CURRICULUM FOR THREE YEAR
(SIX SEMESTER)
DIPLOMA COURSE IN

TEXTILE DESIGN

Effective from Session

UNDER DEVELOPMENT

Semester System

Prepared By

Curriculum Development Cell

INSTITUTE OF RESEARCH DEVELOPMENT
& TRAINING, U.P., KANPUR

APPROVED BY

BOARD OF TECHNICAL EDUCATION
U.P. LUCKNOW,
CORRECTED AS SYLLABUS COMMITTEE OF:
B.T.E. MEETING HELD ON 10.06.2015:

Corrected and Approved By B.T.E. On Dated 10.06.2015

STUDY AND EVALUATION SCHEME FOR
THREE YEAR (SIX SEMESTER)DIPLOMA COURSE IN TEXTILE DESIGN
(Effective from session)

(Common to Three year Diploma Course in Textile Design.Spl. in Printing)

I SEMESTER

Curriculum							Scheme of Examination									
Periods Per Week						S U B J E C T	Theory				Practical					Grand Total
Lec.	Tutorial	Draw	Lab	Work Shop	Total		Examination Dur.	Examination Marks	Sess. Marks	Total Marks	Examination Dur.	Examination Marks	Sess. Marks	Total Marks		
5	-	-	3	-	8	1.1 Professional Communication	2.5	50	20	70	3	20	10	30		100
4	2	-	-	-	6	1.2 Textile Materials	2.5	50	20	70	-	-	-	-		70
4	2	-	-	-	6	1.3 Yarn Manufacturing Process Practicals	2.5	50	20	70	-	-	-	-		70
-	-	-	16	-	16	1.4 Basic Design & Sketching	--	--	--	--	4	100	50	150		150
-	-	-	8	-	8	1.5 Identification of Textile Materials	--	--	--	--	4	100	50	150		150
13	4	-	27	-	44	<---------TOTAL---------->	--	150	60	210		220	110	330		540
						Games/NCC/Social and Cultural Activities + Discipline (15 + 10)										25
															TOTAL	565

II SEMESTER

4	2	-	-	-	6	2.1 Indian Traditional Textile	2.5	50	20	70	-	-	-	-		70
4	2	-	-	-	6	2.2 Fabric Manufacturing Process-I Practicals	2.5	50	20	70	-	-	-	-		70
-	-	-	14	-	14	2.3 Drawing & Study of Objects	--	--	--	--	4	75	40	115		115
-	-	-	12	-	12	2.4 Craft Practice	--	--	--	--	4	75	40	115		115
2	-	-	5	-	7	2.5 Introduction To Computer	--	--	--	--	3	60	30	90		90
10	4	-	31	-	45	<---------TOTAL---------->	--	100	40	140		210	110	320		460
						Games/NCC/Social and Cultural Activities + Discipline (15 + 10)										25
															TOTAL	485

NOTE :-
(1) Each period will be of 50 minutes duration.
(2) Each session will be of 16 weeks.
(3) Effective teaching will be of atleast 14 weeks.
(4) Remaining periods will be utilised for revision etc.
(5) For Community Development work see Annexure-I.

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III Semester

Curriculum							Scheme of Examination								
Periods Per Week						S U B J E C T	Theory			Practical				Grand Tot-al
Lec.	Tutorial	Draw	Lab	Work Shop	Total		Examination Dur.	Sess. Marks	Total Marks	Examination Dur.	Sess. Marks	Total Marks		
4	2	-	-	-	6	3.1 Textile Colouration	2.5	50	20	70	-	-	-	-	70
6	2	-	-	-	8	3.2 Fabric Construction & Cloth Analysis Practicals	2.5	50	20	70	-	-	-	-	70
-	-	-	12	-	12	3.3 Drawing & Rendering	--	--	--	--	4	80	40	120	120
-	-	-	10	-	10	3.4 Textile Colouration	--	--	--	--	3	80	40	120	120
-	-	-	8	-	8	3.5 Fabric Construction & Cloth Analysis	--	--	--	--	3	80	40	120	120
10	4	-	30	-	44	<---------TOTAL---------->	--	100	40	140		240	120	360	500
						Games/NCC/Social and Cultural Activities + Discipline (15 + 10)									25
															525

IV Semester

4	2	-	-	-	6	4.1 Textile Printing	2.5	50	20	70	-	--	--	--	70
6	2	-	-	-	8	4.2 Fabric Manufacturing Process-II	2.5	50	20	70	-	-	-	-	70
4	2	-	-	-	6	4.3 Textile Design-I Practicals	2.5	50	20	70	-	-	-	-	70
-	-	-	10	-	10	4.4 Textile Printing	--	--	--	--	4	80	40	120	120
-	-	-	12	-	12	4.5 Textile Design-I	--	--	--	--	3	80	40	120	120
14	6	-	22	-	42	<---------TOTAL---------->	--	150	60	210		160	80	240	450
						Games/NCC/Social and Cultural Activities + Discipline (15 + 10)									25
															475

NOTE :-
(1) Each period will be of 50 minutes duration.
(2) Each session will be of 16 weeks.
(3) Effective teaching will be of atleast 14 weeks.
(4) Remaining periods will be utilised for revision etc.
(5) Four weeks structured and supervised,branch specific,task oriented industrial/field exposure to be organised after IV semester. Students will submit a report, there shall be 65 marks for this exposure, these marks shall be awarded by the project examiner in the VI Semester exam. (Examination marks: 40 Sess. marks: 25).
(6) Field visits and extension lectures are to be organised and managed well in advance at institute level as per need.
(7) For Community Development work see Annexure-I.

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STUDY AND EVALUATION SCHEME FOR
THREE YEAR DIPLOMA COURSE IN TEXTILE DESIGN
(Effective from session)

V Semester

CURRICULUM						SCHEME OF EXAMINATION								
PERIOD PER WEEK					S U B J E C T S	THEORY				PRACTICAL				
Lect	Tut.	Drc./ Pract	W/S	Total		Examination Dur.	Examination Marks	Sessl Marks	Total Marks	Examination Dur.	Examination Marks	Sessl Marks	Total Marks	Grand Total
4	2	-	-	6	5.1 Garment Technology	2.5	50	20	70	-	-	-	-	70
6	2	-	-	8	5.2 Textile Design-II	2.5	50	20	70	-	-	-	-	70
6	2	-	-	8	5.3 Professional Studies	2.5	50	20	70	-	-	-	-	70
					PRACTICALS									
-	-	10	-	10	5.4 Garment Technology	-	-	-	-	4	100	50	150	150
-	-	10	-	10	5.5 Textile Design-II	-	-	-	-	4	100	50	150	150
18	6	22	-	42	T O T A L		150	60	210		200	100	300	510
					Games/NCC/Social & Cultural activity/Community Development Work+ Discipline								(15+10)	25
											Aggregate			535

VI Semester (COMMON TO TEXTILE DESIGN(PRINTING)

4	-	-	-	4	6.1 Environmental Education *	2.5	50	--	--	-	-	-	-	--
					& Disaster Management									
4	2	-	-	6	6.2 Fashion Studies	2.5	50	20	70	-	-	-	-	70
6	2	6	-	14	6.3 Textile Testing	2.5	50	20	70	6	40	20	60	130
					PRACTICALS									
2	-	10	-	12	6.4 Application of CAD	-	-	-	-	4	100	50	150	150
-	-	8	-	8	6.5 Project (i) Viva-Voce	-	-	-	-	Viva	125	50	175	175
					(ii) Field Exposure	-	-	-	-	Viva	30	20	50	50
					(Done After in IV Sem.)									
16	4	24	-	44	T O T A L		100	40	140		295	140	435	575
					Games/NCC/Social & Cultural activity/Community Development Work+ Discipline								(15+10)	25
											Aggregate			600

30% Carryover of I & II Sem.	315
70% Carryover of III & IV Sem	700
100% Carryover of V & VI Sem.	1135
GRAND TOTAL	2150

NOTE :-
(1) Each period will be of 50 minutes duration.
(2) Each session will be of 16 weeks.
(3) Effective teaching will be of atleast 14 weeks.
(4) Remaining periods will be utilised for revision etc.
(5) Field visits and extension lectures are to be organised and managed well in advance at institute level as per need.
(6) For Community Development work see Annexure-I.
(7) In Field Exposure at least one seminar is compulsory in the Final Year and the sessional marks will alloted after the seminar.
(8) (*) It is compulsory to appear & to pass in examination, But marks will not be included for division and percentage of obtained marks.

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II. MAIN FEATURES OF THE CURRICULUM

TITLE OF THE COURSE		DIPLOMA IN TEXTILE DESIGN
DURATION OF THE COURSE		THREE YEAR(SIX SEMESTER)
TYPE OF THE COURSE		FULL TIME
PATTERN OF THE COURSE		SEMESTER SYSTEM
INTAKE		60
ENTRY QUALIFICATION		Passed High School with 35% Marks
MODE OF ADMISSION		THROUGH JOINT ENTRANCE EXAMINATION

List of exprets who contributed in the development of the curriculum in Semester System for the Three year (Six Semester) Diploma Textile Design at I.R.D.T., U.P., Kanpur on 15-04-15 are honourable named below :.

1.	Shri B. D. Dixit	Professor I.I.C.T., Bhadohi
2.	Shri R. K. Srivastava	H.O.D. Govt. Girls Poly.,Allahabad
3.	Shri D. K. Verma	H.O.D. Govt. Poly. Varanasi
4.	Shri Brajesh Misra	Lecturer Govt. Poly., Mau
5.	Shri Pankaj Yadav	Professor I. R.D. T., U.P. Kanpur

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IV. NEED ANALYSIS & CURRICULUM PROFILE

The process of education is to impart knowledge and skill to the students of a desired need. The need of this desire changes with the objectives and need of the time. At any level, need of the time is more pressing factor, so the development of curriculum of Textile Design with specification in Printing felt necessary due to the fast changing patterns and fashion in textile printing and designs. The curriculum in Textile Design has been running since long and it become invetable now to develop to meet the present demand of the world of work in terms of the skill of the personnel concerned in Textile Design & Printing. For this reason it was decided to develop a curriculum for the three year diploma in "Textile Design with spl. in Printing".

In developing the curriculum, professional of the relevent fields related to our problem were contacted personally and workshop was organised at this institute in which experts from higher technological institutes, fidld organisation and polytechnics participated and a draft curriculum was developed. The experts appreciated the idea introducing a subject of "Advance Textile Printing" in the existing curricula of Textile Design as an additional subject. The content of the subject is so developed as may befit the world of work and suffice enough to serve the purpose.

It is hope that the curriculum of Diploma in Textile Design with will prove useful in producing the desired type of middle level trained manpower for Textile Design as well as Textile Printing industry.

V. JOB OPPORTUNITIES

After completing the course, students can venture to enter into the under mentioned fields.

