

PERIYAR UNIVERSITY

Periyar Palkalai Nagar, Salem – 636 011

SCHOOL OF PROFESSIONAL STUDIES

B.VOC. PROGRAMME

DEPARTMENT OF TEXTILES AND APPAREL DESIGN

SCHEME AND SYLLABUS 2015 *onwards*

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6/2/18

PERIYAR UNIVERSITY
SCHOOL OF PROFESSIONAL STUDIES
DEPARTMENT OF TEXTILES AND APPAREL DESIGN
B.VOC PROGRAMME
SCHEME OF EXAMINATION

Part	SUBJECT TITLE		HRS			Credit	Marks		
	Subject code	Semester I	L	T	P		CIA	EA	TOTAL
I	15BTADLT01	Language - I Tamil - I	3	-	-	3	25	75	100
	15BTADHT01	Language - III Hindi - I							
II	15BTADEP01	Language – II Functional English Practical - I	1	1	2	3	40	60	100
III	15BTADCT01	Core – I Basics of Textiles	2	1	-	3	25	75	100
	15BTADAP01	Allied – I Fundamentals of Sewing Practical	1	-	2	2	40	60	100
VI	15BTADVP01	Value Education – I Yoga and Fitness Practical	1	-	-	1	40	60	100
V	15BTADSC01	QP – Sewing Machine Operator Level – 4 (Textile basics and Industrial Sewing Techniques)	4	6	6	18	-	100	100
		Subtotal	12	8	10	30	170	430	600
		Total	30			30			600
Field Visit/Internship (8-10 hrs)									
		Semester II							
I	15BTADLT02	Language - I Tamil - II	3	-	-	3	25	75	100
	15BTADHT02	Language - III Hindi - II							
II	15BTADEP02	Language – II Functional English Practical - II	1	1	2	3	40	60	100
III	15BTADCT02	Core – II Fashion Designing	2	1	-	3	25	75	100
	15BTADAP02	Allied – II Industrial Pattern Making Practical	1	-	2	2	40	60	100
IV	15BTADV01	Value Education – II – Environmental Studies	-	-	2	1	25	75	100
V	15BTADSC02	QP – Production Supervisor – Sewing Level – 5 (Apparel Production)	4	5	6	18	-	100	100
		Subtotal	11	7	12	30	155	455	600
		Total	30			30			600
Field Visit/Internship (8-10 hrs)									

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SCHEME OF EXAMINATION

Part	SUBJECT TITLE		HRS			Credit	Marks		
	Subject code	Semester III	L	T	P		CIA	EA	TOTAL
III	15BTADCT03	Core-III Fabric Structure and Design	2	1	-	3	25	75	100
	15BTADCP01	Core -I Garment Construction Practical - I (Kids Wear)	-	1	2	2	40	60	100
	15BTADAT01	Allied – I Industrial Garment machineries and Equipments	3	-	-	3	25	75	100
	15BTADAP03	Allied -III Fashion illustration Practical	-	1	2	2	40	60	100
	15BTADNP01	Non Major Elective -I MS Excel Practical	-	1	2	2	40	60	100
V	15BTADSC03	QP - Industrial Engineer (IE) Executive Level – 6 (Industrial Engineering)	4	5	6	18	-	100	100
		Subtotal	9	9	12	30	170	430	600
		Total	30			30			600
Field Visit/Internship (8-10 hrs)									
		Semester IV							
III	15BTADCT04	Core - IV Textile Processing	2	1	-	3	25	75	100
	15BTADAT02	Allied –II Textile and Apparel Quality Control	2	-	-	2	25	75	100
	15BTADCP02	Core-II Garment Construction Practical – II (Women’s Wear)	-	1	2	2	40	60	100
	15BTADAP04	Allied – IV Draping Practical	-	-	2	1	40	60	100
	15BTADCP03	Core – III Corel Draw Practical	-	1	2	2	40	60	100
	15BTADNT01	Non Major Elective –II Statistics	2	-	-	2	25	75	100
V	15BTADSC03	QP - Industrial Engineer (IE) Executive Level – 6 (Industrial Engineering)	4	5	6	18	-	100	100
		Subtotal	10	8	12	30	195	505	700
		Total	30			30			700
Field Visit/Internship (8-10 hrs)									

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SCHOOL OF PROFESSIONAL STUDIES
DEPARTMENT OF TEXTILES AND APPAREL DESIGN
B.VOC PROGRAMME
SCHEME OF EXAMINATION

Part	SUBJECT TITLE		HRS			Credit	Marks		
	Subject code	Semester V	L	T	P		CIA	EA	TOTAL
III	15BTADCT05	Core - V Knitting	2	-	-	2	25	75	100
	15BTADCT06	Core – VI Industrial Garment Costing	2	-	-	2	25	75	100
	15BTADCP04	Core – IV Garment Construction Practical– III (Men’s Wear)	-	1	2	2	40	60	100
	15BTADCP05	Core – V Graphic Design Practical	-	1	2	2	40	60	100
	15BTADCP06	Core – VI Textile Design and Structure Identification Practical	-	1	2	2	40	60	100
	15BTADEP01	Elective – I Traditional Embroidery Practical	-	1	2	2	40	60	100
V	15BTADSC04	QP - Sourcing Manager Level – 7 (Textiles and Apparel Design)	4	4	6	18	-	100	100
		Subtotal	8	8	14	30	210	490	700
		Total	30			30			700
		Field Visit/Internship (8-10 hrs)							
		Semester VI							
III	15BTADCT07	Core – VII Apparel Merchandising	2	-	-	2	25	75	100
	15BTADCT08	Core – VIII Design Thinking for Innovation	2	-	-	2	25	75	100
	15BTADCP07	Core – VII Fashion Portfolio Practical	-	1	2	2	40	60	100
	15BTADCP08	Core – VIII Textiles Coloration Practical	-	1	2	2	40	60	100
	15BTADCP09	Core – IX Computerized Pattern Making Practical	-	1	2	2	40	60	100
	15BTADET02	Elective – II Lean Six Sigma	2	-	-	2	25	75	100
V	15BTADSC04	QP - Sourcing Manager Level – 7 (Textiles and Apparel Design)	4	5	6	18	-	100	100
		Subtotal	10	8	12	30	195	505	700
		Total	30			30			700
		Field Visit/Internship (8-10 hrs)							

SEMESTER - I
LANGUAGE - I
TAMIL - I

SUB CODE - 15BTADLT01

மதிப்பெண்: 75

தமிழ் - முதல்பருவம்

அலகு - I

தமிழ் மொழி - தமிழ் மக்கள் - நாகரிகமும் பண்பாடும் - தொழிற்பிரிவினரும் சமூகஅமைப்பும் (தச்சுத்தொழில், கொல்லுத்தொழில், மட்பாண்டத் தொழில், நெய்தற் தொழில் - குறிஞ்சிநிலக் குறவர்கள், முல்லைநிலத்து ஆயர்கள், நெய்தல் நிலப் பரதவர், மருதநில உழவர்) - தமிழரின் திருமணமுறை (மரபு வழி மணம், சேவைமணம், போர் நிகழ்த்திமணம், துணங்கையாடி மணம், பரிசம் கொடுத்துமணம், ஏறு தழுவிமணம், மடலேறுமணம்) - குடும்பவாழ்வு.

ஆலகு - II

ஆடையின் தோற்றம் - ஆடை பற்றிய சொற்கள் (உடை- ஆடை- தழை- நாரடை- துகில்- கலிங்கம்- அறுவை- சிதார்- தாளை- காழகம்- மடி- பட்டு- பூங்காரை- நீலம்- தூசு- புட்டகம்- கம்பல்- நூல்- வாலி- துகச்சை- மெய்ப்பை- உத்தரீயம்- போர்வை- கவசம்- அர்த்தம்- ஈங்கட்டு- கோடி- கூறை- புடைவை- வட்டுடை- வங்கச்சாதர்- வட்டம்- கோசிகம்- காம்பு- நேத்திரம்- நீவி- கலை- இரட்டு- பீதகம்- கோபம்- பரியட்டக்காசு- தேவாங்கு) ஆடை பற்றிய விளக்கம் -ஆடைகளின் வகைகள் - ஆடை பற்றிய ஆய்வு-ஆடையை தோந்தெடுக்கும் கலை.

ஆலகு - III

கலைக்களஞ்சியம், அபிதானசிந்தாமணியில் ஆடையைகுறிக்கும் சொல் - அகராதிகள் - சங்க இலக்கியத்தில் ஆடை(நற்றிணை, ஐங்குறுநூறு, பரிபாடல், கலித்தொகை, புறநானூறு)- காப்பியங்களில் ஆடை(சிலப்பதிகாரம், மணிமேகலை, சீவகசிந்தாமணி, நீலகேசி, சூளாமணி)- பக்தி இலக்கியத்தில் ஆடை.

