycle Design, Humane Design.
	UNIT- III
	Methods of achieving sustainable designs – Methods of conserving resources i.e. energy, water & material, Use of sustainable building construction material, Planning & designing sustainable buildings.
	UNIT -IV Indian Green building Council - Green building rating system in India
_	

# References

	Jong-Jin Kim, 1998, "Sustainable architecture module: Qualities, Use, & Examples of Sustainable Buildings Materials", National Pollution Prevention Center for Higher Education
	Charles J kibert (2013) "Sustainable Construction: Green building design & delivery", Hoboken, N.J, John Wiley & Sons.
П	Despande, R.S. (1974), "Build your own Home", United book corporation, Poona.

(Semester- VI)

# SUSTAINABLE BUILDINGS (PRACTICAL)

Credit hrs: 2 / week Maximum Marks: 50
Exam hrs: 3 Paper: 25

1 apc1 . 25

**Internal Assessment: 25** 

# Practical

Make logos used for Green building concept
Design a logo on Green Building concept
Make a utility / decorative article out of waste.
Make a list of the articles which can be reused, recycled & reduced
Visit to sustainable buildings & make presentation.
Display on sustainable building concept.

### (Semester-VI)

### ADVANCED AUTO CAD

# (PRACTICAL)

Credit hrs: 5 / week Maximum Marks: 100

Exam hrs: 3 Paper: 50

**Internal Assessment: 50** 

#### **OBJECTIVES**

The students will learn to use AutoCAD as a drafting tool to produce accurate presentation and working drawings of their design projects and all furniture designs.

## 1. **Plotting Drawings.**

- \*Plot command.
- \* Selecting area for plotting \* Scale of plot, scale to fit. \* Selecting plotting device.
- \*Selecting paper size and type.
- \* Selecting black and white or colored plots. \* Selecting appropriate print speed, quality. \* Print preview.

# 2. **3D Modelling**

- \* Extrude section, slice, solid editing.
- \* Rendering, shading and hide commands
- \* Importing and exporting library

### **Exerxcises**

- 1. Design a Furniture for different rooms in 2D & 3D
- 2. Make detailed Plan and Sectional elevations of an Office.

#### Note:

There will be 2 practical's per week and each practical will be of two hours. Final practical examination will be of three hours.

Final practical examination will be set by the external examiner on the spot. The file work and session work will be of marks and marks respectively

# References

AutoCAD manual (Auto Desk)
Dummy Series of Books (AutoCAD)
Trences, S. and Madsen, D. AutoCAD and its Applications
Finkelstein, E. AutoCAD 2010Bible

(Semester- VI)

# CONSUMER EDUCATION (THEORY)

(Common to Composite & IDRM)

		um Marks: 50
Exan	am hrs : 3	Paper : 40
OD IE	Internal JECTIVES:-	Assessment: 10
ОБЈЕ	To enable students become potential consumer by knowing consu	mer rights and
		malpractices
	related to consumer goods.  To orient the students regarding product safety aids and ensuring the	quality purchase.
	To enlighten the students regarding the consumer protection laws redressal.	& procedure for
Instru	tructions to the examiner-	
	Each theory paper will be of three hours duration.  Questions paper will have four units.	
3. A to compu	a total of Nine questions comprising of two questions from each unit and apulsory question of short answer type covering the whole syllabus will ball questions may carry equal marks unless specified.	
5. Stu	tudents will be expected to attempt one question from each unit and compulsory question.	
	UNIT - I	
	Consumer Education- Meaning & its need.	
	Sound buying practices – What, where, how & when to make pure	chase.
	UNIT - II	
	Consumer rights & responsibilities	
	<ul> <li>Consumer protection through consumer aids – Labels, Catalogues Guarantee/Warrantee.</li> </ul>	, Advertisement,
	UNIT - III	
	UNIT – IV	
	Role of government agencies in consumer affairs - Directorate of Inspection, Bureau of Indian Standards(BIS), Food testing Labora Food Adulteration Act, Monopolistic and Restrictive Trade Practi Act(MRTP), Controller of Weights & Measures, Food Safety & S Authority of India(FSSAI)	tories under ces