- Medium & Small scale industries
- Garment manufacturing industries
- Garment Sales Emporium
- Department of Education
- Orphanage
- Women Prison
- Deaf & Dumb Schools
- Angan bari
- Film Industry
- Advertising industry
- Modelling
- Fashion Designing
- Article Writing in Ladies Fashion magazines
- Painting on Pottery
- Enterpreneur

I- Textile Designer

II- Botic/Stencil/Screen Printing

III- Interior Decoration Courses

IV- Drawing & Painting Courses

V- House hold decorative Textile Articles

VI- Dying/Bleaching

VII- Garment Manufacturing

VIII-Consultancy Services.

I Semester

1.1 PROFESSIONAL COMMUNICATION

[Common to All Engineering/Non Engineering Courses]

L	T	P
5	-	3

Rationale:

Communication forms an important activity of diploma holder. It is essential that he/she should be in a position to communicate in writing and orally with superiors,equals and subordinates. This subject aims at providing working knowledge of languages like Hindi and English so as to train the students in the art of communication. It is suggested that maximum attention should be given in developing Communication abilities in the students while imparting instructions by giving maximum emphasis on practice.

Sr.No.	Units	Coverage time L	T	P
1.	Introduction to communication methods meaning,channels & media written and verbal.	5	-	-
2.	Development of comprehension of English & Hindi through study of text material& language exercises.	10	-	-
3.	Development of expression through			
	A. Letters(English & Hindi)	10	-	-
	B. Report writing (English)	10	-	-
	Note making and minutes writing			
4.	Paragraph writing, Essey writing, Proposal writing	10	-	-
5.	Composition	10	-	-
6.	Remecial Grammer & Vocabulary Building	15	-	-
		70	-	42

1. PART I : COMMUNICATION IN ENGLISH (40 Marks)

1.1 Concept of communication, importance of effective communication, types of communucation, formal, informal, verbal and nonverbal, spoken and written. Techniques of communication, Listening, reading, writting and speaking, Barriers in communication, Modern tools of communication- Fax, e-mail, Telephone, telegram, etc.

1.2 Technical communication Vs. General Communication : Development of comprehension and knowledge of English through the study of text material and language exercises based on the prescribed text book of English.

1.3 Development of expression through:

1.3.1 Paragraph writing, Essay writing, Proposal writing.

1.3.2 Business and personal correspondence (Letters) :
Kinds of letters:-
Official, demi-offical, unofficial , for reply or in reply, quotation, tender and order giving letters. Application for a job, Resume.

1.3.3 Report writing and Note making and minutes writing.

1.4 Functional Grammer : Study of sentences and parts of speech (word class), Preposition, Verb, Articles, Abbreviations.

1.5 Vocabulary Building : Homophones, One word substitution, Idioms and Phrases.

1.6 Composition on narrative, descriptive, imaginative, argumentative, discussion and factual topics.

2. PART II : COMMUNICATION IN HINDI (10 Marks)

2.1 Development of comprehension and knowledge of Hindi usage through rapid reading and language exercises based on prescribed text material developed by IRDT.

2.2 Development of expression through ;

Letter writing in Hindi:
Kinds of letters:-
Official, demi-offical, unofficial , for reply or in reply, quotation, tender and order giving letters, Application for a job, Press release in Hindi, Report writing.

Note: Paper should be in two parts, part I - English and part II Hindi.

REFERENCE BOOKS

1. Bookshelf worksheet of Professional Communication, New Delhi : Bookshelf 2008

2. Functional Skills in language and literature by R. P. Singh, New Delhi : Oxford University Press.

3. Oxford Engilsh Hindi English Dictionary, New Delhi : Oxford 2008

LANGUAGE LAB PRACTICE

For the practice/exercise the following is suggested :-

1.A. Phonetic transcription
B. Stress and intonation :
(At least 10 word for writting and 10 word for pronunciation)

2. ASSIGNMENT : (Written Communication)

Two assignment of approximately 400 word each decided by the teacher concerned.

THE FOLLOWING MODEL IS PROPOSED :

1. a picture/photograph
2. an opening sentence or phrase

3. a newspaper/magzine clipping or report
4. factual writting which should be informative or argumentative.

(The students may refer to "Bookshelf worksheet" for technical communication)

3. Oral Conversation:

1. Short speeches/declamation : Bid farewell, Felicitate somebody, Celebrate a public event, Offer condolences
2. Debate on current problems/topics
3. MockInterview : Preparation, Unfolding of personality and Expressing ideas effectively
4. Group discussion on current topics/problems
5. Role Play/ general conversation : Making polite enquiries at Railway Station, Post Office, Banks and other Public places, Replying to such enquiries, enquiring about various goods sold in the market and discussing their prices. Complaining about service at Hotel, restaurant, Offering apologies in reply to such complaints, complain to a company about a defective product you have brought, reply to such complaints.
6. Presentation skill, Use of OHP and LCD.
7. Through drilling of model words involving different phonetic symbols (Vowels, Consonants, Difthongs).

4. Aural :

Listening to conversation/talk/reading of short passage and then writting down the relevant or main points in the specified number of words and answering the given questions

The assignments/project work are to be evaluated by the internal/ external examiner. The distribution of 30 marks e.g.

10 marks for assignment (Given by subject teacher as sessional marks)
10 marks for conversation and viva-voce
10 marks for phonetic transcription

STRUCTURE OF THE PAPER OF PROFESSIONAL COMMUNICATION

Distribution of Marks

Theory Paper : 50 Marks
Sessional : 20 Marks
Pratices : 30 Marks

Q1. Question based on the topics of the prescribed syllabus will be set for testing candidates ability to understand the content, explain words and phrases, making sentence of given words and ability to summarise will be included. All questions will have to be answered.

A. from English Text Book 10 Marks
B. from Hindi Text Book 5 Marks

Q2. Candidates will be required to write one letter (English) and one letter in (Hindi) from a choice of two -

A. English Letters 5 Marks
B. Hindi Letters 5 Marks

Q3. Report Writting on given outlines 5 Marks

Q4. There will be a number of short answer questions to test the candidates knowledge of functional grammer, structure and usage of the language. All the items in this question will be compulsory. The grammar questions has four parts -

(Total Part: A For 5 Marks, B For 3 Marks, C For 3 Marks and D For 4 Marks)

A. This part of the question has to do with the transformation of sentences. English uses several patterns of sentence formation and the same meaning can be expresed by several patterns e.g. Active to Passive voice and vice versa, Direct to Indirect and vice versa, Reframing sentences by changing part of speech e.g Noune to Adjective, Interchanging degree of comparison.

Interchanging Moods - Affirmative to Negative, Assertive to Interrogative or to exclamatory

B. The second part usually requires blanks in a sentence to be filled in with a suitable preposition and articles.

C. The third part is usually an exercise on tenses.

D. The fourth part concerns with one word substitution and abbrevation, uses of idioms and Phrases, Homophones.

Q5. COMPOSITION : (About 300 Words) (5 marks)

Candidates will be required to select one composition topic from a choice of five. The choice will normally include narrative descriptive, argumentative, discussion and factual topics. The main ceteria by which the composition will be marked are as follows

A. the quality of the language employed, the range and appropriateness of vocabulary and sentence structure the correctness of grammatical construction, punctuation and spelling.

B. The degrees to which candidate have been successfully in organising both the composition as a whole and the individual paragraphs.

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1.2 TEXTILE MATERIALS

(Common to Three year Diploma course in Textile Design (Printing))

L	T	P
4	2	-

RATIONAL :

The students of textile design have to deal with the different types of designs over variety of textile fabrics. Before going through the design aspect one must know about the different types of materials used in fabric manufacture. The students are expected to know the varieties of different materials of the textile.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	8	4
2.	TOPIC-II	8	4
3.	TOPIC-IV	8	4
4.	TOPIC-V	8	4
5.	TOPIC-VI	12	6
6.	TOPIC-VII	12	6
	TOTAL	56	28

DETAILED CONTENTS

I- Introduction to world's sources of textile fibres (natural and manmade) and their utilisation General classification of fibres.

II- Essestional properties and uses of various varieties of cotton. Introduction to bast fibres; Flex, Jute, Hemp and Rammie.

III- Introduction to natural silk. Rearing of silk worm. Properties and uses of various types of silk, silk reeling, Throwing and weighting.

IV- Introduction to wool-merino Mohair, Kashmere, Camel and alpaca. sorting and grading of wool. Introduction to wool fibre and elementary idea of different wool.

V- Introduction to Manmade fibres such as Nylons, Terelene, Acrylic and Rayons - Viscose, Acetate and Cupramonium.

VI- Introduction various to blends of the fibres, care of fabrics, spots removing, types of removing agent.

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1.3 YARN MANUFACTURING PROCESS

(Common to Three year Diploma course in Textile Design (Printing))

L	T	P
4	2	-

TOPICWISE DISTRIBUTION OF PERIODS :

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	10	5
2.	TOPIC-II	10	5
3.	TOPIC-III	12	6
4.	TOPIC-IV	12	6
5.	TOPIC-V	12	6
	T O T A L	56	28

DETAILED CONTENTS

I. Flow chart of the processes involved in the Conversion of fibres into Yarn and objective of different processes.

II. Brief study and working principles of blow room and carding.

III. Brief description and working of draw frame, combing and speed frame

IV. Brief description and working of ring frame, dubling frame and reeling.

V. Types of yarn and their uses along with brief idea of manufacturing, Numbering system and characteristics such as strength, twist and evenness of yearn. (No numerical question should be asked in the examination).

1.5 BASIC DESIGN & SKETCHING

(Common to Three year Diploma course in Textile Design)

L	T	P
-	-	16

RATIONAL :

Basic design aims at bringing about various attributes to the viewer sensitive to environment.The students should be assigned appropriate learning exercises so as to enable them to discover the principles and elements of design. Emphasis should be laid on exercies pertaining to the study of nature and environment.Student should be exposed to nature and environment through performing arts,rural environment,natural scenery, landscapes etc. The emphasis should be on creativity rather than sticking to rules or preconceived notions.

By the study of this subject the students will be skilled in free hand sketching of the various types of objects generally used in the textile designs. They will also be acquainted in using colours including poster colours in the variety of objects. They will be trained in taking photograps and finding the motive from them.

BASIC DESIGN :

1.INTRODUCTION TO ALL MEDIAS OF EXPRESSION,TOOLS AND ART MATERIALS

Pencils.
Types of colour.
Paper and other materials.
Equipment for creating textures.
T-Squares,set-squares,drawing board.
Compass and liner.
Use of Epidiascope and Photocopier for enlargement and reduction of froms and figures.

2. OBSERVATION AND RECALL AS AIDS TO EXPRESSION :

Observing and recapitulating a given object or situation using any mode of expression.

3. IMPORTANCE OF ELEMENTS OF BASIC DESIGN :

Dots, Lines and shapes, Tint, Shade and Tones.
colour and texture.

4. PRINCIPLES OF BASIC DESIGN |

Relationship of negative and positive space, Balance.
Proporation,scale,harmony,contrast,variety unity,
Rhythm.