அலகு - IV

குழந்தைகள் - ஆடவர் - பெண்டிர் - பொதுஆடைகள் அடையும் அணியும் - ஆடை பற்றியபழமொழிகள் - ஆடை பற்றியநம்பிக்கைகள் - தெய்வங்களுக்கு உடுத்தும் ஆடைகள். (சிவபெருமான், திருமால், முருகன், விநாயகன், உமை).

ஆலகு - V

காலமும் ஆடையும் - ஆடையும் சடங்குச்சூழலும் - கைம்பெண்டிர் ஆடை - துறவிகள் ஆடை- வழிபாடும் ஆடையும் - ஆவலும் ஆடையும் - நிலமும் ஆடையும் ஆடையினைக் கையாளும் முறைகள்.

பார்வை நூல்கள்

1. பகவதி.கு, தமிழர் ஆடைகள், உலகத் தமிழாராய்ச்சி நிறுவனம், சென்னை, 1980.
2. தட்சணாமூர்த்தி.அ, தமிழர் நாகரிகமும் பண்பாடும், யாழ் வெளியீடு, சென்னை, 2005.
3. வித்தியானந்தன்.சு, தமிழர் சாஸ்ட், பாரி புத்தகப்பண்ணை, 1971.
4. தமிழ் விக்கிப்பீடியா.காம்
5. சிங்காரவேலு முதலியார்.ஆ, அபிதான சிந்தாமணி, தில்லி ஏசியன் எடுகே'னல் சர்வீஸஸ், தில்லி, 1981.

SEMESTER - I
LANGUAGE - III
HINDI - I

SUB CODE - 15BTADHT01

Marks - 75

यूनिट - 1

तमिल भाषा - तमिल लोगों - सभ्यता और संस्कृति - पेशेवर और सामाजिक संगठन - तमिल विवाह - पारिवारिक जीवन

यूनिट - 2

पोशाक - कपड़े - वस्त्र विवरण - वस्त्र - वस्त्रों के प्रकार - कला

यूनिट - 3

संगम साहित्य में कपड़े - रचना में वस्त्र - भक्ति साहित्य में वस्त्र

यूनिट - 4

बच्चों - पुरुष - महिला - सामान्य कपड़े - कपड़े और गहने - वस्त्रों पर पहुंच - पोशाक पर विश्वास - कपड़े के कपड़े

यूनिट - 5

समय और नृत्य - पोशाक और अनुष्ठान - विधवा पोशाक - संत पोशाक - पहने हुए कपड़े - नृत्य और पोशाक - भूमि और पोशाक - कपड़े

SEMESTER - I
LANGUAGE - II
FUNCTIONAL ENGLISH PRACTICALS - I

SUB CODE - 15BTADEP01

Marks - 75

Aim

To equip learners with language skills for career opportunities

Objective

To enhance effective writing and oral communication skills in English

UNIT – I : Listening

- a) Basics of Listening
- b) Active Listening
- c) Kinds of Listening
- d) Factors that hamper Listening
- e) Listening tips

UNIT – II : Art of Reading

- a) Reading is a Cognitive process
- b) Benefits of Reading
- c) Different types of Reading
- d) Tips for effective Reading
- e) The SQ3R techniques

UNIT – III : Art of Speaking

- a) Importance of Communication
- b) Barriers to Communicate
- c) Tips for Effective Communication
- d) Tips for Powerful Presentation
- e) Explaining / Justifying / Giving Reasons

UNIT – IV : Vocabulary

- a) Vocabulary enrichment: Synonyms, Antonyms, Homophones
- b) Spelling rules
- c) Idioms and phrases
- d) Common errors

UNIT – V : Art of Writing

- a) Note making
- b) Précis Writing
- c) Paragraph Writing
- d) Creative Writing

References

1. Alex. K. 2011. Soft skills: know yourself and know the world. S. Chand & Co: New Delhi
2. Heasley, Ben, Lyons, Liz Hamp. 2008. Writing: A Course in Writing Skills for Academic Purpose. Cambridge University Press: Cambridge
3. Murcia, Marianne Celce, Donna M. Brinton, Janet M. Goodwin. 2004. Teaching Pronunciation. Cambridge University Press: Cambridge
4. Redston, Chris & Gillie Cunningham. 2005. Face 2 Face. Cambridge University Press: Cambridge

**SEMESTER – I
CORE PAPER I
BASICS OF TEXTILE**

SUB CODE - 15BTADCT01

Marks – 75

Unit I: Natural Fiber:

Definition – properties of textile fibre – classification of textile fibre – filament and staple fibres - production and properties of cotton, flax, silk, wool, viscose, polyester and nylon fibres - identification of fibres by burning and chemical tests – application of various textile fibres.(Core skills: hand feel test, burning test)

Unit II: Spinning:

Objectives of spinning – objectives and functions of various departments in ring spinning (ginning to spinning) – carded and combed yarns – yarn numbering systems – yarn quality parameters- Principles of open-end, compact and air jet spinning systems – yarn properties of these spinning systems – types of fancy yarns and their uses.

Unit III: Weaving:

Objectives of cone winding, warping and sizing – working principles – objectives and principle of weaving - types of looms – primary, secondary and auxiliary mechanisms – passage of material in a plain loom – shuttle less looms: projectile, rapier and air jet weaving – woven fabric defects and remedies.

Unit IV: Knitting:

Comparison of weaving and knitting – basic terms and definitions - classification of knitting – formation of plain, rib and interlock structure – fabric properties - flat knitting – fabric defects and remedies.

Unit V: Fabric Identification:

Woven fabrics – plain, cambric, mat, twill, satin, honey comb, terry, bedford cord, velvet, jacquard structures; Knitted fabrics: plain, pique, air tex, honey comb, single jersey jacquard, single rib, derby rib, flat back rib, interlock, interlock jacquard; Non-woven – needle punched fabric, spun laced fabric, thermal bonded. (Core skills: identify these fabrics with their appearance)

Reference Books:

1. W.E. Morton & J.W.S. Hearle, Physical properties of textile fibres, Textile Institute, U.K.
2. Progress in textiles: Science and technology Vol.-2 By Dr. V.K. Kothari, I.I.T. Delhi.
3. Hand book of textile fibres by J.Gordon Cook
4. Manufactured fibre technology by V.B. Gupta & V.K. Kothari
5. Essential fibre chemistry by M.E. Cartor
6. Synthetic fibres by Fournel 184. New fibre by T.Hongu, G.O. Phillips, Woodhead publications.
7. Fibre chemistry by M. Lewin, E.M. Pearce, Marcel & Dekkan Inc.
8. Regenerated Cellulosic fibres by C. Wooding, Woodhead publishing Ltd.
9. The technology of short-shape staple spinning – W. Klein
10. Cotton spinning – Taggart
11. Spun yarn technology – Oxtoby
12. New Spinning Technology Vol. 4 & 5 –W.Klien

**SEMESTER-I
ALLIED PRACTICALS - I
FUNDAMENTALS OF SEWING**

SUB CODE - 15BTADAP01

Marks - 60

UNITS – I - Parts, Functions and Maintenance of sewing machine

- Sewing machine parts and its application
- Safety precautions
- Common hazards in the work area and work place procedures
- Basic maintenance of machine
- Setting up and adjusting machine controls
- Procedures to set the stitch size
- The importance of machine, needle, foot, needle guard and spool checks.
- Knowledge about adjusting the top tension
- Knowledge of attachments used on the Machine
- Increase and decrease the foot pressure as applicable
- Knowledge of bobbins and its part and procedures to adjust bobbins
- Procedures to use bobbin winder
- Knowledge of use of treadle
- Factors affecting Stitches
- The typical faults of stitching machines and methods to rectify them
- The action to take in the event of a machine ceasing to function correctly
- Broken needle procedures
- Types of needles and stitches

UNIT - II - Machine Skills:

- Cleaning machine
- Threading machine
- Re- Threading machine
- Changing bobbin
- Changing needle
- Changing color of thread

UNIT - III - Identify poor machine performance

- Tension faults are identified.
- Poor thread performance or incorrect thread selection is identified.
- Incorrect foot or needle for sewing is identified.
- Impact of machine performance on sewing is identified.

UNIT - IV - Knowledge of Hand sewing and Machine sewing

Hand sewing

- Sewing on buttons, hems, fasteners or hooks, tags, patch work

Machine sewing

- Basic seams, Hems , Finishes, Pockets, Collars, Plackets, Cuffs

UNIT-V - Assembling different garment components to finish a garment

- Collar attaching
- Placket attaching
- Back yoke attaching
- Cuff attaching
- Sleeve placket attaching
- Shoulder attaching
- Side seam attaching
- Knowledge of defect and faults that occur in sewing
- Different faults and remedies in sewing operation

SEMESTER - I
VALUE EDUCATION - I
YOGA AND FITNESS PRACTICALS

SUB CODE - 15BTADVP01

Marks - 60

Course Objectives

To enable the students

- To develop personality, ethics and moral values

UNIT-I :

Youth empowerment: definition - scope- need for youth empowerment in present society - philosophy of life –purpose of life - education as a means for youth empowerment - greatness of education - yoga for youth empowerment.