# References

- 1. Premavathy Seetharaman 2002"Consumerism Strategies and Tactics" CBS Publishers & Distributers, New Delhi
- 2. H.K. Sawhney 2007"Family Finance & Consumer Studies" Elite Publishing House Pvt. Ltd. New Delhi
- 3. Khan ,Matin 2001 "Consumer Behaviour, "New Age International (p) Ltd.
- 4. Engel, F, James and Blackwell, D, Roger "Consumer Behaviour", Holt Saunders International Editions
- 5. Bitta,della, J Albert "Consumer Behaviour: Concept and Applications" McGraw Hill International editions

(Semester-VI)

# CONSUMER EDUCATION (PRACTICAL) (Common to Composite & IDRM)

Credit hrs: 2 / week Maximum Marks: 50

Exam hrs: 3 Paper: 25

**Internal Assessment: 25** 

# Practical

Prepare a list of certification marks. Make logos & write the product category
Collection & review of labels for different products. – Apparels, Food items, Electronic products.
Procedure for filing consumer complaint & redressal.
Identify the buying practices adopted by youngsters.
Identification of stamp for standard weights & measuring equipment.
Assignment on Right to Information Act and Right to Service Act
Display on consumer awareness practices.

# Survey

Visit to testing labs & report writing.

Market visits to check weights & measures and imitations.

Visit to consumer courts & report writing.

(Semester- VI)

# Economics and Entrepreneurship Development-II (Theory)

(Common to all)

Credit Hrs.: 2/week Maximum Marks: 50 Exam Hrs.: 3 Paper: 40

Internal Assessment: 10

## **Instructions to the paper setter:**

- 1. Each theory paper will be of three hours duration.
- 2. Question paper will have four units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
- 3. Student will attempt one question from each unit and the compulsory question (Total of five questions)
- 4. All questions may carry equal marks, unless specified.

# **Objectives**

- 1. To introduce the students to the world of business by developing in to them the core skills and competencies required for an entrepreneur.
- 2. To learn the process of creation and management of entrepreneurial venture.

#### Unit-I

1.	Small business enterprise management:
	<ul><li>□ Setting up of small scale enterprise.</li><li>□ Institutions assisting Small business enterprises in India</li></ul>
2.	Problems of small business enterprises in India.
	Unit-II
3.	Business Environment:
	<ul> <li>☐ Types of Business environment: Micro and Macro</li> <li>☐ Factors affecting business environment</li> </ul>
4.	Profitability of business:
	☐ Social cost and benefit Analysis

# Unit-III

5.	Business marketing:
	☐ Marketing strategies-packaging, advertising, e-marketing, personal selling
6.	Four Ps of marketing:
	☐ Product, Price, Place and Promotion.
	Unit-IV
7.	Project Finance
	<ul> <li>□ Long term and short term sources of finance</li> <li>□ Fixed capital and Working capital</li> </ul>
8.	Project Formulation
	<ul><li>□ Need and scope</li><li>□ Elements of project formulation</li></ul>
Re	commended Readings:
1.	Gupta C.B and Srinivisan N.P, "Entrepreneurial Development" Sultan Chand and Sons, New Delhi
2.	Khanna S.S, "Entrepreneuship Development" Sultan Chand and Sons, New Delh
3.	Patel, V. G., "The Seven Business Crises and How to Beat Them" Tata-McGraw, New Delhi, 1995.
4.	SIDBI Report on Small Scale Industries Sector (Latest Editions)
5.	Taneja, Satish and Gupta, S.L, "Entrepreneurship Development-New Venture Creating" Galgotia Publishing House, New Delhi, Latest Edition

(Semester- VI)

# Economics and Entrepreneurship Development-II (Practical) (Common to all)

Credit Hrs.: 2/week Maximum Marks: 50

Exam Hrs.: 3 Paper: 25

# Internal Assessment: 25 The main objective of the Paper setter:

(i) Develop the ability to select potential areas for self-employment.

(ii) To acquire the knowledge of optimum use of human resources.