5. OBSERVATION OF ART FORMS |

Traditional and modern.
Realistic and abstract.
Folk and geometric.

6. CONCEPT OF ILLUSTION IN ART EXPRESSION |

Three dimensional effect.
Optical Illusion.

. VALUE OF FORM IN SPACE |

A form with different placement in colour.

In order to enable the student to understand the various terms used in art,he/she is to be assigned the task of collecting about 100 to 120 such words and corresponding visual interpretations of their meanings in the form of an album and submit the same at the end of the session.The teacher will supply the word list.

SKETCHING :

All the following to be done in different mediums i.e. pencil/ ink/felt pen/crayon

A. Sketches of flowers and twigs.
B. Sketches of vegetables and fruits.
C. Sketches of trees and foliage.
D. Sketches of public places.
E. Sketches of animals and birds.
F. Landscape drawing
G. Drawing of monuments.
H. Museum sketches.

1.6. IDENTIFICATION OF TEXTILE MATERIALS

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	8

RATIONALE :

It is the further addition of knowledge of the subject Textile Materials. In this the students will be practically acqinted with the materials used in textile fabrics.

Inspection and classification of various types of textile materials covered in the subject. Textile Materials also to visualise for collecting informations regarding distinguishing features.

1. To distinguish animal fibres from vegetable fibres.

2. To distinguish

   A. silk from wool fibres
   B. nylon from other fibres
   C. polysters from other fibres
   D. Viscose rayon, cupramminium rayon and acetate rayon fibres

3. To distinguish linen from cotton

4. To distinguish orlon/acrylic fibres from other fibres.

5. To identify textile fibres such as cotton, wool, silk, jute, viscose rayon, polyster, nylon and acrylic fibres under microscope and to draw their longitudinal and cross sectional views.

6. Introduction to different types of yarn : Fancy yarn, Spun Yarn, Filament, Mono, Multi yarn, Ply yarn, Textured Yarn.

7. Introduction to different types of commerical fabrics.

II Semester

2.1INDIAN TRADITIONAL TEXTILE

(Common to Three year Diploma course in Textile Design (Printing))

L	T	P
4	2	-

RATIONALE :

The developmental history of textiles proves many times more enlightening to deal and solve even the present day problems. So its importance can not be ignored.

TOPICWISE DISTRIBUTION OF PERIODS :

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	Phulkari	2	1
2.	Patola	2	1
3.	Sanganari	2	1
4.	Kalamkari	2	1
5.	Bandhani	2	1
6.	Brocades & Jamdani	2	1
7.	Chanderi	2	1
8.	Kullu Shawls	2	1
9.	Kashmir embroidary	2	1
10.	Ikat	2	1
11.	Madhubani	2	1
12.	Bengal Kantha	2	1
13.	Jamavar	3	1
14.	Dharmavaram	3	1
15.	Tanchoi & Baluchar	2	1
16.	Kanchipuram	2	1
17.	Carpets & floor Covering	2	1
18.	Chickankeri	2	1
NTRODUCTION TO INDIAN CRAFT :			
1.	TEXTILE CRAFTS	9	5
2.	STUDY OF MOTIVES	9	5
	T O T A L	56	28

DETAILED CONTENTS

The following topics should be covered in History of textiles-I.

1.	Phulkari	2.	Patola
3.	Sanganari	4.	Kalamkari
5.	Bandhani	6.	Brocades & Jamdani
7.	Chanderi	8.	Kullu Shawls
9.	Kashmir embroidary	10.	Ikat
11.	Madhubani	12.	Bengal Kantha
13.	Jamavar	14.	Dharmavaram
15.	Tanchoi & Baluchar	16.	Kanchipuram
17.	Carpets & floor Covering	18.	Chickankeri

INTRODUCTION TO INDIAN CRAFT :

A brief introduction to the following craft with special reference to their location tools and materials used, and their special features.

1.	Textile crafts :	Tie and dye, Bandhini, Patola, Phulakari, shawls, Embroidery, Block printing, Mirror work, Ceramics, Fabric Painting
2.	Study of Motives :	Study of motives used in Traditional designs of different states of India. Study of motives related to wood work, metal work, Pottery, Ivory and stone work.

Note : Only Indian art and Craft should be asked in the examination.

Corrected and Approved By B.T.E. On Dated 10.06.2015

2.2 FABRIC MANUFACTURING PROCESS-I

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
4	2	-

RATIONALE :

Aim of this paper is to give new intrants in the field of textile first hand knoledge of principles and processes involved in preparation for weaving.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	22	12
2.	TOPIC-II	6	4
3.	TOPIC-III	22	10
4.	TOPIC-IV	6	2
	T O T A L	56	28

DETAILED CONTENTS

I.A. Flow chart of the process involved in preparation for weaving

B. Winding

i. Its Objects , types on basis of machine speed and winding packages. Passage of material through upright spindle winding machine (Slow speed) and any high speed drum winding machine e.g. Rotaconer

ii. Faults found in winding package.

iii. General idea of pirn winding and its need and advantages.

II. Warping :- Its main objects, general idea of beam and sectional warping machine

III. Sizing :- Its main objects, methods of sizing on the basis of drying system used for drying wet yarn and on the basis of amount of size put on yarn.

ii. Sizing ingredients for cotton and cotton blade.

iii. Passage of warpsheet through Slasher sizing machine and knowledge of necessary parts of machine.

IV. Drawing in & Beaming :- Main objects, different method used in textile industry.

2.3 DRAWING AND STUDY OF OBJECTS

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	14

RATIONALE :

It is the further knowledge of sketching in which the students will be made perfect in making drawings of different objects in pencil with light & shade. They will also be made well versed in using colours in the variety of objects.

Study of the following in pencil with light and shade.

1. Wooden Blocks.
2. Bottles, Earthen pots
3. Plates.
4. Bowl.
5. Books.
6. Cups and saucer etc.
7. Jug, Mug, Bucket
8. Vessels, Other than indicated above
9. Chairs
10. Tables and stool, etc.

2.4 CRAFT PRACTICE

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	12

RATIONALE :

This is skill oriented subject for the students by which they will make different types of designs by cutting & pasting with their own hands by which they can make utility article which they see in their surrounding. They will make practice in Printing with different styles.

(i) Introduction to various material and epuipment used in handicrafts and their commericial application.

(ii) Painting on pottery.

(iii) Embriodery sample file.

(iv) Application of Quilting in Textiles

(v) Application of Patch work in Textile

(vi) Fastivals Hanginges pertaining to textiles

(vii) Doll making & Soft toys.

(viii) Wall Hanging.

(ix) Fabric Painting

2.5 INTRODUCTION TO COMPUTER

[Common with Civil Engg., Civil (Spl. With Rural), Mechanical Engg.,(Specialisation in Production, Automobile, Refrigeration and Air conditioning), Electronics Engg.,Instumentation and Control Engg., Dairy Engg., Leather Technology, Footwear and Leather Goods Tech., Cermics, Chemical Engg.(Four year Sandwitch), Chemical Tech. (Rubber & Plastic), Chemical Tech. (Fertilizer)]

L	T	P
2	-	5

Rationale:

Computers are being used for design and information processing in all branches of engineering. An exposure to fundamentals of computer programming is very essential for all diploma holders. this subject has been included to introduce students in the use and application of computers in engineering.

TOPIC WISE DISTRIBUTION OF PERIODS

Sl.No.	Units	Coverage Time L	T	P
1.	Introduction to Computer	4	-	-
2.	Introduction To Operating System (MS DOS/Windows)	3	-	-
3.	Word Processing	4	-	-
4.	Worksheet	4	-	-
5.	Presentation	4	-	-
6.	Data Base Operation	3	-	-
7.	Introduction to Internet	2	-	-
8.	Introduction to advance tools	4	-	-
		28	-	70

DETAILED CONTENTS

1. Introduction to Computer:

   A. Block Diagram of Computer.
   B. Types Of Computer
   C. Types of Input and Output devices
   D. Memories Devices (Its Types and Basic).

2. INTRODUCTION TO OPERATING SYSTEMS (MS-DOS/MS-WINDOWS:)

   What is operating system, its significance, Commands of DOS, Features/Application of window.

3. WORD PROCESSING:

   File : Open, Close, Save, Save as, Search, Send to, Print Preview, Print and Page Setup
   Edit : Cut, Copy,Paste, Office Clipboard, Select All, Find, replace, Goto, etc.
   View : Normal/Web Layout/Print Layout; Tool Bars; Header/Footer; Zoom, etc.
   Insert: Break, Page Number, Date & Time, Symbol, Comment, Reference, etc.
   Format: Font, Paragraph, Bullets & Numbering, Borders &

Shading, Column, Change case, Back ground, etc.
Tools : Spelling & Grammer, Language, Word Count, Letters & Mailing, Options, Customize, etc.
Table : Draw, Insert, Delete, Select, Auto Format, AutoFit, Convert, Sort, Formula, etc.
Mail Merge

4. WORKSHEET:

Introduction, Use of Tools/Icons for preparing simple Mini Project.

5. PRESENTATION :

Introduction, Use of Tools/Icons for preparing simple presentation on Power Point.

6. DATABASE OPERATION :

Create database using MS Access, Create Table and Creating Reports.

7. Introduction to Internet:

What is Network, How to send & receive messages, Use of Search Engines, Surfing different web sites. Creating Mail ID, Use of Briefcase, Sending./replying emails.

8. INTRODUCTION TO ADVANCE TOOLS :

I. Steps requires to solving problems.
A. Flow Chart
B. Algroithm
C. Programming

II. Use of advance Tools such as Skype, Teamviewer, Installation of Modem, use of WiFi, Etc.

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INTRODUCTION TO COMPUTER LAB

List Of Practicals

1. Practice on utility commands in DOS.
2. Composing, Correcting, Formatting and Article (Letter/Essay/ Report) on Word Processing tool Word and taking its print out.
3. Creating, editing, modifying tables in Database tool.
4. Creating labels, report, generation of simple forms in Database tool.
5. Creating simple spread sheet, using in built functions in Worksheet tool..
6. Creating simple presentation.
7. Creating mail ID, Checking mail box, sending/replying e-mails.
8. Surfing web sites, using search engines.

Note : In the final year, related students have to use the concept of MS Word/MS Excel/MS Access/ MS Power Point in their respective branch's project work such as creating project report through MS Word/Creation of statistical data in MS Excel/Creation of database in MS Excel/ Demonstration of project through Power Point Presentation.