UNIT-II:

Human health and human body: health –need of health –efficiency of human resources- structure and function of human body- diseases – reasons for disease- preventive methods of disease –moderation in five aspects of life - balanced food –need of nutrition for good health - a review of medical systems.

UNIT-III:

Emotions and thought analysis : role of emotions for peace and stress – types of emotions- analysis of thoughts- practice- goal setting-self confidence- memory type –mnemonic techniques - training in memory- impact of blessings - managing latest technologies.

UNIT-IV:

Simplified physical exercises of sky system and meditation : simplified physical exercises - kayakalpa – managing infatuation – practice. Definition of meditation - mental frequency – types - general and special meditation in sky- importance – practices - eye brow centre meditation - genetic centre meditation-clearance - crown centre meditation.

UNIT-V:

Managing desires and anger : definition and nature of desires - root causes for desires- types of desires - desires as a plan for success-moralization of desires-anger-causes of anger- anger and peace- evil effects of anger- tolerance and forgiveness-neutralization of anger-practice.

References

1. Value education for health, happiness and harmony, world community service centre, vethathiri publications, erode, www.vethathiri.edu.in



QUALIFICATION PACK – OCCUPATIONAL STANDARD FOR APPAREL, MADE-UP'S AND HOME FURNISHING SECTOR



What are Occupational Standards(OS)?

OS describe what individuals need to do, know and understand to carry out a particular job or occupation.

OS are developed by experts in the industry to ensure that the individuals who are trained have the necessary knowledge and understanding.

Contact Us:
Apparel Home Textiles
4th, National Max,
Corporate Park,
Gurgaon
Phone:
Fax:
ceo@sscamh.com

Contents

1. Introduction and Contacts..... Page no. 1
2. Qualifications Pack.....Page no.2
3. OS Units.....Page no.2
4. Glossary of Key TermsPage no.3

Introduction

Qualification Pack - Sewing Machine Operator

SECTOR: APPAREL, MADE-UP'S AND HOME FURNISHING

SUB SECTOR: Apparel / Made-Up's / Home Furnishing

OCCUPATION: Stitching

REFERENCE ID: AMH/Q0301

ALIGNED TO: NCO – 2004 / 8263.10

Sewing Machine Operations involves stitching of components of garments together using a sewing machine. The role of a sewing machine operator is very critical to the industry as it enhances the quality of the product.

Brief Job Description:A Sewing Machine Operator, also called a 'Stitcher or Machinist' is an important job-role associated with Apparel sector. The primary responsibility of a machinist is to stitch/ sew fabric, fur, or synthetic materials to produce apparels.

Personal Attributes:A Sewing Machine Operator should have good eyesight, eye-hand-leg coordination, motor skills and vision (including near vision, distance vision, colour vision, peripheral vision, depth perception and ability to change focus).



SEMESTER - II
LANGUAGE - I
TAMIL - II

SUB CODE - 15BTADLT02

மதிப்பெண்: 75

தமிழ் - இரண்டாம் பருவம்

அலகு - I

சிந்துவெளிநாகரிக ஆடை (கி.மு.3000) வேதகால ஆடை (கி.மு.2500) -பௌத்தர் கால ஆடை (கி.மு.5நூற்றாண்டு) மௌரியர் கால ஆடை (கி.பி.300) -குப்தர், இராசபுத்திரர் கால ஆடை (கி.பி.320முதல் 1300) -மொகலாயர் ஆடை (கி.பி. 12-17 நூற்றாண்டு) -கேரளம் (பண்டையதமிழகம்).

அலகு - II

உடையின் தோற்றம் - செயற்பாடுகள் - இந்தியஉடைகளின் வரலாறும் பண்பாடும் - பண்பாட்டுஉடை - தொழில்சார் உடைகள் - தமிழரின் அன்றைய இன்றைய உடைகள் - அழகியல் நோக்கில் ஆடையின் தத்துவம் - மூலப்பொருட்களும் முதலாடையும் - என்ன வகை ஆடை எப்போது அணிவது

அலகு - III

ஆடையினைக் கையாளும் விதிமுறைகள் - ஆடையில் அரசகுலவழக்கு - சூதும் ஆடைச் சூழலும் - குறிப்புக்காட்டல் - வினை-ஆடையும் கனவும் - மந்திரமும் உடையும் - பழக்கவழக்கங்கள்

அலகு - IV

தமிழ் நாட்டுஆடைகள் - பெண்களும் அவர்கள் உடுத்தும் உடைகளும் - வேட்டி உருவான விதம் - வேட்டியின் வகைகளும் அணியும் முறையும் - பிற மாநிலங்களில் வேட்டி - தமிழகத்தில் தற்போதுள்ள சூழலில் வேட்டியின் நிலை -தமிழர் உடுத்தும் பிறஆடைகள்

அலகு - V

வணிகம் - ஆடைத் தொழிலாளர் நிலை- ஆடை அணிவது பற்றிய சட்டங்கள்- ஆண்கள் அணிவது பெண்கள் அணிவது - ஆடை தொடர்பான தொழிற்சாலைகள்- ஆடைத்துறை தொடர்பான வேலைவாய்ப்புகள் - இன்றைய சூழலில் ஆடையின் பங்கு - உலகத்தமிழர் பேரமைப்பின் தமிழர் தேசிய உடைக்கான பரிந்துரை

பார்வைநூல்கள்

1. பகவதி.கு, தமிழர் ஆடைகள், உலகத் தமிழாராய்ச்சி நிறுவனம், சென்னை,1980.
2. வித்தியானந்தன்.சு, தமிழர் சால்பு, பாரி புத்தகப்பண்ணை,1971.
3. மீராமுகைதீன்.அ, இலக்கிய ஆய்வுகள், உலகத் தமிழாராய்ச்சி நிறுவனம், சென்னை,1974.
4. தமிழ் விக்ரிப்பீடியா.காம்.

SEMESTER - II
LANGUAGE - III
HINDI - II

SUB CODE - 15BTADHT02

Marks - 75

यूनिट - I

सिंधु घाटी के वस्त्र - वैदिक कपड़ों - बौद्ध युग की पोशाक - मौर्य युग की पोशाक - गुप्ता, राजपुत्र युग की पोशाक - मुगल ड्रेसिंग - केरल (प्राचीन तमिलनाडु).

यूनिट - II

पोशाक की शुरुआत - क्रियाएं - भारतीय वस्त्र का इतिहास और संस्कृति - सांस्कृतिक शैली - व्यावसायिक कपड़े - तमिलों की प्राचीन और आज की पोशाक - सामग्री और सामग्री के सिद्धांत के सौंदर्यशास्त्र दृष्टिकोण - हम किस प्रकार के वस्त्र जब पहना चाहिए ?

यूनिट - III

ड्रेसिंग के नियम - राजवंश की पोशाक - वस्त्र और पहनने - संदर्भ - प्रतिक्रिया - वस्त्र और सपना - मंत्र और पहनने वाला - आदतों.

यूनिट - IV

तमिलनाडु कपड़े - महिला और उन्हें पहनती कपड़े - कुर्ता जिस तरह से यह उत्पन्न हुआ - कुर्ता के प्रकार और पहने की विधि - अन्य राज्यों में कुर्ता पहने की आदतों - तमिलनाडु में वैदी स्थिति - तमिलनाडु के अन्य कपड़े

यूनिट - V

व्यापार - कपड़े व्यावसायिक की स्थिति - ड्रेसिंग कपड़ों के नियम - महिलाओं के कपड़े - पुरुषों के कपड़े - वस्त्र संबंधित उद्योग - वस्त्र संबंधी नौकरियां - आज के वातावरण में पोशाक की भूमिका - तामिलर तमिलों के राष्ट्रीय पोशाक की सिफारिश

SEMESTER - II
LANGUAGE - II
FUNCTIONAL ENGLISH PRACTICALS - II

SUB CODE - 15BTADEP02

Marks - 75

Aim

To expose the students to the skills of knowledge necessary for better communication

Objective

To expose the students to the importance and nuances of business communication and to initiate them into the realm of professional communication

Unit – I: Basics of Communication

- a) Verbal and Non-verbal Communication
- b) The Communication Process
- c) Barriers to Effective Communication
- d) Types of communication (intra Vs inter-communication)

Unit – II: Official Communication

- a) Kinds of business Letter
- b) Importance of Internal Communication
- c) Using visual Aids in Communication
- d) Reports – Definition, types and structure

Unit – III: Presentation Skills

- a) Self Introduction
- b) Extempore Speech
- c) Pair Interpretation of Visual
- d) Telephonic Interview
- e) Job Interview

Unit – IV: Business & Social Correspondence

- a) Purpose & Structure
- b) Qualities
- c) Types of Correspondence
- d) Social Correspondence

Unit – V: Expression and Attitude

- a) Creative expression – copy writing – Creative advertisement - Writing captions and slogans
- b) Nonverbal – Personal Appearance - Gestures – Eye Contact
- c) Team Building - Team Work – Developing Positive Attitude
- d) Career Plans – Jobs – Description of Dream Jobs and Company

Reference

1. Dhanavel, S.P, **soft skills**, 2001
2. Prakash C.L., **An Advanced Course in communication and Media Awareness**, Cambridge University Press, New Delhi, 2007.
3. Mohan, Krishna & Meera Banerji, **Developing Communication Skills**, Macmillan, India, 2009.
4. Sasikumar V., et.al., **Oral Communication Skills, Foundations Books**, Cambridge University Press, New Delhi, 2009.

