CURRICULUM – 2018

(C-18)

DIPLOMA IN FOOTWEAR TECHNOLOGY



STATE BOARD OF TECHNICAL EDUCATION & TRAINING

TELANGANA, HYDERABAD

III SEMESTER

TEACHING AND EXAMINATION SCHEME

Sl. No.	Course Code	Course Name	Teaching Scheme					Examination Scheme						
			Instruction periods per week			Total Periods per semester	Credits	Continuous internal evaluation			Semester end examination			
			L	T	P			Mid sem. I	Mid sem. II	Internal evaluation	Max. Marks	Min. Marks	Total marks	for passing including
1	18FW-301C	Applied Engineering Mathematics	3	1	0	60	3	20	20	20	40	14	100	35
2	18FW-302C	Elementary Footwear designing	3	1	0	60	3	20	20	20	40	14	100	35
3	18FW-303C	Basic Leather goods Fabrication Technology	3	1	0	60	3	20	20	20	40	14	100	35
4	18FW-304C	Footwear Upper Fabrication Technology	3	1	0	60	3	20	20	20	40	14	100	35
5	18FW-305C	Leather Goods and Footwear Materials	3	1	0	60	3	20	20	20	40	14	100	35
6	18FW-306P	Basic Leather goods fabrication lab practice	1	0	2	45	1.5	20	20	20	40	20	100	50
7	**18FW**-307P	Footwear cutting and pre fitting operations lab practice	1	0	2	45	1.5	20	20	20	40	20	100	50
8	18FW-308P	Elementary Footwear Designing practice	1	0	2	45	1.5	20	20	20	40	20	100	50
9	18FW-309P	Basic Range building	1	0	2	45	1.5	20	20	20	40	20	100	50
10	18FW-310P	Communication and Life skills Lab Practice	1	0	2	45	1.5	20	20	20	40	20	100	50
11		Skill up gradation	0	0	7	105	2.5	0	0	**Rubrics**				
		Total	20	5	17	630	25	200	200	200	400	170	1000	425
Activities: student performance is to be assessed through Rubrics														

APPLIED ENGINEERING MATHEMATICS

Course Title **: APPLIED ENGINEERING MATHEMATICS**	Course Code **: 18EC-301F**
SEMESTER : **III**	Course Group **: Foundation**
Teaching Scheme (L : T : P) : **3 :1 : 0 (** in Periods)	Credits : **3 Credits**
Type of Course : **Lecture + Assignments**	Total Contact Periods : **60**
CIE : 6**0 Marks**	SEE : **40 Marks**
Programmes : **Common to all Engineering Diploma Programmes**	

Pre requisites

This course requires the knowledge of Basic Engg. Mathematics and Engg. Mathematics at Diploma 1st and 2nd Semester level.

Course Outcomes: COs

At the end of the course, the student will have the ability to:

CO 1	Integrate different kinds of functions
CO 2	Integrate functions using different methods
CO 3	Find the values of definite integrals.
CO 4	Solve simple problems of Areas, Volumes.
CO 5	Find the Mean and RMS values of various functions and Approximate values of Definite integrals using Trapezoidal and Simpson's 1/3rd rule
CO 6	Form the Differential Equation and Solve Simple DEs of 1st order and 1stdegree.

Course Content:

Unit-I **Duration: 10 Periods (L: 6.0 – T:4.0)**

Indefinite Integration-I

Integration regarded as anti-derivative – Indefinite integral of standard functions. Properties of indefinite integral. Integration by substitution or change of variable. Integrals of the form $\sin^m\theta . \cos^n\theta$. where m and n are positive integers. Integrals of tan x, cot x, sec x, cosec x and powers of tan x, sec x by substitution.

Evaluation of integrals which are reducible to the following forms:

$$i)\ \frac{1}{a^2+x^2}, \frac{1}{a^2-x^2}, \frac{1}{x^2-a^2}$$

$$ii)\ \frac{1}{\sqrt{a^2+x^2}}, \frac{1}{\sqrt{a^2-x^2}}, \frac{1}{\sqrt{x^2-a^2}}$$

$$iii)\ \sqrt{x^2+a^2}, \sqrt{a^2-x^2}, \sqrt{x^2-a^2}$$

Unit – II **Duration: 08 Periods (L: 4.8 – T:3.2)**

Indefinite Integration-II

Integration by decomposition of the integrand into simple rational algebraic functions. Integration by parts, Bernoulli's rule.

Unit-III **Duration: 06 Periods (L: 3.6 – T:2.4)**

Definite Integral and its Properties:

Definite integral-fundamental theorem of integral calculus, properties of definite integrals, evaluation of simple definite integrals. Definite integral as the limit of a sum.