Corrected and Approved By B.T.E. On Dated 10.06.2015

III Semester

3.1 TEXTILE COLOURATION :

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
4	2	-

RATIONALE :

The purpose of colouring textile is to make it attractive to eyes. There are many a techniques & procedures developed for colouring & dyeing the fabrics made of various kinds of fibres. There knowledge is essential for decorating the product to suit the mood and taste of the consumer.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	8	4
2.	TOPIC-II	6	3
3.	TOPIC-III	6	3
4.	TOPIC-IV	6	3
5.	TOPIC-V	8	4
6.	TOPIC-VI	8	4
7.	TOPIC-VII	6	3
8.	TOPIC-VIII	8	4
	T O T A L	56	28

DETAILED CONTENTS :

1. Preparatory processes, Singeing, desizing, scouring and bleaching for cotton, wool and silk.
2. Brief study on the necessity and use of optical whitening agents.
3. Classification of dyes according to application, Principal classes of natural and synthetic dyes.
4. Definition of Dyeing, methods of dyeing.
5. Principal classes of dyes used for cotton, wool and synthetic fibres, limitations of dyestuffs on different fabrics.
6. Common methods of dyeing cotton with direct vats and napthol colours, wool dyeing with acid and manmade colours polyestor by disperse, use of assistant & textile auxiluries in dyeing.
7. Difficulties in dyeing synthetic fibres by the common methods and ways of overcoming them.
8. Factors effecting colour fading, dye fastness.

NOTE : Since the paper deals with general methods of textile colouration, chemistry aspect will not be touched therein.

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3.2 FABRIC CONSTRUCTION & CLOTH ANALYSIS :

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
6	2	-

RATIONALE :

The importance of the paper lies in the fact that it introduces the reader with different varieties of the fabric and designs and related technical terminology. Knowledge of these things very base of textile designer's working.

TOPICWISE DISTRIBUTION OF PERIODS :

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	8	3
2.	TOPIC-II	8	3
3.	TOPIC-III	8	3
4.	TOPIC-IV	8	3
5.	TOPIC-V	12	4
6.	TOPIC-VI	8	2
7.	TOPIC-VII	8	3
8.	TOPIC-VIII	8	2
9.	TOPIC-IX	8	3
10.	TOPIC-X	8	2
	T O T A L	84	28

DETAILED CONTENTS :

I. Classification of woven fabrics.

II. Introduction to technical terms used in cloth construction. Warp, weft, ends, picks, weave, design, repeat of design draft, pegplan and denting plan

III. Methods of ornamenting a fabric.

IV. Plain weave and its derivatives ie, warp rib, weft rib, and matt or hopsack or basket.

V. Regular twill weaves and their derivatives such Pointed, Herring bone, Zigzag-wavy, Curved,Broken, Re-arranged, Fancy twill, Combined twill and Diamonds.

VI. Satin and sateen weaves, cork screw twills etc.

VII. Towelling weaves-Huckaback, honeycomb and brighten honeycomb.

VIII. Plain faced, Twill faced & wadded bed-ford cords.

IX. Crepe Weaves.

X. Welts and Pique.

3.3 DRAWING AND RENDERING

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	12

RATIONALE :

A designer is always in persuit of new ideas to make his designs newer. The source of ideas may be anything in nature quite in vicinity to him. For this the only thing wanted is an open eye and creating nature. The paper aims to draw analytical attention of the new entraints in the field towards such animate and inanimate objects to pickup some ideas for his creativity.

NATURE STUDY :

Study of natural objects in nature from design point of view in black and white and colour.

STUDY AND SKETCHING OF THE FOLLOWING THEMES :

1. Flower heads.
2. Flowers with loaves and stem.
3. Vegetables with green leaves.
4. Creepers with flowers.
5. Sea shell, Sea animal, sea weeds and fishes.
6. Butterflies.
7. Feathers.
8. Weeds, grass and roots.
9. Animal skin texture.
10. Trees in perspective.
11. Blossoms.
12. Birds and animals.
13. Figure drawing and illustration.

MEDIUM :

Pencil, pen and ink, water colours and poster colour.

3.4 TEXTILE COLOURATION(Lab)

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	10

RATIONALE :

The purpose of colouring textile is to make it attractive to eyes. There are many a techniques & procedures developed for colouring & dyeing the fabrics made of various kinds of fibres. There knowledge is essential for decorating the product to suit the mood and taste of the consumer.

Dyeing of yarn's and cloths covered in the course. Matching of shade cotton, silk, wool, nylon, polyster, viscos etc.

3.5 FABRIC CONSTRUCTION & CLOTH ANALYSIS

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	8

RATIONALE :

The importance of the paper lies in the fact that it introduces the reader with different varieties of the fabric and designs and technical terminology knowledge of these things vary base of textile designer's working.

Analysis of fabrics Covered in the course for their manufacturing particulars. Construction particulars such as identification of warp and weft, direction, face and back of the fabric ends per inch, warp and weft, warp and weft twist direction and ply. Warp crimp percentage and weft crimp percentatge, weave weight per square yeard and meter of common use fabrics.

IV Semester

4.1 TEXTILE PRINTING

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
4	2	-

RATIONAL :

Printing of fabrics for making it attractive is an art and there is no end to development of technologies for the process. The paper is meant to give an insight of the means and methods used in printing.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	4	2
2.	TOPIC-II	6	3
3.	TOPIC-III	4	2
4.	TOPIC-IV	6	3
5.	TOPIC-V	4	2
6.	TOPIC-VI	4	2
7.	TOPIC-VII	6	3
8.	TOPIC-VIII	6	3
9.	TOPIC-IX	6	3
10.	TOPIC-X	6	3
11.	TOPIC-XI	4	2
	T O T A L	56	26

DETAILED CONTENTS

1. Preparation of cloth for printing.

2. Printing methods-Block, Screen, Stencil (or spray) and Transfer. Limitations as well as advantages of different printing methods.

3. Composition of printing paste

A. Classification of thickening agents, preparation of thickening paste.
B. Solvents, Hygroscopic agents, Alkalics, Oxidising and reducing agents and binders.
C. Printing paste composition, its calculation based on coverage.

4. Different styles of Printing, Direct Discharge and resist printing styles; underlying principles and methods. (the

above study will be with respect to cotton, silk, viscos and synthetics fabrics).

5. Brief study of wool printing (use of Chlorination Prior to printing).

6.A. Batik Printing - Ingreidents used and their preparation.

B. Tye and dye style of printing.

7. Processes of developing forms and surfaces, repeat for Block, Screen and Printing in fabrics covering factors of different colours and patterns for above methods.

8. After treatments : such as steaming, curing, ageing, Soaping and Washing.

9. Various defects in Printing and their remedies.

10. Introduction to textile finishing :

A. Function of calendering, milling, Sanforizing, Mercerizing, Parchamentizing, etc and weighting of silk.

B. conversion of the shape of fabrics as per required design like embroidery and raising.

11. Costing of printed fabric.

Corrected and Approved By B.T.E. On Dated 10.06.2015

4.2 FABRIC MANUFACTURING PROCESS-II

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
4	2	-

RATIONALE :

From the title of the paper, it is evident that the knowledge of manufacturing process is matter of imparitive importance to textile designer. So is the importance of the paper.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	8	4
2.	TOPIC-II	8	4
3.	TOPIC-III	10	5
4.	TOPIC-IV	10	5
5.	TOPIC-V	10	5
6.	TOPIC-VI	10	5
	T O T A L	56	28

DETAILED CONTENTS

I. Primary, Secondary and Auxillary motions in weaving process.

II. Passage of warp on loom. Showing all its necessary parts.

III. Classification of various types of weaving machine.Study of handloom, power loom and elementry knowledge of automatic looms.

IV. Brief study of drop box, dobby and jacquard.

V. Introduction to knitied fabrics and various types of knitting machines (Warp knit and Weft knit machines only)

VI. Introduction & Principles of Modern Weaving Machines (Shuttle less 100 ms) i.e Projectile, Airfet and Rapier 100 ms.

4.3 TEXTILE DESIGN-I

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
4	2	-

RATIONAL :

This paper deals with generating self designs in the fabrics. Use of free hand sketching and their enlargement and fabric finishing activities.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	4	2
2.	TOPIC-II	6	2
3.	TOPIC-III	10	5
4.	TOPIC-IV	6	2
5.	TOPIC-V	6	2
6.	TOPIC-VI	8	3
7.	TOPIC-VII	8	3
8.	TOPIC-VIII	8	3
	T O T A L	56	28

DETAILED CONTENTS :

1.A. Study of Indian traditional Designs and colour scheme
B. Study of colour combination and colour theories.

2. Free hand sketching and enlarging of Designs.

3. Composition of Bi-symmetrical and Multi-symmetrical figures suitable for corner and centre placement.

4. Development of stripe and check pattern -

   i. Simple - Regular and Irregular patern.
   ii. Counter change pattern.
   iii. Graduated pattern.
   iv. Modified form.

5. Development of design - suitable for dobby

6. Development of sketches for figured woven fabrics.

7. Development of decorative geometrical designs.

8. Development of all over design of different form - Natural, Abstract, Geometrical and traditional modified.

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4.3TEXTILE PRINTING

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	10

RATIONAL :

Printing of fabrics for making it attractive is an art and there is no end to development of technologies for the process. The paper is meant to give an insight of the means and methods used in printing.

A. Printing of Cotton and rayon fabrics by different methods by Block and Screen printing, Batik printing etc.

B. Testing of fabric on varous agencies like washing fastness, light fastness, rubbing fastness.

4.5 TEXTILE DESIGN-I

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	6

RATIONAL :

This paper deals with generating self designs in the fabrics. Use of free hand sketching and their enlargement and fabric finishing activities.

Preparation of 12 drawing sheets on the basis of theory syllabus to be ornamented by different colours and system.

V Semester

5.1 GARMENT TECHNOLOGY

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
6	2	-

RATIONAL :

This paper mostly deals with decorative designs, development & printing and their transfer to fabrics.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	14	3
2.	TOPIC-II	23	9
3.	TOPIC-III	15	5
4.	TOPIC-IV	20	8
5.	TOPIC-V	12	3
	T O T A L	84	28

DETAILED CONTENTS

1. CLASSIFICATION OF GARMENTS AND MEASUREMENTS :
   Garment classification for men and women on the basis of styles and cultures, Fabric selection for various types of garments, Eight head theory of human anatomy, Measurements and its importance, Method of taking important body measurements for gents and ladies garments.

2. PATTERNING AND GRADING :
   Patterning importance of paper patterns, types of paper patterns, Principles of pattern drafting, Study of pattern making of top and bottom garments, Grading - Study of grading of various components of top and bottom garments (Two examples of men and women both), Marker planning - Computer Aided Pattern Making and Grading system.

3. SPREADING, CUTTING AND SORTING PATTERN ALTERNATION:
   Spreading - Objective of spreading, Methods of spreading, Cutting - Hand shear and different types of cutting machines such as Straight Knife, Bend Knife, Circular Knife, Computer controlled cutting kinfe, etc., Assorting, Stickering, Bundling.