**SEMESTER - II
CORE PAPER - II
FASHION DESIGNING**

SUB CODE - 15BTADCT02

Marks - 75

UNIT-I:

Fashion terminology: Fashion, Style, Design, Trend, Fad, Classic, Collection, Chic, Custom made Mannequin, fashion show, trend, forecasting, high fashion, haute couture, prêt – a – porter, Fashion cycle-Forecasting, Concepts of Inspiration, mood board, colour board.

UNIT-II:

Design- definition and types – structural and decorative design, requirements of a good structural and decorative design. Elements of design line, shape or form, colour, size and texture. Application of structural and decorative .

UNIT-III:

Principles of design- balance –formal and informal, rhythm- through repetition, radiation and gradation, emphasis, harmony and proportion. Application of principles of design in a dress.

UNIT-IV:

Colour- definition, colour theories- prang colour chart and munsell colour system, Dimensions of colour- hue, value, and intensity. Standard colour harmonies - application in dress design. Psychology of Colors

UNIT-V:

Silhouettes and figures types-Pear figure, Hour glass figure, Rectangular Figure, Wedge Figure, Overall Roundness figure. Choosing the best dress for the figure types, Factors influencing design application for different age group, occasions and seasons

Reference:

1. Fashion Terminology, *Joane E. Blair*, Prentice Hall, 1992
2. Elements of Fashion and Apparel Design, *G. J. Sumathi*, New Age International, 2007
3. The Fashion Design Manual, *Macmillan Education AU*, 1996
4. Fashion Design: The Complete Guide, *John Hopkins*, A&C Black, 2012
5. Contemporary Color: Theory and Use, *Steven Bleicher*, Cengage Learning, 2011
6. Colour Design: Theories and Applications Best, Elsevier, 2012
7. Textiles and Fashion: Exploring Printed Textiles, Knitwear, Embroidery, Menswear and Womens wear, *Jenny Udale*, A&C Black, 2014
8. The Very Best Dress, *Erick Howard, Karan Kerry*, 2014 Crafts & Hobbies
9. Form, Fit, Fashion: All the Details Fashion Designers Need to Know But Can Never Find, *Jay Calderin*, Rockport Publishers, 2009
10. Fashion Design: Process, Innovation and Practice, *Kathryn McKelvey, Janine Munslow* John Wiley & Sons, 2011

**SEMESTER - II
ALLIED PRACTICALS - II
INDUSTRIAL PATTERN MAKING**

**SUB CODE - 15BTADAP02
UNIT-1**

Marks - 60

KNOWLEDGE:

- **Knowledge of pattern making:** Patternmaking terms: Pattern drafting, flat pattern making and draping.
- **Knowledge about tools and equipments:** Measuring tools, marking tools, cutting tools Sewing tools, pressing equipments and miscellaneous tools.
- **Knowledge about pattern paper:** Heavy weight paper and Light weight paper.
- Knowledge of body measurements and form measurements.
- Preparation for measuring.
- How to take body Measurements for men's, women's and children garments.
- How to read buyers tech pack, and measurement Chart.
- **Knowledge of Fabric Terms:** Muslin, Grain, selvage, bias, true bias, bowing and skewing Controlling the grain, aligning the grain line, thread marking grains.-(Knit wear terms, Woven terms)
- **Knowledge of Pattern grain line:** grain line arrows, direction of grain line.
- Task of Industrial pattern maker.
- Pattern correction.

SKILL:

1. Drafting of Basics bodices for Men, Women's and Children.
2. Converting basic bodies in to garment styles.
 - Men's wear (2variations styles) in knits and woven
 - Women's wear(2variations styles) in knits and woven
 - Children's wear(2variations styles) in knits and woven
3. Grading and marker planning-Manual and CAD.
4. Garment construction

VALUE EDUCATION - ENVIRONMENTAL STUDIES

SUB.CODE: 15BTADV01

MAX.MARK: 100

HOURS: T+P=C

2+0=2

Objectives

- To get knowledge on the importance of environmental studies.
- To understand about the natural resources and their importance
- To acquaint with different types of pollution and their control measures and also on social issues and the environment

S.No.	Topic/Module	Key Learning Outcomes	Duration in Hrs
1.	Multidisciplinary Nature of Environmental Studies and Natural Resources	<ul style="list-style-type: none">• Definition, scope and importance and need for public awareness• Renewable and Non-renewable Resources, Natural resources and associated problems - Role of an individual in conservation of natural resources - Equitable use of resources for sustainable lifestyles.	5
2.	Ecosystems	<ul style="list-style-type: none">• Concept of an ecosystem - Structure and function of an ecosystem.• Producers, consumers and decomposers. Energy flow in the ecosystem.• Ecological succession. Food chains, food webs and ecological pyramids.• Introduction, types, characteristic features, structure and function of the following ecosystem: (a) Forest ecosystem (b) Grassland ecosystem (c) Desert ecosystem (d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estauries)	8
3.	Biodiversity and Its Conservation	<ul style="list-style-type: none">• Introduction, definition: genetic, species and ecosystem diversity.• Bio geographical classification of India. Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values.• Hot-spots of biodiversity.• Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts.• Endangered and endemic species of India	8
4.	Environmental Pollution	<ul style="list-style-type: none">• Definition - Causes, effects and control measures of (a) Air pollution (b) Water pollution (c) Soil pollution (d) Marine pollution (e) Noise pollution (f) Thermal pollution (g) Nuclear hazards	
5.	Waste Management	<ul style="list-style-type: none">• Management of Urban/ Municipal solid waste-Types of solid waste, sources of generation, processing/disposal/Management technologies.	10
Total Duration			36

Reference:

1. Ref: file:///C:/Users/Admin/Downloads/UGCsyllabusforEnvironmentalStudies.pdf



QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR APPAREL, MADE-UP'S AND HOME FURNISHING SECTOR

What are Occupational Standards(OS)?

OS describe what individuals need to do, know and understand in order to carry out a particular job role or function.

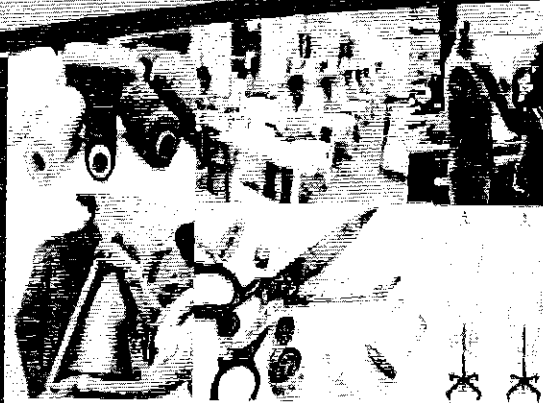
OS are performance standards based on individual's skills, attributes, values, work carrying out, relationships, health, workplace, together with practical skills, knowledge and understanding.

Contact Us:

SAC AMH

Email:

cont@sectcouncils.com



Contents

1. Introduction and Contents.....	P.1
2. Qualifications Pack.....	P.2
3. Glossary of Key Terms.....	P.3
4. NOS Units.....	P.5

Introduction

Qualifications Pack – Production Supervisor-Sewing

SECTOR: APPAREL, MADE-UP'S AND HOME FURNISHING

SUB-SECTOR: APPAREL

OCCUPATION: PRODUCTION SUPERVISION

REFERENCE ID: AMH/Q2101

ALIGNED TO: NCO-2004/7433.05

Brief Job Description: A Supervisor guides activities of operators and/or other employees engaged in the process of manufacturing, inspection, processing and related activity. Production Supervisor plans and allocates resources and monitors schedules. Their work includes checking output, input material, equipment and ensuring process controls. They communicate, simplify, and interpret specifications, job orders, and procedures for operators and provide solutions to problems that affect the desired output and organizational goals. They also train employees for continual improvement and to achieve the organizational objectives.

Personal Attributes: A Supervisor should have analytical thinking skills to evaluate alternative solutions. He/she needs to coordinate effectively as per situational requirements and should be able to communicate with clarity. Good sense of time management is also essential.