Unit – IV **Duration: 10 Periods (L: 6.0 – T:4.0)**

Applications of Definite Integrals:

Areas under plane curves – Sign of the Area – Area enclosed between two curves. Solid of revolution – Volumes of solids of revolution.

Unit – V **Duration: 08 Periods (L: 4.8 – T:3.2)**

Mean, RMS values and Numerical Integration:

Mean values and Root Mean Square values of a function on a given interval.

Trapezoidal rule, Simpson's 1/3 rule to evaluate an approximate value of a definite integral.

Unit – VI **Duration: 18 Periods (L: 10.8 – T:7.2)**

Differential Equations of First Order:

Definition of a differential equation – order and degree of a differential equation – formation of differential equations – solution of differential equation of first order, first degree : variables -separable, homogeneous, exact, linear differential equation, Bernoulli's equation.

Suggested Learning Outcomes

Unit-I

1.0 Use Indefinite Integration to solve engineering problems

1.1 Explain the concept of Indefinite integral as an anti-derivative.

1.2 State the indefinite integral of standard functions and properties of Integrals $\int (u + v)\, dx$ And $\int ku\, dx$ where k is constant and *u, v* are functions of *x.*

1.3 Solve integration problems involving standard functions using the above rules.

1.4 Evaluate integrals involving simple functions of the following type by the method of substitution.

i) $\int f(ax + b)\, dx$ *where* $f(x)\, dx$ is in standard form.

ii) $\int [f(x)]^n f'(x)\, dx$

iii) $\int f'(x)/[f(x)]\, dx$

iv) $\int f\{g(x)\} g'(x)\, dx$

1.5 Find the Integrals of *tan x, cot x, sec x* and *cosec x using*the above.

1.6 Evaluate the integrals of the form $\int Sin^m\theta Cos^n\theta .\, d\theta$ where m and n are positive integers.

1.7 Evaluate integrals of powers of *tan x* and *sec x.*

1.8 Evaluate the Standard Integrals of the functions of the type

$$i)\frac{1}{a^2+x^2},\frac{1}{a^2-x^2},\frac{1}{x^2-a^2}$$
$$ii)\frac{1}{\sqrt{a^2+x^2}},\frac{1}{\sqrt{a^2-x^2}},\frac{1}{\sqrt{x^2-a^2}}$$
$$iii)\sqrt{x^2+a^2},\sqrt{a^2-x^2},\sqrt{x^2-a^2}$$

1.9 Evaluate the integrals of the type

$$\int \frac{1}{a \pm bSin\theta} d\theta, \int \frac{1}{a \pm b\cos\theta} d\theta \text{ and } \int \frac{1}{a\cos\theta \pm b\sin\theta \pm c} d\theta .$$

Unit-II

2.0 Use Indefinite Integration to solve engineering problems

2.1 Evaluate integrals using decomposition method.

2.2 Evaluate integrals using integration by parts with examples.

2.3 State the Bernoulli's rule for evaluating the integrals of the form $\int u.vdx$.

2.4 Evaluate the integrals of the form $\int e^x [f(x) + f'(x)]\, dx$.

Unit-III

3.0 Understand definite integral and use it in engineering applications

3.1 State the fundamental theorem of integral calculus

3.2 Explain the concept of definite integral.

3.3 Calculate the definite integral over an interval.

3.4 State various properties of definite integrals.

3.5 Evaluate simple problems on definite integrals using the above properties.

3.6 Explain definite integral as a limit of sum by considering an area.

Unit –IV

4.0 Understand definite integral and use it in engineering applications

4.1 Find the Areas under plane curves and area enclosed between two curves using integration.

4.2 Obtain the Volumes of solids of revolution.

Unit –V

5.0 Understand Mean, RMS values and Numerical Methods

5.1 Obtain the Mean value and Root Mean Square (RMS) value of the functions in any given Interval.

5.2 Explain the Trapezoidal rule, Simpson's 1/3 rules for approximation of definite integrals andprovide some examples.

Unit –VI

6.0 Solve Differential Equations in engineering problems.

6.1 Define a Differential equation, its order and degree

6.2 Form a differential equation by eliminating arbitrary constants.

6.3 Solve the first order first degree differential equations by the following methods:

i. Variables Separable.

ii. Homogeneous Equations.

iii. Exact Differential Equations

iv. Linear differential equation of the form $dy/dx + Py = Q$,

where P and Q are functions of x or constants.

v. Bernoulli's Equation (Reducible to linear form.)