4. SEWING TECHNOLOGY :
   Stitch, Classification of stitch, Seam, Different types of seams, Sewing aids/tools, Parts of sewing machine, Study of various types of sewing machines such as Lock Stitch, Chain Stitch, Over lock, Flat Lock, Button Holing, Buttoning and computer Controlled Sewing Machines. Trimmings, Selection of Needle and Sewing thread. Study construction of top and Bottom Garments, Individual and Group Production System.
5. FUSING, PRESSING AND PACKING :
   Basic of fusing, Pressing and Packaging.

5.2 TEXTILE DESIGN - II

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
6	2	-

RATIONAL :

This paper mostly deals with decorative designs, development & printing and their transfer to fabrics.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	9	3
2.	TOPIC-II	12	4
3.	TOPIC-III	12	4
4.	TOPIC-IV	12	4
5.	TOPIC-V	12	4
6.	TOPIC-VI	12	4
7.	TOPIC-VII	9	3
8.	TOPIC-VIII	6	2
	T O T A L	84	28

DETAILED CONTENTS

1. Development of pattern by colour and weave effect.

2. Construction of motif suitable for printing and weaving.

3. Preparation of motif, figures and their arrangement. Graph designs suitable for Dobbies and jacquards.

4. Elements and principles of preparing decorative designs for woven and printed fabrics for various uses. Basis of textile design like diamond ogee, curved line half drop, reverse etc. Ways of modifying colours in textiles.

5. Transfering of design of shirting sarees, brocades etc to the point paper. Ways of arrangement of figures or motifs.

6. Transfering of design on graphic (Point), Paper, edging and insertion of weaves in figured protion and on ground.

7. Brief idea of special and complex fabries e.g. Double cloth, Brocades, Tapesteries adn Damarks.

8. Brief idea of Turkish Towelling fabric and their ornamentation.

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5.3 PROFESSIONAL STUDIES

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
6	2	-

RATIONAL :

This paper aims to give a brief idea of fundamentals related to managerial & entrepreneural activities and responsiblities in an industry. Students choosing their carrier as industrial worker need it to understand the industrial enviornment.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	12	4
2.	TOPIC-II	12	4
3.	TOPIC-III	12	4
4.	TOPIC-IV	12	4
5.	TOPIC-V	12	4
6.	TOPIC-VI	12	4
7.	TOPIC-VII	12	4
	T O T A L	84	28

DETAILED CONTENTS

1. Understanding of designers environment. A brief idea about Textile Industry in India and its organisation. Problems faced by Designers.Sociological-psychological. Financial steps necessary to overcome them.
2. Nature of management, functions of management. The science and Art of management. (Brief ideas).
3. Principles of Marketing management. Nature and importance, Meaning of Marketing. Marketing Techniques and skills-Market Research Sales Promotion, Product Planning pricing, distribution factors governing adoption of such techniques.
4. Establish liaisoning with clients. Need for liasioning with clients. Types of clients, how to deal with them. Social responsibilities of business (From Designers point of view). Need for human relations.
5. Costing :
   Elements of costs : Materials, labour expense, prime cost and overheads.
   Fixed and variable cost.
   Type of cost : predetermined, standard and marginal.
6. Requirements and organisation of a Design studio.

7. Entreprenurship : Sources of finance. For setting up small scale units. Agencies to be contacted for setting up small scale units,preparation of a project report for setting up a design studio.

Corrected and Approved By B.T.E. On Dated 10.06.2015

5.4GARMENT TECHNOLOGY (PRACTICALS)

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	12

1. To study and sketch various parts of pock stitch sewing m/c.
2. Study about paper pattern drafting for at least two sets of approval as stated below.

   Designing and construction of at least two sets of apparel (with tops and bottoms) for men and women both. Preferably one set should be in traditional Indian style and another in Western style for both men and women.

5.5 TEXTILE DESIGN - II

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
-	-	10

RATIONAL :

This paper mostly deals with decorative designs, development & printing and their transfer to fabrics.

Transfer of paper design on print paper and to produce a cloth on the loom using the same. Market surveying and production of fabrics using original designs. Preparation of sheet on the basis of theory Syllabus.

VI Semester

6.1 ENVIRONMENTAL EDUCATION & DISASTER MANAGEMENT

L	T	P
4	-	-

RATIONALE:

A diplima student must have the knowledge of different types of pollution caused due to industrialisation and construction activities, so as he may help in balancing of eco-system and control pollution by providing controlling measures. They should be also aware of the environmental laws for effectively controlling the pollution of environment. The topics are to be taught in light of legislation Para-3.

TOPIC WISE DISTRIBUTION OF PERIODS:

SL. NO.	TOPIC	L	T	P
1.	Introduction	6		
2.	Pollution	4		
2.1	Water Pollution	8		
2.2	Air Pollution	8		
2.3	Noise Pollution	4		
2.4	Radio Active Pollution	6		
2.5	Solid Waste Management	6		
3.	Legislations	4		
4.	Environmental Impact Assessment	4		
5.	Disaster Management	6		
	TOTAL	56	-	-

DETAILED CONTENTS

1. INTRODUCTION :

- Basics of ecology, Ecosystem, Biodiversity Human activities and its effect on ecology and eco system, different development i.e. irrigration, urbanization, road development and other engineering activities and their effects on ecology and eco system, Mining and deforestation and their effects.

- Lowering of water level , Urbanization.

- Biodegradation and Biodegradibility, composting, bio remediation, Microbes .Use of biopesticidies and biofungicides.

- Global warning concerns, Ozone layer depletion, Green house effect, Acid rain,etc.

2. POLLUTION :

Sources of pollution, natural and man made, their effects on living environments and related legislation.

2.1 WATER POLLUTION :

- Factors contributing water pollution and their effect.

- Domestic waste water and industrial waste water. Heavy metals, microbes and leaching metal.

- Physical, Chemical and Biological Characteristics of waste water.

- Indian Standards for qulity of drinking water.

- Indian Standards for quality of treated waste water.

- Treatment methods of effluent (domestic waste water and industrial/ mining waste water), its reuse/safe disposal.

2.2 AIR POLLUTION :

Definition of Air pollution, types of air pollutants i.e. SPM, NOX, SOX, GO, CO2, NH3, F, CL, causes and its effects on the environment.

- Monitoring and control of air pollutants, Control measures techniques. Introductory Idea of control equipment in industries i.e.

A. Settling chambers
B. Cyclones
C. Scrubbers (Dry and Wet)
D. Multi Clones
E. Electro Static Precipitations
F. Bog Fillers.

- Ambient air qulaity measurement and their standards.

- Process and domestic emission control

- Vehicular Pollution and Its control with special emphasis of Euro-I, Euro-II, Euro-III and Euro IV.

2.3 NOISE POLLUTION :

Sources of noise pollution, its effect and control.

2.4 RADISACTIVE POLLUTION :

Sources and its effect on human, animal, plant and material, means to control and preventive measures.

2.5 SOLID WASTE MANAGEMENT :

Municipal solid waste, Biomedical waste, Industrial and Hazardous waste, Plastic waste and its management.

3. LEGISLATION :

Preliminary knowledge of the following Acts and rules made thereunder-

- The Water (Prevention and Control of Pollution) Act - 1974.

- The Air (Prevention and Control of Pollution) Act - 1981.

- The Environmental Protection (Prevention and Control of Pollution) Act -1986. Rules notified under EP Act - 1986

Viz.

The Manufacture, Storage and Import of Hazardous Chemical (Amendment) Rules, 2000

The Hazardous Wastes (Management and Handling) Amendment Rules, 2003.

Bio-Medical Waste (Management and Handling) (Amendment) Rules, 2003.

The Noise Pollution (Regulation and Control) (Amendment) Rules, 2002.

Municipal Solid Wastes (Management and Handling) Rules, 2000.

The Recycled Plastics Manufacture and Usage (Amendment) rules, 2003.

4. ENVIRONMENTAL IMPACT ASSESSMENT (EIA) :

- Basic concepts, objective and methodology of EIA.

- Objectives and requirement of Environmental Management System (ISO-14000) (An Introduction).

5. DISASTER MANAGEMENT :

Definition of disaster - Natural and Manmade, Type of disaster management, How disaster forms, Destructive power, Causes and Hazards, Case study of Tsunami Disaster, National policy- Its objective and main features, National Environment Policy, Need for central intervention, State Disaster Authority- Duties and powers, Case studies of various Disaster in the country, Meaning and benifit of vulnerability reduction, Factor promoting vulnerability reduction and mitigation, Emergency support function plan.

Main feature and function of National Disaster Management Frame Work, Disaster mitigation and prevention, Legal Policy Frame Work, Early warning system, Human Resource Development and Function, Information dissemination and communication.

6.2 FASHION STUDIES

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
4	2	-

RATIONAL :

This paper aims to give a brief idea of fundamentals related to managerial & entrepreneural activities and responsiblities in an industry. Students choosing their carrier as industrial worker need it to understand the industrial enviornment.

TOPICWISE DISTRIBUTION OF PERIODS

Sl.No.	TOPIC	LECTURE	TUTORIAL
1.	TOPIC-I	13	6
2.	TOPIC-II	15	8
3.	TOPIC-III	15	8
4.	TOPIC-IV	13	6
	T O T A L	56	28

DETAILED CONTENTS

1. INTRODUCTION TO FASHION AND ITS TERMINOLOGY :

   Fashion, Fashion design and fashion technology Brief introduction fashion terminology, Fashion industry, language guide.

2. DISTINGUISHED FASHION DESIGNERS :

   Introduction to fashion designers of National and Internationl fame and their views. Future fore-casting of Fashion trends - Analytical approach with respect to design and involvement of technology. Fashion designers and technologies of tomorrow. Know the famous labels and International producers of today.

3. FASHION ILLUSTRATION :

   Defination, Importance and Role of fashion illustration in costume design in todays competitive fashion world. Method and their applicaion.

4. HISTORY OF FASHION :

   Fashion in India - Geographical and environmental aspects . Fashion in abroad and present trends of fashion in all walks of life, Types of costumes and non-wear fabric.

6.3 TEXTILE TESTING

(Common To Textile Chemistry, Textile Technology and Textile Design (Printing))

L	T	P
6	2	6

Rationale

As the name implies this paper aims to develop in the incumbent the capability of testing the products and its components for desired results. Without it a product can never be claimed for any standard.

Topic Wise Distribution of Periods

Sl.No.	Topics	Coverage Time L	T	P
1.	Sampling and quality control	12	4	-
2.	Importance of Textile Testing	12	4	-
3.	Fibre Dimensions	12	4	-
4.	Yarn Dimensions	12	4	-
5.	Fabric Dimensions	15	5	-
6	Tensile Testing of Textiles	11	4	-
7.	Evenness Testing:	10	3	-
		84	28	84

DETAILED CONTENTS

1 Sampling and Quality Control : Definition of sample, sample size, sampling Technique, Introduction to quality control, Accuracy of measurement, presentation and analysis of data, SQC charts analysis of defects, difference between average and correlation. Standard deviation and coefficient of variation.

2. IMPORTANCE OF TEXTILE TESTING:

Introduction to textile testing, properties of fibres, yarns and fabrics and their relevance in assessing the performance, of textiles during and after manufacture.