SEMESTER - III
CORE PAPER - III
FABRIC STRUCTURE AND DESIGN

SUB CODE - 15BTADCT03

Marks -75

Unit-I

Woven fabric design principles-Classification of Woven Structures-Methods of Weave Representation-Weave Repeat- concepts of drafting and peg-plan.

Study Analysis: Design, Draft And Peg Plan

Unit-II

Designs of elementary weaves: plain and its derivatives (warp rib, weft rib, and matt) – Twill and its derivatives (pointed twill, herring bone twill, broken twill, combined twill) **Study**

Analysis: Plain weave and its derivatives (Warp rib, Weft rib),Twill Weave

Unit-III

Honey comb, Huck a back weave, Satin and sateen weaves, Mock leno weave, Crepe Weave and its modifications **Study Analysis : Satin, Sateen, Honey comb Weave, Huck a back Weave, Mock leno weave.**

Unit-IV

Extra warp and extra weft figuring. Warp and weft backed fabrics, Double cloth – classification, self-stitched and centre stitched, double cloth.

Study Analysis: Extra Warp and Weft Figuring

Unit-V

Pile fabric – Formation of pile – weft pile – plain back velveteen, twill back velveteen, weft- plush, corduroy warp pile- terry pile and wire pile

Study Analysis: Terry pile structures

References:

1. Gokarneshan, D.N. (2009) *Fabric structure and design*. New Age International (P) Ltd, Newdelhi (2004)
2. Watson's. Grosichkli Z Newness, Butter Worths, *Textile Design and Colour* London 1980.
3. Watson's, Grosichkli Z Newness, Butter worths, *Advanced Textile Design* London 1989
4. Corbmann B P , *International students edition, Textiles – fibre to fabric*, Mc Graw Hill book Co, Singapore 1985

SEMESTER –III
CORE PRACTICAL -I
GARMENT CONSTRUCTION (KIDS WEAR)

SUB CODE - 15BTADCP01

Marks - 60

OBJECTIVES

1. To develop skills in different techniques of pattern development and construction for children's garments
2. To understand the principles of grading standardized to various sizes

Designing, drafting and constructing the following garments

Girl's kids wear

A-Line frock
Yoke frock
Pinafore
Skirt and Tops

Boy's kids wear

Baba suit
Knickers
Shirt and trouser
Summer suit

SEMESTER – III
ALLIED PAPER – I
INDUSTRIAL GARMENT MACHINERIES AND EQUIPMENT'S

SUB CODE - 15BTADAT01

Marks - 75

Unit- I:

Apparel manufacturing operation involved in the following department: Merchandising and Planning, Human Resource, Industrial Engineering, Accountancy, Security, Electrical, Machine Maintenance, Accessory Stores, Fabric, Pattern making & Sampling, Cutting/Layout Sewing, Finishing, Quality Control, Packing, Final Inspection and Shipment

Unit-II:

General machines: Boilers, Power generator, worker punching machine

Cutting machines: Plotter, spreader, cutting machine by hand, band knife machine, automatic cutter, Sticking machine.

Sewing machines used for woven and knits: Single Needle lock stitch (SNLS), Double Needle Lock stitch (DNLS), Over lock machine and its type, Feed of Arm (FOA), Edge cutter with SNLS, Welt Pocketing, Auto Zig, Flat lock machine – and its types.

Finishing machineries for woven and knits: Bar tack, Button hole machine, 2 & 4 button finishing machine, Press button machine. Metal detection machine (MDM)

Unit-III:

Sewing machine attachments: Introduction to sewing machine attachments - Classification of Sewing machine attachments (Guide attachments, positioning attachments and preparation and finishing attachments) - Understand the functions and its types of Edge guide, Presser foot, Hemming foot, zipper foot and folders.

Unit-IV:

Stitching operation Layout and machineries used for Shirt Manufacturing, Trouser Manufacturing and T-Shirt Manufacturing

Unit-V:

Fusing equipment – Sucking – Ironing - Packing. Pressing - Purpose of pressing – Types of pressing methods - Pressing, equipment and methods - Iron and steam press.

Reference

1. Babu, r. V. (2012). *Industrial engineering in apparel production*. Woodhead publishing.
2. Cooklin, g. (2006). *Introduction to clothing manufacture*. Wiley.
3. Cooklin, g., hayes, s. G., mcloughlin, j., & fairclough, d. (2012). *Cooklin's garment technology for fashion designers*. John wiley.
4. Glock, r. E., & kunz, g. I. (2005). *Apparel manufacturing: sewn product analysis*. Pearson/prentice hall.
5. Karthik, t., ganesan, p., & gopalakrishnan, d. (2016). *Apparel manufacturing technology*. Crc press.
6. Ngai shing development limited, <http://www.ngaishinghk.com/en/text.asp>
7. Phillips, c. (2009). *The sewing machine attachment handbook*. Krause publications.
8. Rathinamoorthy, r., & surjit, r. (2015). *Apparel machinery and equipments*. Crc press.
9. Smith, j. (2013). *Guide to basic garment assembly for the fashion industry*. John wiley.
10. Tyler, d. J. (2009). *Carr and latham's technology of clothing manufacture*. John wiley.
11. *Complete photo guide to sewing*, sewmucheasier.com/guide to your sewing machine presser feet.

**SEMESTER – III
ALLIED PRACTICAL - III
FASHION ILLUSTRATION**

SUB CODE - 15BTADAP03

Marks - 60

1. Basic media and tools

- Pencil & colour mediums.
- Colour pencils, Poster colour/ water colour, crayon.
- Charcoal.
- Pastel.
- Types of brushes.

2. Basic line & shading exercise

- Different types of Lines.
- Varies pencil pen shading.

3. Nature study (Nature in form, Nature in print, Nature in texture)

- Sketching of natural forms.
- Conversion of natural forms into design forms.
- Copying various textures from nature.

4. Object Drawing

5. Drawing of 3-D geometrical shapes in different angles.

6. Introduction to Perspective & its types

7. Human figure study:

- Basic parts of human bodies
- Basic Observing figures - using lines

SEMESTER - III
NON MAJOR ELECTIVE PRACTICAL – I
MICROSOFT EXCEL

SUB CODE - 15BTADNP01

Marks - 60

Learning Outcome:

Upon completion of the course the learners will be able to

- Create and design a spread sheet for office use
- Demonstrate formatting techniques and presentation styles
- Demonstrate the use of basic functions and formulas
- Demonstrate working knowledge of organizing and displaying large amount of data
- Demonstrate how to secure information in an Excel book

Introduction to Excel: Understanding the use of Excel

Basic use of Excel: Important Excel terms, important menus/toolbars, movement keys, inserting and deleting columns and rows, copy and paste

Using Excel short cuts: Short cuts with function key, control key and miscellaneous short cut

Calculation with Excel: Formulas, references, references to other sheets and work book, functions, adding numbers with the SUM-function, how to use all functions in Excel

Formatting: General formatting, colors, borders and text manipulation

Charts: Choosing and inserting charts, modifying charts

Working with large amount of data: Search and replace, freeze panes, filters, comments and tables

Printing and protecting: Making the data fit the paper, protecting your work in Excel

Exercises

- Prepare a sales projection sheet and present with graph
- Prepare loan payment calculation sheet
- Prepare operation wise costing sheet
- Prepare employee salary sheet
- Create a simple budget
- Prepare garment daily production cost sheet
- Prepare factory efficient report monthly plan

Reference

Walkenbach, J. (2015) Excel 2016 bible. Available at: (Accessed: 27 January 2017).

**SEMESTER - IV
CORE PAPER – IV
TEXTILE PROCESSING**

SUB CODE - 15BTADCT04

Marks – 75

UNIT- I - Grey Preparation

Singeing objectives and need - principle gas singeing machine – yarn singeing - merits and demerits of singeing – Desizing objectives and need – acid and enzyme desizing - relative advantages and disadvantages - Scouring objectives and principles – scour loss - bleaching of cotton materials with hydrogen peroxide – continuous bleaching with J-box - role of optical brighteners

Mercerisation - objects and principle of mercerization - yarn and fabric mercerization - outline of pad-less chainless fabric mercerization

UNIT - II - Dyeing

Classification of dyes, difference between dye and pigment, common terms used in textile colouration – procedure of dyeing of cotton material with direct, reactive, vat dyes - dyeing of wool and silk with acid, reactive and basic dyes – dyeing of polyester and polyester/cellulosic blended materials using disperse and reactive dyes.

Dyeing machines - principles of working of jigger, winch, jet, soft-overflow and package dyeing machines - garment dyeing machines

UNIT - III - Printing

Comparison of dyeing and printing - methods of printing - principles of block, roller, flat - bed screen and rotary-screen printing – transfer printing techniques - styles of printing - principles of direct, discharge and resist styles of printing – concept of batik printing and flock printing - printing of cotton, wool, silk and polyester fabrics with dyes. Printing with pigments. garment printing machines and printing inks- digital printing- sublimation printing- 3D printing concept.