#### **CONTENT**

- 1. Case study of an entrepreneur (at least one for successful and one for failure enterprise). The case study will include:
- 1. Important features of an enterprise.
- 2. Competencies of an entrepreneur.
- 3. Sources of finance
- 4. Reasons for success and failures.
- 5. Preparation of a report on the basis of case study analysis and giving innovative ideas for better enterprise management.
- 2. Developing a Business Plan for Micro enterprises. Calculation of Breakeven point and conducting feasibility analysis.
- 3. Steps to organize and manage any one of the

following: a. Cafeteria/Diet clinic

- b. Nursery school/Day care
- c. Boutiques/window and interior store display
- d. Interior Design studios.

(Semester- VI)

# EXTENSION EDUCATION-II THEORY (COMMON TO ALL)

Credit hours: 2/week Maximum Marks: 50
Exam Hrs.: 3 Paper: 40
Internal Assessment: 10

### **Objectives:**

- 1. To understand the concept of extension and its relevance for self & national development.
- 2. To appreciate the role of Home Science extension in community development.
- 3. To create awareness about rural development and various programs and agencies involved in it.

# Instructions to the paper setter:

- 1. Each theory paper will be of three hours duration.
- 2. Question paper will have four units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
- 3. Student will attempt one question from each unit and the compulsory question (Total of five questions)
- 4. All questions may carry equal marks, unless specified.

### UNIT - I

1.	Rur	al development  Concept of rural development  Role of extension workers in rural development  Qualities of extension worker
2.	Ru	ral Development Programmes in India Integrated Child Development Service (ICDS) Integrated Rural Development Programme (IRDP) Mahatma Gandhi National Rural Employment Guarantee Act(MGNREGA)
		UNIT – II
3.	Cor	Concept and origin of community development Basic features of community development Philosophy of community development

4.	Introduction to Panchayati Raj-			
	☐ Concept of three tier system of administration			
	□ Evolution of panchayati Raj			
	☐ Meaning of democratic decentralization			
	UNIT – III			
5.	Extension programme			
	☐ Concept of extension programme.			
	☐ Characteristics of a good extension programme.			
6.	Participation in extension programme			
	☐ Advantages of people's participation in extension programme			
	☐ Reasons for non-participation of people			
	☐ Levels of participation			
	UNIT – IV			
7.	Extension programme planning			
	☐ Concept of extension programme planning			
	☐ Principles of extension programme planning			
8.	Process of Extension Programme Planning-Collect facts, analyse situation, identifying problems, decide objectives, develop plan of work, execute plan, evaluation of progress, reconsideration			

(Semester-VI)

# EXTENSION EDUCATION-II (PRACTICAL) (COMMON TO ALL)

Credit hours: 2/week Maximum Marks: 50

Exam Hrs.: 3 Paper: 25 Internal Assessment: 25

## **Objectives:**

1. To enable the students to carry out their social responsibility by extending their knowledge and services to the people in need.

2. To develop skills in the use of participatory approaches in programme planning and evaluation.

### **Instructions for Paper Setter:**

- 1. Each practical paper will be of 3 hours duration.
- 2. The question paper should cover the entire syllabus.
- 3. The file work and viva voice will be of 5 and 10 marks respectively (Total = 15 marks)

## **CONTENTS**

- 1. Survey of a specific community for need assessment.
- 2. Presentation of planning and organization of a need based extension programme for the selected community in relation to anyone of the following aspects:-.
  - a. Literacy
  - b. Income Generation
  - c. Health
  - d. Social Evil
- 3. Conduct an extension or outreach activity in a selected community.
- 4. Evaluation of the above extension or outreach activity conducted.

#### RECOMMENDED READINGS:

- 1. Dhama, O.P. Bhatnagar, O.P., Second Edition 1985, Education and Communication for Development, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
- 2. Dubey V.K. and Bishnoi Indira, First Edition 2008, Extension Education and Communication, New Age International Publishers, New Delhi.

- 3. Supe S.V., Second Edition 1997, An Introduction to Extension Education, Oxford and IBH Publishing Co.Pvt.Ltd, New Delhi.
- 4. Ray G.L., Seventh Edition, 2008, Extension Communication and Management, Kalyani Publishers, New Delhi.
- 5. Desai Vasant, First Edition 1991, Fundamentals of Rural Development, Himalaya Publishing Henge.
- 6. Oakley P. and Garforth C. FAO, 1985, Guide to Extension Training.
- 7. Singh K. Uttam, Nayak A.K., Commonwealth Publishers, 2005, Extension Education.