3. FIBRE DIMENSIONS:

i. Fibre Length Measurement - Use of Baer sorter, Fibrograph, Uster-stapler, their principles of operation.
ii. Fibre Fineness Measurement - By cutting and weighing method, Shefield micronair, Aerlometer, Maturity of cotton by caustic soda method and by airflow methods.
iii. Role of Humidity - Absolute Humidity, Relative Humidity, moisture Regain, Moisture content.

iv. Introduction to H.V.I. (High Volume Instruments)

4. YARN DIMENSIONS:

i. Measurement of yarn twist by Rock bank twist tester, continuous twist tester and by twist and untwist

methods.

ii. Measurement of yarn diameter by microscope.

5. FABRIC DIMENSIONS:

i. Measurement of fabric thickness. Measurement of crimp by crimp tester.

ii. Air permeability of fabrics, its measurement by air permeability tester.

iii. Crease recovery of fabrics, factors effecting crease recovery, measurements of crease recovery by crease recovery tester.

iv. Water repellancy tests.

v. Abrasion resistance test on fabric by Mortindale, Abrasion Tester.

6. TENSILE TESTING OF TEXTILES:

i. Fibre strength testing by Pressely strength tester, stelometer.

ii. Yarn strength testing, types of testing machines, single yarn strength testing and Lea strength testing.

iii. Fabric strength testing by cut strip, grab strip and revealed strip methods.

iv. Fabric tear testing by tongue tear, trapezoid tear test.

v. Bursting strength testing by hydraulic strength tester.

7. EVENNESS TESTING

i. Nature of irregularities - short term, medium term and long term variations, periodic and non periodic irregularities.

ii. Eveness testing by uster evenness tester and fielden and walker eveness tester.

iii. Classimate faults and classifaults.

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TEXTILE TESTING
LIST OF EXPERIMENT

1. To find the count of yarn
   (i) by physical balance
   (ii) by yarn quadrants balance.
   (iii)by Bessley yarn balance.
   and to calculate Coefficient of variation (CV).

2. To calculate yearn count by wrap reel and to calculate C.V..

3. Determine the twist of yarn per inch/per meter in double yarn and its individual components by continuous twist tester and twist and untwist tester.

4. Findout the hank of sliver and roving with the aid of wrap block machine.

5. Find the staple length of fibre by Bare Sorter.

6. Measure fibre fineness by flowing air through a sample of fibre by micronaire.

7. Find out fibre length by analytical digital fibrograph.

8. Find out lea strength of cotton yarn by lea strength tester (Power driven) and CSP.

9. Find the breaking strength of cotton yarn by Ballistic strength testing machine.

10. To find the breaking strength and elongation of single thread of cotton by single thread testing machine (Hand or pwoer driven).

11. Examine the bursting stength of a fabric by bursting strength tester.

12. Find out the relative abrasion properties of fabrics by Martindale abrasion tester.

13. Find the breaking strength of different textile fabrics by means of cloth strength tester (power driven).

14. Measure crimp by shirley crimp meter.

15. Find out air permeability of fabric by air permeability tester.

16. Measure crease recovery of fabric by crease recovery tester.

17. Find out fibre strength by stelometer.

18. Test of pilling of fabrics by computerzed pilling texter.

19. Estimation of final pH value of finished fabric.

20. Test evenness of the yarn by evenness tester,

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6.4 APPLICATION OF CAD (PRACTICALS)

(Common to Three year Diploma course in Textile Design(Printing))

L	T	P
2	-	10

1. INTRODUCTION TO MS OFFICE :

   MS WORD, MS POWERPOINT, MS PROJECT

2. COMPUTER AIDED WOVEN DESIGN :

   Introduction to software for textile woven design with windows platform, Application of software for Dobby/Jacquard Design printing.

3. COMPUTER IN GARMENT INDUSTRY:

   Application of Software for pattern making, grading and sorting.

LIST OF PRACTICALS

1. Presentation technique by using MS Power Point.
2. Get into the window. Draw a picture in accessories. Paint and comy that picture to another place through window explorer.
3. Scanning of object/paper/cloth
4. Editing of scanned/painted molifs
5. Creation of weaves/editing (Normal & Compound weave)
6. Simulate paper design according to various fabrics.
7. Texture maping/drapeing (Procedure)

6.5 PROJECT WORK

(Common to Three year Diploma course in Textile Design. Spl In Printing)

L	T	P
-	-	8

RATIONAL :

The purpose of introducing the projects are to enable student to apply the knowledge, skills and attitudes acquired during the entire course of the solution real life problems.

1. PURPOSE AND ASSESSMENT :

Each student will be assigned a specific problem solving right from conception of design up to the execution of design. The assessment of project work shall be based on.

1. Definition of the problem.
2. Explain the approach towards solution of the problem .
3. Developing and sketches (Developing alternatives).
4. Colour schemes.
5. Final Design.
6. Fabric selection.
7. Quality of print.
8. Procedure adopted by the student in arriving at final solution.
9. Originality of the design concepts.
10. Initiative and participation of the student.

A viva voce examination shall be conducted at the end of the project for assessing the work of the student. The examination committee for this purpose shall consist of a professional designer, teacher who has guided the project. The project work should be properly displayed by the student.

2. SUGGESTED PROBLEMS FOR PROJECT WORK :

The theme will be discussed in the theory period. For each submission the students are required to submit :
(a) 20 Ideas (croquis) (b) Final design with repeat.
(c) 5 colourways (d) Design printed on fabric.

All work will have to be executed in the theory class, studio and laboratory under the supervision of a lecturer, Studio Assistant or Laboratory Assistant.

No design without the approval of the teacher concerned will be accepted for the final submission.

1.	Theme	:	Floral pattern in stylised and naturalistic form.
	For	:	Saree for summer wear.
	Fabric	:	Shaffon
	Method	:	Hand painted
	Dye	:	Acrymen
	Placement	:	Of your choice
	Colour scheme	:	No limit
	Practical Submission	:	On 5.5 meter organdie fabric.

	Special feature	:	placement and colour scheme, as in this method you can have light and dark shades, the play of the fine artwork with brush. Each report to have the characteristic of the flow of the hand as you are not allowed to trace the design of the fabric. Each report to be in origional form.
2.	Theme	:	Indian mythology depicting a Mahabharat or Ramayana scene. The design you could use the salient feature of mytholoy e.g. the chariot wheels. The armour used for warriors or the decorative form of architecture arches etc.
	For	:	bed cover / floor covering.
	Method		Screen printing lacquer method.
	Fabric	:	Of your choice.
	Placement		Of your choice.
	Dyes	:	Acramyn.
	Repeat	:	Based on the theme.
	Colour scheme	:	Minimum five colours.
	Practical Submission	:	Double Bed Covers/Floor covering.
	Special feature	:	The choice of the fabric, and to create a harmony in the theme for all the objects as they will be placed in one room the ingenuity lies in your design to use minimum screens from small layout to large layout.
3.	Theme	:	Batik and block printing technique in geometrical or abstract design.
	For	:	Set of dinning room consisting of 1. Table cloth and napkins or table mats and napkins. 2. Oil painting in the theme of still life of ceramics and fruits.
	Fabric	:	Khadi/cotton
	Placement	:	Your choice based on the need.
	Method	:	The above three techniques.
	Dyes	:	Pigment
	Repeat	:	Based on the placement and theme.
	Colour scheme	:	Minimum three colours including the back ground.
	Practical submission	:	Standard sizes of the requirement.
	Special feature	:	The application of the technique its limitations and its scops for effects.

4.	Theme	:	Paisleymotifs with decorative form of floral pattern increased with black out line work.
	For	:	Silk screen.
	Method	:	Block printing on dyed fabric for discharge colourings.
	Placement	:	Border on four sides with centre motif.
	Dyes	:	Direct dyes for dyeing the cloth and discharge dyes for printing the block designs. Size of the fabric for practical submission 36"X 36".
	Repeat	:	Based on the placement and formation of the blocks implied.
	Colour scheme	:	Black outline. Coloured background and two colours of the pattern.
	Special feature	:	The discharge technique, as this technique replaces the original colours and white on coloured back-ground, the intermingling of colour effect.
5.	Theme	:	Sea Animals (Fishes),sea weeds and sea shells.
	For	:	Bath room set. Bath towel, bath mat, Hand towel, guest towel. Bath room curtains.
	Fabric	:	Ready made set or towelling material for the towel set and cambric for the curtain.
	Method	:	Lacquer screen printing.
	Placement	:	Your choice.
	Dyes	:	Acramyn
	Repeat	:	Of your choice.
	Colour scheme	:	On white back ground three stages one colour shades.
	Practical submission	:	Standard sizes towels.
	Special feature	:	The placement of designs and the colour effect.
6.	Theme	:	Tantric Art.
	For	:	Sitting room set consisting of carpet partition screen or room divider.
	Method	:	Screen printing, block printing and any applied effect.
	Placement	:	Your choice.
	Dyes	:	Acramyn.
	Repeat	:	Refer to special feature.
	Colour scheme	:	Minimum 4 colours including the back ground. No white allowed in the design.
	Special feature	:	The curtain placement to the usual designs. Unholstry fabric design should have all over placement and more of textural quality the screen should have all the applied art techneques (printing and embroidary etc.)

7. Theme : Floral patterm, flower heads buds, leaves and stem in intricate fine line work.
For : Cambric.
Method : Photographic screen printing.
Dyes : Fancy dyes.
Colour scheme : Two colour only.
Placement : All cover.
Repeat : 30 cm X 90 cm
Submission of the practical : On 3(three) meter piece.
Special feature : Photographic screen printing which has a good effect of the line work

8. Theme : Opart.
For : Sari.
Fabric : Nylon or organdie.
Method : Nozzle printing.
Dyes : Enamel paint.
Colour scheme : One colour only.
Placement : All over.
Repeat : Your choice.
Submission of practical A complete sari.
Special feature : The free hand moving.

9. Theme : Floral pattern
For : Dress.
Fabric : Cotton.
Method : Spray painting with the stencil technique.
Colour scheme : One colour only.
Repeat : Your choice.
Dyes : Mordant dyes.
Placement : Half drop.
Submission : 3 meter fabric.
Special feature : Subduedeffect of the stencil and spraying effect of the dyes.

Design for Roller printing and photographic screens on paper only.

A. Theme : Stylised floral pattern.
For : Sarees (Synthetic)
Fabric : Synthetic material.
Method : Photographic screen printing.
Placement : All over.
Dyes : Pigments.
Repeat : 40 cm. X 120 cm.
Colour Scheme : four colours on white back ground.

B. Theme : Trees in prespective.
For : Curtains.
Fabric : Cotton stain.
Method : Roller printing.
Placement : In horizontal stripes.
Dyes : Acramyn.
Colour scheme : Trees colours during Autumn 3-4
Repeat : 24" X 48"

Transfer of Paper Design on cloth on the loom.