6.4 Solve simple problems leading to engineering applications by using above methods.

Reference Books:

1. Integral Calculus Vol.I, by M.Pillai and Shanti Narayan

2. Thomas' Calculus, Pearson Addison –Wesley Publishers

Suggested E-Learning references

1. www.freebookcentre.net/mathematics/introductory-mathematics-books.html

2.E-books:www.mathebook.net

Suggested Student Activities

1. Student visits Library to refer Standard Books on Mathematics and collect related material
2.Quiz
3.Group discussion
4.Surprise tests
5. Seminars
6. Home Assignments

CO / PO - MAPPING MATRIX

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	Mapped POs
CO1	3	2	2	1			1			3	1,2,3,4,7,10
CO2	3	2	2	1			1			3	1,2,3,4,7,10
CO3	3	2	2	1			1			3	1,2,3,4,7,10
CO4	3	2	2	1			1			3	1,2,3,4,7,10
CO5	3	2	2	1			1			3	1,2,3,4,7,10
CO6	3	2	2	1			1			3	1,2,3,4,7,10

MID SEM EXAMINATIONS

S.No	Unit Name	MID SEM-I EXAM			
		R	U	A	Remarks
1	Unit-I	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-II	3, 4	6(a) 6(b)	8(a) 8(b)	
	Total Questions	4	4	4	
S.No	**Unit Name**	**MID SEM-II EXAM**			
		R	U	A	Remarks
1	Unit-III	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-IV	3, 4	6(a) 6(b)	8(a) 8(b)	
Total Questions		4	4	4	

SMESTER END EXAMINATIONS

<table>
<tr><th rowspan="2">Sl No</th><th rowspan="2">Unit No.</th><th colspan="3">Questions to be set for SEE</th><th rowspan="2">Remarks</th></tr>
<tr><th colspan="2">R(1 Mark)</th><th>U(3 Marks)</th><th>A(5 Marks)</th></tr>
<tr><td>1</td><td>I</td><td rowspan="11">4</td><td rowspan="2">1</td><td rowspan="2">9(a)</td><td rowspan="2">13(a)</td><td rowspan="2"></td></tr>
<tr><td>2</td><td>II</td></tr>
<tr><td>3</td><td>III</td><td rowspan="2">2</td><td rowspan="2">10(a)</td><td rowspan="2">14(a)</td><td rowspan="2"></td></tr>
<tr><td>4</td><td>IV</td></tr>
<tr><td rowspan="3">5</td><td rowspan="3">V</td><td rowspan="6">3</td><td rowspan="3">5, 6</td><td>9(b)</td><td>13(b)</td><td rowspan="3"></td></tr>
<tr><td>11(a)</td><td>15(a)</td></tr>
<tr><td>11(b)</td><td>15(b)</td></tr>
<tr><td rowspan="3">6</td><td rowspan="3">VI</td><td rowspan="3">7,8</td><td>10(b)</td><td>14(b)</td><td rowspan="3"></td></tr>
<tr><td>12(a)</td><td>16(a)</td></tr>
<tr><td>12(b)</td><td>16(b)</td></tr>
<tr><td colspan="2">Total Questions</td><td colspan="2">8</td><td>8</td><td>8</td><td></td></tr>
</table>

MODEL QUESTION PAPERS

Code: C18-EC-301F

STATE BOARD OF TECHNICAL EDUCATION & TRAINING, TELANGANA

BOARD DIPLOMA EXAMINATIONS

MID SEM –I, MODEL PAPER, III SEMESTER

APPLIED ENGINEERING MATHEMATICS

TIME: 1: 00 Hour Max. Marks: 20

PART-A

Instructions: 1. Answer **ALL** questions 04 X 01 = 04

2 Each question carries **ONE** mark

1. Integrate: $e^x - \sin x + x^4$
2. Find : $\int \frac{dx}{5x+7}$ dx
3. Write Bernoulli's rule of integration
4. Find : $\int x \log x \, dx$

PART-B

Instructions: 1. Answer any **TWO** questions 02 X 03 = 06

2. Each question carries **THREE** marks

5 a). Evaluate : $\int \frac{x^5}{1+x^{12}} dx$.

Or

5 b) Evaluate : $\int \frac{dx}{(x^{2+}25)}$

6 a). Evaluate : $\int x \, sinx dx$

Or

6 b).Evaluate : $\int \frac{3x+2}{(x-1)(2x+3)} dx$.

PART C

Instructions: 1. Answer any **TWO** questions 02 X 05 = 10

2. Each question carries **FIVE** marks

7 a). Evaluate $\int \sqrt{x^2 + 2x + 5}\, dx$

Or

7 b) Evaluate : $\int cosx\, cos2x dx$.