UNIT – IV - Finishing

Classification of textile finishes – objectives and need of finishing - mechanical and chemical finishes: calendaring and sanforising - compacting of knitted fabric – softening with silicon - principles of functional and aesthetic finishes - wrinkle-free (durable press) finishing of cotton, UV-protective finish, antimicrobial finish, flame-retardant finish, water-repellent finish and soil release finish- garment washing with enzymes.

UNIT – V - Effluent Treatment

Nature of effluents in chemical processing, effect of waste water discharge on the environment, Government standards for textile chemical process effluent discharges - treatment of dye house effluent – primary, secondary and tertiary treatments – reverse osmosis - azo dyes and major banned amines - eco-friendly textile processing – eco labels

REFERENCES

1. Shenai V. A., Technology of Textile Processing – Vol. III, IV, V, VII and VIII, Sevak Publications, Mumbai, 1995
2. D G Dugg and S Sinclair, “Giles's Laboratory Course in Dyeing”, Woodhead Publishing Limited (Fourth edition) December 1989
3. Palmer John W., Textile Processing and Finishing Aids: Recent Advances, Mahajan Book Distributors, 1996
4. Ronald James W., Printing and Dyeing of Fabrics and Plastics, MahajanBook Distributors, 1996
5. L. W. C Wiles, “Textile Printing” (Merrow Monographs. Textile Technology Series)

SEMESTER – IV
ALLIED PAPER - II
TEXTILE AND APPAREL QUALITY CONTROL

SUB CODE - 15BTADAT02

Marks - 75

UNIT - I

Define Quality - Definitions of Quality – holistic Perspective, Product Perspective, Produces Perspective, Customer Perspective and Value Based Perspective, Dimensions of Quality.

UNIT-II

Define Standard, Benefits Of Standard, Levels of Standard, Source of Standard - ASTM, AATCC, ANSI, BSI, ISO, ISO 9000 Series Standard, American Society for Quality, American Apparel And Footwear Asocial, Tc², American National Standard Quality, Advantages of registering to these Standard. OEKO Tex 100 standard.

UNIT-III

How to start Managing Quality- Managing quality through Inspection, Managing quality through Testing, Seven tools of qualities.

Defects: Define Defect, Defective Product, Major Defect, Minor Defect, Establishing Acceptance levels

Definition of fabric defects: Baggy-bar-Barre-Balk-Bias filling-Bowed filling-Broken end-Chafe-Coarse end-Color Run-End out-Fine End-Flat-Float-Fly-Fuzz balls-Fuzz-Hard size-Hitch back-Jerked -in- filling-kink-Mispick-Misreed-mixed yarn-pick out Mark-reed Mark-shaded-shuttle mark-Slub-Smash-Temple marks-Tentering Marks-uneven finish-wrong draw.

Inspection : Definition of Inspection-Raw Materials- Inspection-In process Inspection-Final Inspection

Inspection system:4-point system,10-point system.

UNIT-IV

Quality control & Quality standards for sewing thread, seam strength, seam properties, Interlinings, elastic, waistband, zippers, sewing threads, buttons and laces. Accessories testing - Inspecting garments using spec sheets – Inspecting garments using measuring tapes - without using measuring tapes – Button quality testing - Interlining quality testing - Packing a shirt and identifying faults-Printing and Embroidery.

UNIT –V

Concepts of TQM - tools used for quality assurance - Care labels - labeling Instructions and eco labels specification- International care labeling system – Japan –Canada -British care labeling systems.

Reference:

1. Mehta V., "Managing quality in the apparel industry ", New Age International, Chennai, 1998
2. Mehta P.V. "An Introduction to Quality Control for the Apparel Industry ", Marcel Dekker, 1992.
3. Quality Management ", Textile Progress, The Textile Institute, Manchester, 1998
4. E-Study cylinder for acceptance sampling quality in control by Edward G.Schilling

SEMESTER - IV
CORE PRACTICAL – II
GARMENT CONSTRUCTION – II (WOMEN'S WEAR)

SUB CODE - 15BTADCP02

Marks – 60

1. Designing, drafting and constructing the following garments for the features given below
2. Calculate the cost of the garment.
 - i. Salwar
 - ii. Kameez
 - iii. Short Kurta
 - iv. Ladies Pant
 - v. Skirt

**SEMESTER – IV
ALLIED PRACTICAL - IV
DRAPING**

SUB CODE - 15BTADAP04

Marks – 60

1. Basic Preparation For Draping

- i. Equipment Needed
- ii. preparation of Muslin for Draping
- iii. Blocking
- iv. Pressing

2. Basic Patterns

- i. Basic bodice - Front
- ii. Basic bodice - Back
- iii. Basic Skirt
- iv. Basic Sleeve

SEMESTER - IV
CORE PRACTICAL – III
COREL DRAW

SUB CODE - 15BTADCP03

Marks – 60

1. Introduction to coral draw – System requirements, Corel versions.
2. Coral draw models and applications.
3. Working environment – Tool box, Menu bar, Property bar, Docker, Page layout, Status bar.

EXERCISE

1. Understanding Graphics - Vector and Factor
 - Creating garment flat sketches using shaping options
 - Creating merchandising spec sheet using garment flat sketches.
 - Manipulating flat sketches for style changes – Collar, Sleeve, Placket, Pocket, Hemline, Stitch line
2. Design studies in coral
 - Structural design - creating fabric swatches, Handkerchief designs
 - Decorative design: studies in coral
 - Embroidery design
 - Transfer sticker designing
 - Creation of stencil designs
3. Working with text
 - Labels – Style label, Size label
 - Logo – Brand logo, Style logo
 - Monograms
4. Screen printing
 - Developing screen for spot, all over border designs

**SEMESTER – IV
NON MAJOR ELECTIVE – II
STATISTICS**

SUB CODE - 15BTADNT01

Marks - 75

UNIT - I

Origin - Scope – Functions – limitations - uses and misuses of statistics - Classification and Tabulation of data - Diagrammatic and Graphical representation of data.

UNIT - II

Measures of Central tendency: Mean– Median – Mode - Measures of Dispersion: Range – Quartile Deviation – Standard Deviation – Coefficient of Variation.

UNIT - III

Probability – Classical Definition - Proprieties - Addition and Multiplication Theorems - Conditional Probability – Bayes theorem - Simple problems.

UNIT - IV

Simple Linear Correlation and Regression - Scatter Diagram - Karl Pearson's Correlation Coefficient and its Properties - Spearman's Correlation co-efficient. Regression equations - Properties.

UNIT - V

Time Series: Definition – uses – Secular Trend – Graphical Method – Method of Semi Averages – Method of Moving Averages – Method of Least Squares – Method of simple Averages – Simple Problems.

BOOKS FOR STUDY

1. Goon, A.M Gupta M.K and Dasgupta B. (2008). Fundamentals of Statistics, Volume I, World Press Ltd, Calcutta.
2. Gupta S.C and V.K Kapoor. (2000). Fundamentals of Mathematical Statistics, Sultan Chand and Sons, New Delhi.
3. Hogg R.V. McKean J.W. and Craig A.T. (2013). Introduction to Mathematical Statistics, (Seventh Edition), Pearson Education Ltd.
4. Spiegel M.R. Schiller J and Srinivasan R.A. (2012). Probability and Statistics, Schaum's Outline Series (Fourth Edition), McGraw- Hill Publishing Company, New Delhi.



SECTOR SKILL COUNCIL
APPAREL MADE-UPS HOME FURNISHING



N.S.D.C.
National Skill Development Corporation
Transforming the skill landscape

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR APPAREL MADE-UPS & HOME FURNISHING SECTOR

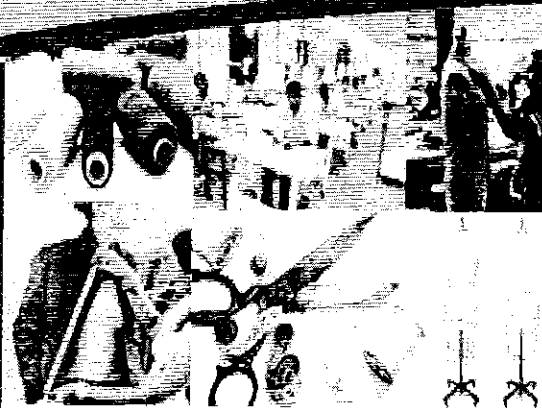
What are Occupational Standards(OS)?

OS describe what individuals need to do, know and understand in order to carry out a particular job role or function.

OS are performance standards that individuals must achieve when carrying out functions in the workplace together with specifications of the underlying knowledge and understanding.