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IX. STAFF STRUCTURE

INTAKE 60
Pattern Annual

S.No.	Name of Post	No.
1.	Principal	1
2.	HOD	1
3.	Lecturer(*)	7
4.	Lecturer in Communication Tech.	1 (Part-time)
5.	Instructor	2
6.	Computer Programmer	1
7.	Steno Typist	1
8.	Accountant/Cashier	1
9.	Student/Library Clerk	1
10.	Store Keeper	1
11.	Class IV	6
12.	Sweeper	Part time as per requirement
13.	Chaukidar & Mali	As per need with justification

NOTE :

1. The number of staff required for individual institutation shall be worked out in accordance with the norms laid down in G.O.No. 2281/Pra. Shi. -3-1989-60 (B)/85 dated June 27, 1989.

2. Services of the staff of other disciplines of the Institute may be utilised.

3. The post of "Computer Programmer" is not needed in the institutions where diploma in "Electronics Engineering" is running.

4. QUALIFICATIONS OF STAFF : As per Service Rules.

*: Lecturer - Four - Degree In Textile Technology

Lecturer - Two - Degree In Textile Chemistry

Lecturer - One - First Class B.F.A. (Textile Designing)

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X. SPACE REQUIREMENTS

[A] ADMINISTRATIVE BLOCK

S.NO.	Details of Space	Floor Area Sq.m.	Remark
1.	Principal's Room	30	
2.	Confidential Room	10	
3.	Steno's Room	6	
4. (a)	Office Including Drawing Office	80	
(b)	Record Room	20	
5.	Staff Room	20	
	(a) Head 1	15	
	(b) Lecturer 10 Sq.m./Lect. for 3 Lecturers	30	
6.	Library and Reading room	150	
7.	Store	100	
8.	Students Common room	80	
9.	Model Room	90	

[B] Academic Block

S.NO.	Details of Space	No.	@ Sq.m.	Floor Area Sq.m.
1.	Class Room	2	60	120
2.	Drawing Hall	1	90	90
3.	Design Theater	1	100	100
4.	Textile Testing Lab.	1	40	40
5.	Textile Designing (Fabric Design & Printing Design.)	1	150	150
6.	Computer Lab. (Air Cond. Glass Partition and Special type pvc flooring and false ceiling).	1	60	60

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[C] Student's Aminities

1.	Hostel	40 %	of Strength of St.
2.	Cycle Stand	50 %	of Strength of St.
3.	Canteen and Tuck shop	50	
4.	N.C.C. Room	70	
5.	Dispensary	40	
6.	Guest Room (Attached Bath) including kitchen & store	45	

[E] STAFF RESIDENCES

1.	Principal	1	100	100
2.	Head of Department	1	100	100
3.	Lecturer	3	80	240
4.	Non-teaching & Supporting Staff	8	60	480
5.	Class IV	6	30	180

Priorty to be given in following order.

(1)
a. Administrative Building
b. Labs.
c. Over head Tank
d. Boundary Wall
e. Principal Residence
f. Fourth Class Quarters (2/3)

(2)
a. Hostel.
b. Students Aminities

3.
Residences of employee.

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XI. LIST OF EQUIPMENT FOR DIPLOMA IN

TEXTILE DESIGN

1. Only those of the equipments given below which are essentially required for performing the practicals mentioned in the curriculum and are not avaliable in the institute are to be procured by the institutions.

2. "Machines/Equipments/Instruments of the old BTE list which are not included below are to be retained in the Lab. for demostration purpose but not to be demanded a fresh for purchase."

S.NO.	NAME OF EQUIPMENT	QTY. REQUIRED	APPROX.COST (Rs.) RATE
1.	Handloom 36" Reed space with two boxes on either side with accessories Plain loom 36" reed space with plain tappet. Complete wooden frame with 8 heald frame and reed. Weaves beam Two boxex at either side 100 empty pirns and 2 shuttles, Reed Count 20,24,36,40 with all accessories Or Latest Configuration	1 No.	50,000=00
2.	Handloom 36" Reed space with Dobby with Accessories Plain loom 36" reed space with dobby of 16 jacks,Complete wooden frame with 4 heald frame and reed. Weaves beam 2 Shuttle and 100 empty bobbin. Dobby with all accessoires-16 hooks,Reed Count 20,24,36,40 with all accessories Or Latest Configuration	1 No.	65,000=00
3.	Handloom with Jacquard (200 Hooks)	1 No.	60,000=00
4.	Pirn winding machines with electric Motor and empty pirns & bobbins	1 No.	60,000=00
5	Hand Driven Charkha	1 No.	5,000=00
6.	Sectional warping (ordinary) Machine with creel	1 No.	45,000=00
7.	Cone Winding Machine	1 No.	50,000=00
8.	Piano Card cutting Machine for Card Punching	1 No.	30,000=00
9.	Power loom 36" reed space with 8 jacks dobby	1 No.	75,000=00
10.	Model of mini carding plant 250 mm working width 250 mm cylinder, doffer, feed roller,opening roller, striping roller, crush roller stainless undercasing, takeup drum suitable for feeding, miniature draw	1 No.	6,50,000=00

	frame with gear and pulleys to drive feed roller, cyliner and doffer and other accessories, Mechanical type possibility of processing 50 gms. per batch 10 "width, metallic wire clothing with complete accessories, Microprocessor based indidual drive or Latest Configuration		
11.	Model of mini spinning plant Draw Frame : Having 3 over 3 drafting arrangement to process the silver from miniature carding machine with individual AC variable speed motors with change grars to vary the speeds of front roller, middle and back roller for different Total Draft and break Draft inclusive of motor, rpm indicators control system and other accessories Mechanical type single delivery, 3 over 3 drafting arrangement, range 5-15 draft Microprocessor based or Latest Configuration High Speed Simplex (Lab Model) Latest Lab Model Range :6-12 Spindle Suitable for 110 mm dia package Draft Range=6-18, 3 roller apron drating arragement SKF PK 1500, individual AC variable speed motors with control system with automatic stop motion, Inching mechanism, 100 empty PP bobbins with complete accessories and pinion according to draft change with all complete accrssories or Latest Configuration Ring Spinning Frame : No. of Spindle 6-12, mechanical speed 25000 rpm, ring dia - 38 mm, 70mm gauge, 180 mm lift, SKF PK 2025/2035, 3 over 3 drafting arrangement with short cradles, for gearing arrangement to change the total draft, Break draft and TPI with change gears and other accessories. Mechanical draft 10-50 Microprocessor based or Latest Configuration	1 No.	5,00,000=00
12.	Standard Vertical Lea Tester (Yarn strength tester)	1 No.	40,000=00
13.	Projection Microscope	4 Nos.	10,000=00
14.	Physical Balance (Electronic)	4 Nos.	15,000=00
15.	Reeling Machine	1 No.	30,000=00
16.	Speedy Moisture testing Machine	1 No.	10,000=00
17.	Pick Counting Glass	4 Nos.	75=00
18.	Knowels Yarn Balance	4 Nos.	12,000=00

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19.	Beesely Yarn balance	4 Nos.		3,000=00
20.	Dry & wet bulb Hydrometer	1 No.		1,000=00
21.	Cloth Strength testing Machine (Tensile Strength)	1 No.		50,000=00
22.	Air permeability tester	1 No.		50,000=00
23.	Stiff tester	1 No.		50,000=00
24.	Yarn Assonting Balance	1 No.		50,000=00
25.	Black Board (Graph)	1 No.		500=00
26.	WATER BATH : (Electrically heated/Stoves Vessel)	15 Nos.		250=00
27.	Dye post porceline ; Stainless steel	60 Nos.		50=00
28.	Glass rods	L.S.		100=00
per Kg.				
29.	MEASURING CYLINDER			
	(a) 5 C.C.	30 Nos.		N.A.
	(b) 100 C.C.	30 Nos.		25=00
	(c) 500 C.C.	5 Nos.		100=00
30.	Winchester Bottle (5 litres)	5 Nos.		150=00
31.	THERMOMETERS			
	(a) 0-100 C	2 Nos.		150=00
	(b) 100-200 C	2 Nos.		200=00
32.	Weighing Balance (physical)	1 No.		1000=00
33.	Open Balance	1 No.		300=00
34.	Buckets	5 Nos.		70=00
35.	Mugs	10 No.		8=00
36.	Cement Plateform with three sinks fitted in centre 20'X 5'X 2'	1 No.		5,000=00
37.	Printing Table (5' X 20')	1 No.		5,000=00
38.	Exposing Table	1 No.		10,000=00
39.	Screens of Various sizes	10 Sets	single	200=00
			Double	300=00
			Triple	400=00
40.	Electrically heated steam ager	1 No.		50,000=00
41.	Transfer Printing machine flat bat	1 No.		2,50,000=00
42.	Sample cutting machine	1 No.		10,000=00
43.	No. of blocks of various Design	10 Sets	Single	75=00
			Double	120=00
			Triple	175=00

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			Four colour 225=00
44.	Bhigona Large Size (Stainless Steel)	2 No.	250=00
45.	Dyes and Chemicals	L.S.	25,000=00
46.	Electric Iron Large (100 watt)	2 Nos.	250=00
47.	MODELS OF :		
	(a) Jigger	1 No.	75,000=00
	(b) Pudding Mangle	1 No.	75,000=00
	(c) Winch	1 No.	10,000=00
	(d) Stenter	1 No.	25,000=00
	(e) Model of Roller Printing M/c (Four Colour)	1 No.	100000=00
48.	Miscellaneous item required for craft practice and Drawing and Rendering Lab	L.S.	50,000=00
	DESIGN STUDIO		
49.	Multi Media Projector	1 No.	100000=00
50.	Photocopier with enlargement and reduction facility	1 No.	1,25,000=00
51.	Multi User Textile Design Software with CAD & CAM(Dobby, Jacquard & Printing)	1 No.	500000=00
52.	Multi User Software for Garment Design Degitizer & Plotter	1 No.	1000000=00
53.	Colour Printer with Scanner	1 No.	30000=00
54.	Computer with Latest Configuration (i5)	30 No.	2000000=00

55	Baer Sorter (For Fibre Length) Acrylic Transparent Sheet - 6"X8"X2 pices, 3"X8"X2 pcs Fibre Mounting Templest 6"X8"X2 pices, 3"X8"X2 pcs with tweezers, velvet pad, scales, planchass with all complete accessories or Latest Configuration	2	20000	40000
56.	Quadrant Balance	2	4000	8000
57.	R. B. Twist Tester	2	25000	50000
58.	One Inch Twist Tester	2	8000	16000
59.	Tearing Strength Tester	1	20000	20000
60.	Bursting Strength Tester	1	35000	35000
61.	Abrasion Resistance Tester (Martindle Type)	1	50000	50000
62.	Laundrometer (For washing fastness testing)	1	50000	50000
63.	Crock Meter Grey Scale	1	10000	10000
64.	Conditioning Oven 220 V With capability of maintaining temperature up to 100oC and facility for smoth variation of temperature inside 27 liter.	1	98500	98500
65.	Stelometer (For bundle Strength)	2	70000	140000
66.	Water Repellancy Tester	1	80000	80000
67.	Pilling Tester	1	30000	30000
68.	Crimp Regidity Tester Minor Load - 2 Gr. to 10Gr. in a step of one grams Major Load - 100 Gr. to 500 Gr.	2	20000	40000

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	in step of 50 Grams Digital display 220 V, with all complete accessories or Latest Configuration			
69.	Classimate (Yarn faults finding equipments)	1		900000
70.	Round Sample of GSM with Electronic balance	1	35000	35000
71.	Drapemeter	2	25000	50000
72.	Fabric Thickness Tester	3	8000	24000
73.	A.S.T.M. Cards For Threads/Inch	1	15000	15000
74	Twist & Untwist Tester	2	35000	70000
75.	Xenon Arc Tester For Colour Fastness of Textile against sun light	1	1500000	1500000
76	Model Rapier Loom 20" Reed Space with winding & warping unit Complete Set	1	3800000	3800000
77.	Small Diameter Circular Kintting 3.5" dia & 36 guage	1	160000	160000
78.	Flat Knitting Machine Computerized & Mechanical Both	3	250000	750000
79.	Linking Machine (circular) 18 guage	1	225000	225000

NOTE:

1. Item No. 55 to 73 are common with Textile Technology course.

2. Indian make working laboratory models for costly equipment be purchased if available.

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INTRODUCTION TO COMPUTER (Common to all Trades)

COMPUTER CENTRE

S.No.	DESCRIPTION	QTY.	APPROX. COST (in Rs.)
1.	Core-2 Quad Processor, 4GB RAM 1 GB SATA HDD, 19" TFT Monitor/ Server of Latest Specification OS-Windows 2007/2008/Latest Version	02 Server	1,20,000=00
2.	General Desktop Computer-Intel i5 60 node or Higher(with latest Specification Pre loaded latest Anti Virus with Life time Subscription, Licence Media and Manual with UPS 660 VA with latest window OS Including licence OR Computer of latest Specification With latest window os including licence		36,00,000=00
3.	Software :((Latest Version)		
	i. MS OFFICE 2010/Latest Version	LS	LS
	ii COMPILER 'C', C++, JAVA-7	LS	LS
4.	Hardware		4,50,000.00 LS
	i. Switch-32 Port	02	
	ii. Router	02	
	iii. Hub	04(8 Port)	
	iv. Ext. Modem	02	
	v. Wireless N/W Adaptor	02	
	vi. Series Access Point	02	
	vii.LAN Cable Meter	05	
	viii. LAN Cable Analyzer	05	
	ix. Crimping Tool and all other accessories related to Networking	15	
5.	Scanner- Flat Bed A4/Auto Lighter (Bit depth 48)	02	20,000
6.	132 Column 600 CPS or faster 9 Pin dot matrix printer with 500 million character head life	02	50,000
7.	Laser Jet-A4 All In one 20 page per min (2 Each)	04	50,000
8.	Desk Jet-A4 Photo Smart (2 Each)	04	40,000
9.	5 KVA on line UPS with minimum 30 minute battery backup along with sealed maintenance free batteries. Provision for connecting external batteries with network connectivity.(For 2 Labs)	04	8,00000

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10.	Split Air Conditioner 1.5 tones capacity with ISI mark along with electronic voltage stabilizer with over voltage and time delay circuit	08	35,0000
11.	Room preparation and furniture	LS	
12.	19" rack, 24-port switch. connector RJ-45 Cat-6 cabling for network	LS	10,0000
13.	2 KVA Inverter Cum UPS	02	6,0000
14.	Fire Extinguisher (2 Kg.)	04	15000
15.	Fire Extinguisher (5 Kg.)	04	25000
16.	Vacuum Cleaner	02	25000
17.	LCD Projector 3000 Lumen with all Accessories	02	350000
18.	Pen Drive 16 GB	10	10000
19.	DVD Writer External	02	10000
20.	HDD External 500 GB	02	15000
21.	PAD (Latest Configuration)	02	15000
22.	Broadband For Internet(Speed Min. 8mbps)	04	LS
23.	USB Modem	02	8000
24.	Generator 15 KVA Water Coolant	01	450000

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7. LEARNING RESOURCE MATERIALS

1.	LCD Projector with Screen	1	--	20000
2.	Handicam	1	--	30000
3.	Cutting, Binding & Stitching equipment.	1	--	30000
4.	Desk Top Computer with Internet Core i5/i7- 760, Processor, Genuine Windiw 7, Professional 18 inch HD, Flat Panel Monitor Optical Mouse, Key Board & all related media or latest version	1	--	40000
5.	Home Theater Support Disc type CD. CDR/CDRW DVDR/DVDRW, VCD Supported with USB Port Support-DIVX/JPEG/MP3	1	--	25000
6.	Commerical P A System 16 W-220W output, AC & 24V DC Operated, 5 Mic. & 2 Auxilary input, Speaker output 4 Ohm, 8 Ohm, 17 V & 100 V	1	--	20000
7.	Interactive Board	1	--	50000

ote :

1. This center will be only one at the institute level irrespective of all branches.

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XIII. ANNEXURE - I

COMMUNITY DEVELOPMENT WORK

For Community Development work two 15 days camps shall be organised during the session in the identified villages. The students shall stay in the camps and under the supervision of the concerned faculty members shall under take/execute the assigned works in the following fields.

1. To launch and sustain functional literacy programmes.

2. To train the rural youth in different trades/skills.

3. Training by innovating and improving the efficiency of house hold gadgets.

4. To control and reduce pollution effecting the social fabric of rural life i.e.

   - Construction of Soak Pits and Sanitary Latrines, Tree Plantation, Social Forestry, Installation of Smokeless Chulhas.

5. To disseminate information on sources of non conventional energy. Installation and maintenance of Solar Street Lights, Solar Photovaltaic Pumps, Wind Mills, Bio Gas Plants etc shall be undertaken.

6. Transfer of appropriate Technology/Demonstration of cheap houses by use of locally available material, treatment of mud walls innovation of mud floor, treatment of thatch roofs etc shall be taken with provisions for training to the villagers.

7. Training and demonstration of new agricultural implements, housse hold gadgets and appliances of non conventional energy.

8. To help the rural youth in preparing project reports to set up industrial units and entrepreueurial development.

9. All community polytechnics shall render, repair and maintain agricultural implements, appliances of non conventional energy, household gadgets, etc. and train the rural youth in such skills.

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XIV. ANNEXURE - II

FORMAT FOR FIELD EXPOSURE/INDUSTRIAL TRAINING

1. Name & Address of the unit

2. Date of

   i Joining.
   ii Leaving.

3. Nature of Industry

   i Product.
   ii Services.
   iii Working Hrs.

4. Sections of the unit visited and activities there in.

5. Details of machines/Tools & instruments used in working in the section of the unit visited.

6. Work procedure in the section visited.

7. Specifications of the product of the section and materials used.

8. Work of repair and maintenance cell.

9. Details of the shops related to repair and maintenance work.

10. Name of checking and Inspecting Instruments and their details. Quality control measures taken.

11. Details of appliances used if any.

12. Discripton of any breakdown and its restoring.

13. Use of computer - if any.

14. Visit of units store, Manner of keeping store items, their receiving and distribution.

15. Safety measures on work place & working conditions in general comfortable, convenient & hygeinic.

XV. ANNEXURE-III QUESTIONNAIRE

INSTITUTE OF RESEARCH,DEVELOPMENT AND TRAINING U.P. KANPUR-208024

SUBJECT : Questionnaire for ascertaining the job potential and activities of diploma holder in Textile Design with specialisation in Printing.

To revise three Year Diploma curriculum in Textile Design with specialisation in Printing.

1. Please answer the questions to the points given in the questionnaire.
2. Any other point or suggestion not covered in this questionnaire may be written on a separate paper and enclosed with the questionnaire.

1. Name of the organisation : _____
_____

2. Name & Designation of the officer filling the questionnaire. _____
_____

3. Name of the department/ section/shop. _____
_____

4. Important functions of the department/section/ shop. _____
_____

5. Number of diploma holder employees under your charge in the area of Textile Design with specialisation in Printing. _____

6. Please give names of modern equipments/machines handled by a diploma holder in Textile Design with specialisation in Printing.

1. 2. 3.

4. 5. 6.

7. What proficiencies are expected from a diploma holder in Textile Design with specialisation in Printing.

1. 2. 3.

4. 5. 6.

8. Mention the approximate percentage of the following desired in Diploma teaching.

1. Theoretical knowledge ----------%
2. Practical knowledge ----------%
3. Skill Development ----------%

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9. Do you think " on the job training " / Industrial training should from a part of curriculum. (Yes/No)
if yes then
(a) Duration of training ----------
(b) Mode of training 1. Spread over different semesters

2. After completion of course

3. Any other mode

10. What mode of recruitment is followed by your organisation.

1. Academic merit
2. Written test
3. Group discussion
4. Interview
5. On the job test.

11. Mention the capabilities/ Qualities looked for while recruiting diploma holder in Textile Design with specialisation in Printing.
(a) Technical knowledge ----------
(b) Practical skill ----------
(c) Etiqueties and behaviour ----------
(d) Aptitude ----------
(e) Health habit and social background ----------
(f) Institution where trained ----------

12. Does your organisation have any system for the survey of Textile Design with specialisation in Printing. measures of different countries/States. Yes/No

13. Does your organisation conduct field survey to know users views regarding. Yes/No
1. Textile Design measures.
2. Effect of climatic conditions.
3. Any other
If yes ; Please give brief account of each.

14. Which type of assignment do you suggest for an entrepreneur in Textile Design with specialisation in Printing.

15. In which types of organisations can a diploma holder in Textile Design with specialisation in Printing can work or serve.

1. 2. 3.

4. 5. 6.

16. Job prospects for the diploma holder in Textile Design with specialisation in Printing in the next ten years in the state / country.

17. In your opinion what should be the subjects to be taught to a diploma student in Textile Design with specialisation in Printing.

Theory Practical

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18. Kindly mention particulars regarding topics/areas which should be given more emphasis in the curriculum.

Theory Practical

19. Kindly state whether your organisation can contribute towards improvement of curriculum in above field. Yes/No
If yes : Please give names of experts in your organisation to whom contact.

20. Kindly give your valuable suggestions for being considered at the time of finilisation of curriculum.

21. What changes in technologies are to be incorporated in the development of curriculum in Textile Design with specialisation in Printing.

(Signature)

Kindly mail the above questionnaire duly filled to :-

Mr. Pankaj Yadav a
Professor
Institute of Research, Development & Training, U.P.
Govt. Polytechnic Campus
Kanpur - 208024

(Please note that all information in this survey is confidential for the use of curriculum design only).

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