Contact Us:

AMH/SC
10001
Sector Skills Councils



Contents

1. Introduction and Contents.....	P.1
2. Qualifications Pack.....	P.2
3. Glossary of Key Terms.....	P.3
4. NOS Units.....	P.5

Introduction

Qualifications Pack – Industrial Engineer (IE) Executive

SECTOR: APPAREL, MADE-UP'S AND HOME FURNISHING

SUB-SECTOR: APPAREL

OCCUPATION: INDUSTRIAL ENGINEERING

REFERENCE ID: AMH/Q 2001

ALIGNED TO: NCO-2004 / 8263.90

Brief Job Description: An Industrial Engineer is responsible for determining most effective ways to create a product or service in sewing line. Their work includes analysis of the sewing method & process, machine and supervision of production floor for efficiency improvement.

Personal Attributes: An Industrial Engineer on sewing floor should have good analytical and communication skills and have thorough knowledge of sewing process & different kind of sewing machines & equipments.

SEMESTER - V
CORE PAPER – V
KNITTING

Sub Code : 15BTADCT05

Marks – 75

UNIT - I

Knitting - Definition - History of knitting - Characteristics of knitted goods - Terms and definitions used in knitting, Classification of warp and weft knitting machines - Knitting needles – Spring, beard , Latch and Compound needles.

UNIT - II

Classification of Weft knit structures, Characteristics of Plain, Rib, Interlock and Purl knit structures, Working of Single jersey, Rib, Interlock and Purl circular knitting machines.

UNIT - III

Symbolic representation of Weft knit structure - CAM system - 3 way techniques to develop design- Effect of knit, tuck, float stitches on fabric properties. Jacquard knitting - pattern wheel, pattern drum, tape patterning device, electronic devices.

UNIT - IV

Warp knitting fundamentals, Basic warp knitted structure– Classification of Warp knitting machines - Tricot, Raschel, Simplex and Milanese, Points of difference between Raschel and Tricot knitting machine.

UNIT - V

Yarn quality requirements for knitting; Defects in Weft and Warp knitted fabrics - causes and remedies; Care and maintenance of knitted material.

TEXT BOOK:

1. Knitting Technology, David Spencer, Pergamen Press, Oxford, London (2005).

BOOKS FOR REFERENCE:

1. Knitting Technology, D.B.Ajgoankar, Universal Publishing Corporation, Mumbai (1998).
2. Knitting Clothing Technology, Terry Brackenbury, Blackwell Science Ltd., Australia, (1992).
3. Textiles –Fibre to Fabric, Corbman B P , International Student's Edition, McGraw Hill Book Co., Singapore (1985).

SEMESTER – V
CORE PAPER - VI
INDUSTRIAL GARMENT COSTING

Sub Code : 15BTADCT06

Marks – 75

UNIT-I

Introduction to Costing

Definition of Costing, Costing Principles. Costing Terminology: Costing Methods and their Applications, Costing Techniques, Classification of Costs

UNIT-II

Elements of Costing and General Operating Expenses, Cost Sheet: Meaning of cost sheet, Contents of Cost Sheet, Uses of Cost Sheet, Types of Cost Sheet

UNIT-III

Composition of Cost of Garment: Fabric, Parameters that affect the Fabric Cost, Minimum Order quantity, Incoterm used, Calculating the Cost of fabric, Cost Calculation of Fabric in a garment, Fabric consumption for woven fabric and Knits, Calculation for trims, CMT, Value Added Service. **Cost Estimation for Production:** Cutting, Stitching, Packing, shipping and Insurance

UNIT-IV

Pricing and costing Strategies

Pricing Formula: Cost of Goods, Markup, Wholesale selling price, **Pricing Strategies:** Rigid Calculation, Subjective Pricing, Pricing Variables, **Costing Strategies:** Managerial Accounting, Direct Costing, Absorption Costing, Activity Based Costing, **Costing Levels:** Quick Costing, Costing for sale, Production costing, Accounting Costing

UNIT-V

Define General Sewing Data and Standard Allocate Minutes, How to Calculate Standard allocate Minute using General Sewing Data Prepare Cost Sheet for Woven (Shirt and Trouser) and Knit Garments (T-Shirt)

REFERENCES

1. A Textbook of Costing Principles, Norman spencer, East officer publisher, 1986.
2. Costing for the Fashion Industry by Michael Jeffrey Nathalie Evans ,2011.
3. Cost Accounting by Tulsian, Tata publisher McGraw-Hill Education , 2006.
4. Apparel Manufacturing Technology, By T. Karthik, P. Ganesan, D. Gopalakrishnan, CRC Press,2016
5. Beyond Design: The Synergy of Apparel Product Development, Sandra Keiser , Myrna B.Garner A & C Black
6. Garment Manufacturing Technology edited by Rajkishore Nayak, Rajiv Padhye

SEMESTER – V
CORE PRACTICAL - IV
GARMENT CONSTRUCTION – III (MEN'S WEAR)

Sub Code : 15BTADCP04

Marks – 60

Designing, Drafting and Constructing the following garments

- Pant – Pencil Cut, Patch Pocket
- Shirt - Full Open, Shirt collar, Patch pocket
- Pyjama – Elastic / Tape attached in waist
- Kurtha - Stand collar, side pocket, half open
- T-Shirt – Open collar, zip attached.

SEMESTER – V
CORE PRACTICAL - V
GRAPHIC DESIGN

Sub Code : 15BTADCP05

Marks - 60

UNIT - I

Introduction to Photoshop : Photoshop need for Fashion industry, Work Space Overview, Top Menu Bar, How to create a new Document, Photoshop Tool Palette, Shortcut keys and uses

UNIT – II

- I. Preparing Files and Creating a color Palette
- II. Scanning : Basics, Scanning and Aligning Fabrics
- III. Layers : Use and Function in Design, Exercises on Layers
- IV. Masks : How to use mask in Adobe Photoshop
- V. Channels : Working with Channels

UNIT – III

- I. Textiles Design
- II. Fabric Swatches (Checks and Prints)

UNIT – IV

- I. Texture Mapping

UNIT – V

- I. Application of Weave designs to Flat Sketches

Reference

1. Rendering Fashion, Fabric and Prints, Pearson Education 2007
2. Adobe Photoshop for Textile Design, Frederick Chipkin, Origin inc, 2012

SEMESTER – V
CORE PRACTICAL - VI
TEXTILE DESIGN AND STRUCTURE IDENTIFICATION

Sub Code : 15BTADCP06

Marks – 60

UNIT – I – Identifications of Textiles Fiber

Fiber – Cotton, Silk, Wool, Nylon, Polyester, Linen, Rayon, Jute.

- I. Microscopic method
- II. Flame test
- III. Feel test
- IV. Chemical test

UNIT – II – Woven Fabric Design and Identification of Fabric Sample

- I. Plain and its derivatives (Rib and Basket)
- II. Twill – Ordinary Twill, Pointed, Herringbone, Variation in thread interlacement 2/1, 3/1
- III. Satin
- IV. Dobby Weaves
 - a) Honey Comb
 - b) Huck a Back
- V. Extra Warp and Extra Weft
- VI. Double Cloth – Positive and Negative Motifs
- VII. Pile weave – Velvet, Velveteen

UNIT – III – Knit Fabric Design and Identification of Knit Fabric Sample

- I. Single Jersey
- II. Interlock
- III. Rib Knit 1x1, 2x2
- IV. Raschel Knit
- V. Jacquard Knit
- VI. French Terry (Fleece)
- VII. Pique Knit
- VIII. Terrey
- IX. Yarn Dyed (Auto stipe, Feeder strip, Engineering strip)

SEMESTER – V
ELECTIVE PRACTICAL - I
TRADITIONAL EMBROIDERY

Sub Code : 15BTADEP01

Marks – 60

UNIT - I - Basic Stitches

Fly stitch, Stem Stitch, Chain Stitch, Satin Stitch, Herring Bone, Running Stitch, Button Hole, Interlace Stitch, French Knot, Bullion Knot, Cross Stitch, Chevron Stitch and Darning

UNIT - II - Traditional Embroidery

Chikankari of Lucknow - Kasida of Kashmir - Pulkhari of Punjab - Chamba Rimal of Himachal Pradesh - Kutch & Kathiawar of Gujarat - Kasutu of Karnataka - Lambadi Embroidery - Kantha of Bengal - Sujani of Bihar

Reference:

1. Embroidery Stitches – Mary Webb, 2006, China, Pages 28 – 34
2. Indian Embroideries: Threads That Weave Together The Fabric Of India By Aditi Ray 2017
3. Treasury of Smocking Designs, Allyne S. Holland, Newyork, 1985.
4. Nirmal C. Mistry, Embroidery, Naganeeth Publications Ltd., 1999.
5. Kit Pynan and Carole, The Harmony Guide to Decorative Needle Craft, Lyric Books Ltd., 1982.
6. Shailaja m. and Naik. D., Traditional Embroideries of India, KPH Publishing Corporation, 1996.
7. Ritu, Attractive Embroidery Designs, Indica Publishers, 1995.
8. Modern Embroidery Series, MBD Publishers, 1995.

**SEMESTER – VI
CORE PAPER – VII
APPAREL MERCHANDISING**

Sub Code : 15BTADCT07

Marks – 75

UNIT - I

Merchandising: Introduction, Meaning- Apparel Merchandising – Concepts of „Six Rights“ – Organization structure of an apparel industry – Classification of Exporters - Rating or Grading of export houses – Classification of buyers – Export merchandising and retail merchandising – Company profile and its contents. Types of merchandiser - Functions of a merchandiser – Essential requisites of a good merchandiser – Vendor sourcing, evaluation and development – Global sourcing – Vendor nomination by buyers – Reasons for vendor nomination.

UNIT - II

Process flow in apparel industry – Buyer sourcing & communication – Enquiry – Order confirmation – order review and its importance – Planning & programming: Master planning, Scheduling or route card – Factors for route card - programming for yarn, knitting, dyeing, stitching, sampling, accessories – Samples: Meaning & importance – Types of samples – expedition of samples

UNIT - III

Inspection and its types – Testing – Check points before cutting - Pilot run or trial run and its importance – Approvals - Types of approvals – Shipping marks – Final inspection procedures – Self, Second and Third party inspection - Effective expedition procedures.

UNIT - IV

Order sheet and its contents – Packing list and its contents – Document formats: order sheet, packing list, invoice, inspection and testing reports etc., - Assortment and its types. Documents recording and maintenance – Claims and reasons for claims - Factory audits – Buyers code of conducts.

UNIT - V

Advertising- scope, importance, types, merits & demerits; sales promotion, personal selling. Retail management. Export associations – Apparel Export Promotion Council – Journals and magazines related to apparel and textiles –Trade shows and Fairs – Participation in trade shows – Advantages of trade shows and fairs - Apparel & Textile Trade shows and fairs in India.

References

1. Building Buyer Relationships, Daragho' Reilly, Jullian J. Gibbs
2. Inside the Fashion Business, Mc Millan Publishing Co.,
3. Fashion Merchandising, Elian Stone,
4. Apparel Merchandising, An integrated Approach, Krishnakumar, M, 2010, Abishek Publications
5. Apparel Merchandising, Robin Mathew, Book Enclave Publishers, Jaipur

SEMESTER – VI
CORE PAPER – VIII
DESIGN THINKING FOR INNOVATION

Sub Code : 15BTADCT08

Marks – 75

Design Process – 7 Stages of Design

Define, Research, Ideate, Proto Typing, Selection, Implementation, Learn

1. Stage of Thinking – Design, Creativity, Design Process
2. Research – Primary Research, Secondary Research
3. Idea Generation – Creating Potential Solution
4. Refinement - Think Image, Think in Science, Humor, Personification, Modification,
Thinking in Words and Language, Type “Face”, Thinking in Shape, Proportion, Color
5. Proto Type – Developing Design Type of Proto Type
6. Implementation – Format, Material, Finish Media Scale,

Reference:

1. Design Thinking for Innovation: Research and Practice, Walter Brenner, Falk Uebernickel Springer, 2016
2. Design Thinking: Understand – Hasso Plattner, Christoph Meinel, Larry Leifer Springer Science & Business Media, 2010

**SEMESTER – VI
CORE PRACTICAL – VII
FASHION PORTFOLIO**

Sub Code : 15BTADCP07

Marks – 60

Portfolio development and presentation technique;

1. To be planned for a season or occasion.
2. Mood board, Story board, Fabric board, color board
(To be presented separately or in a combined form)
3. Fabric development chart
4. Design development chart
5. Final presentation.
6. Number of garments in a collection 4-6 garments.

**SEMESTER – VI
CORE PRACTICAL – VIII
TEXTILE COLORATION**

Sub Code : 15BTADCP08

Marks – 60

1. Estimation of water hardness by EDTA method.
2. Combined Scouring & Bleaching of grey cotton knitted fabrics and estimation of loss percentage.
3. Dye the given cotton sample with natural dyes.
4. Dye the given cotton sample with hot brand reactive dyes & H-E dyes.
5. Dye the given Silk material with acid / basic dyes.
6. Dye the given Acrylic material with basic dyes.
7. Dye the given polyester sample using carriers.
8. Dye the given fabric for the given pattern using Tie & Dye Technique.
9. Develop a batik motif and print on the given sample.
10. Prepare the print paste with pigment colour and print on the given fabric.
11. Print the given fabric with reactive dyes by Resist Style.
12. Prepare the print paste with reactive dyes and print on the given fabric by discharge style

**SEMESTER – VI
CORE PRACTICAL – IX
COMPUTERIZED PATTERN MAKING**

Sub Code : 15BTADCP09

Marks – 60

Prepare pattern making, grading and marker planning for the following garment

children's wear.

- Yoke frock
- Baba suit
- Summer frock

Women's wear

- Salwar kameez
- Tops
- Princess line dress

Men's wear

- Slack shirt
- full sleeve shirt
- pleated trouser

References

1. Pattern making for fashion design, Helen Joseph Armstrong, Pearson Education, 2011
2. Patternmaking: a comprehensive reference for fashion design, Sylvia Rosen, Pearson Prentice Hall, 2004
3. Metric Pattern Cutting for Children's Wear and Babywear, Winifred Aldrich, John Wiley & Sons, 2012
4. Metric Pattern Cutting for Men's wear, Winifred Aldrich, John Wiley & Sons, 2012

**SEMESTER – VI
ELECTIVE PAPER – II
LEAN SIX SIGMA**

Sub Code : 15BTADET02

Marks – 75

UNIT - I - EVOLUTION OF LEAN SIX SIGMA

Introduction to Lean Principles and Six Sigma Concepts-Similarities and Differences – Synergy-Evolution of Lean Six Sigma.

UNIT - II - LEAN SIX SIGMA APPROACH

Lean Six Sigma Methodology - Phases of Lean Six Sigma Method, Managing Lean Six sigma Project, Six sigma Methodologies (DMAIC, DMADV , DFSS)

UNIT- III - SIX SIGMA TOOLS AND TECHNIQUES

Advanced Statistical Tools - Statistical Process Control - Process Capability Analysis Sigma computation - Hypothesis Testing – ANOVA - Design of Experiments- Chi - Square test, Regression analysis – Case studies.

UNIT - IV - LEAN TOOLS

Value Stream Mapping – Poka Yoke - 5S - Cycle Time Analysis – Push - Pull System - Waste Elimination Total Productive Maintenance - Failure Mode Effect Analysis - Standard Work Practices - Control Plans, SMED , Kanban , Visual control , Kaizen – Case studies.

UNIT - V - LEAN SIX SIGMA IMPLEMENTATION

Identifying Lean Six Sigma Projects, Define Scope, Planning for Implementation, Selection of tools and Techniques for each phase, Measuring the Benefits.

REFERENCES:

1. Michael L. George, David Rowlands, Bill Kastle ,What is Lean Six Sigma,McGraw-Hill, 2003
2. Thomas Pyzdek,The Six Sigma Handbook ,McGraw-Hill, 2000
3. James P. Womack , Daniel T. Jones ,Lean Thinking, Free press business,2003.
4. Forrest W. Breyfogle III ,Implementing Six Sigma: Smarter Solutions UsingStatistical Methods ,1999.
5. Liker, Jeffrey; Meier, David ,Toyota Talent , Tata Mcgraw Hills

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR APPAREL, MADE-UP'S AND HOME FURNISHING

Contents

1. Introduction and Contacts.....	P.1
2. Qualifications Pack.....	P.2
3. Glossary of Key Terms.....	P.3
4. NOS Units.....	P.5
5. Assessment Criteria.....	P.30

What are Occupational Standards(OS)?

OS define the level of individual skills, knowledge and understanding required to carry out a particular job or set of functions.

OS are performance standards that individuals must achieve when carrying out a particular set of work tasks. They are developed by the industry to ensure that individuals have the knowledge and understanding to perform the job.

Contact Us:

AMH/EX - Apparel
 Home Furnishing
 Institutional APEN
 Corporation 2007
 11/13/14
 Contact: ceo@sscammh.in



Introduction Qualifications Pack – Sourcing Manager

SECTOR: Apparel, Made-up's and Home Furnishing

SUB-SECTOR: Apparel, Made-up's and Home Furnishing

OCCUPATION: Sourcing Manager

REFERENCE ID: AMH/Q0920

ALIGNED TO: NCO-2004 / NIL

The Sourcing Manager procures and purchases right materials, at right quantity, at right price and at optimal lead time.

Brief Job Description: Sourcing Manager in an apparel, made-ups and home furnishing industry is primarily concerned with procurement of fabrics, trims & accessories as per design needs and/or as per sample requirements received from merchandiser. The role is supervising the functionary of purchase departments. He/she is concerned with identifying suitable suppliers for materials assessed on the basis of price, quality, reliability, time and long term business relations.

Personal Attributes: He/she should be well versed with business scenario, well-informed about various manufacturers and suppliers, systematic and abreast of business environment changes affecting product availability, price and quality. He/she should be extrovert and highly communicative. He should be able to work under pressure.