8 a). Find $\int xTan^{-1}x dx$.

Or

8 b) Find $\int x^4 Cos2x dx$.

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Code: C18EC-301F

STATE BOARD OF TECHNICAL EDUCATION & TRAINING, TELANGANA

BOARD DIPLOMA EXAMINATIONS

MID SEM –II, MODEL PAPER, III SEMESTER

APPLIED ENGINEERING MATHEMATICS

TIME: 1: 00 Hour Max. Marks: 20

PART-A

Instructions: 1. Answer **ALL** questions 04 X 01 = 04

2 Each question carries **ONE** mark

1. Integrate : $\int_0^1 (x^4 + 1)\, dx$
2. Evaluate : $\int_0^{\pi} Sin3x dx$
3. Evaluate : $\int_0^1 \frac{1}{1+x^2} dx$
4. Write the formula to find area bounded by the curve y= f(x) , x-axis,between the limits x=a and x =b

PART-B

Instructions: 1. Answer any **TWO** questions 02 X 03 = 06

2. Each question carries **THREE** marks

Find the Mean value of the function y = logx on [1 , e]

5 a) Evaluate: $\int_0^{\frac{\pi}{2}} \sqrt{1 - Sin2x} dx$

Or

5 b) Evaluate : $\int_0^{\frac{\pi}{2}} sin^2 x dx$

6 a). Find the area bounded by the line 2x + y =8, x-axis and the lines x = 2 and x = 4.

Or

6 b). Find the Volume of the Solid generated by revolving the part of the Circle $x^2 + y^2 = 36$

From x = 0 to x = 4 about x – axis.

PART C

Instructions: 1. Answer any **TWO** questions 02 X 05 = 10

2. Each question carries **FIVE** marks

7 a). Evaluate: $\int_0^{\frac{\pi}{2}} \frac{\sqrt{Sinx}}{\sqrt{Sinx}+\sqrt{Cosx}}\,dx$

Or

7 b). Evaluate : $\int_0^{\frac{\pi}{2}} \log sin\, x dx$

8 a) Find the area enclosed between the Parabolas $y = 3x - x^2 and y = x^2 - x.$

Or

8 b). Find the Volume of the Solid generated by the revolution of the area bounded by the

Ellipse $\frac{x^2}{25} + \frac{y^2}{16} = 1$, about x- axis.

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18EC-301F

BOARD DIPLOMA EXAMINATION,(C-18)

MODEL PAPER

III SEMESTER EXAMINATION

APPLIED ENGINEERING MATHEMATICS

Time: 2 hours [Total Marks: 40]

PART-A

Instructions: 1. Answer **ALL** questions 08 X 01 = 08

2 Each question carries **ONE** mark

1. Integrate: $x^7 - 3/x$

2. Evaluate: $\int_0^1 (x^2 + 1)$ dx

3. Write the formula to find mean value of y = f(x), in the interval (a, b)

4. Find the Order and Degree of the Differential Equation $x\frac{dy}{dx} = \sqrt{1 + \left(\frac{dy}{dx}\right)^2}$.

5 Write Trapezoidal Rule to find the approximate value of $\int_a^b f(x)dx$.

6. Write the formula to find RMS value of y = f(x) over the range x=a and x = b.

7. Solve: $\frac{dy}{dx} = e^{2x+y}$

8. Write the condition for exactness of the differential equation M(x,y)dx + N(x,y)dy =0

PART-B

Instructions: 1. Answer any **FOUR** questions 04 X 03 = 12

2. Each question carries **THREE** marks

9 a). Evaluate: $\int_0^{\frac{\pi}{2}} \sqrt{1 - Sin2x}dx$

Or

9 b) Find the approximate value of $\int_0^6 \frac{dx}{1+x}$ by taking n = 6 using Trapezoidal rule.

10 a) Find the area bounded by the Parabola $y = x^2 - 2x + 1$ and x-axis.

Or

10 b) Form the Differential Equation from $y = Ae^x + Be^{3x}$ where A, B are arbitrary Constants.

11 a) Find the RMS value of $\sqrt{\log x}$ over the range x= 1 and x= e

Or

11 b) Calculate approximate value of $\int_0^4 \frac{dx}{1+x}$ by taking n= 4 using Simpson's 1/3 rule

12 a) Solve: $x\frac{dy}{dx} + 2y = logx$.

Or

12 b) Solve: $x(1-y^2)dx + y(1-x^2)dy = 0$

PART C

Instructions: 1. Answer any **FOUR** questions 04 X 05 = 20

2. Each question carries **FIVE** marks

13 a) Evaluate: $\int \frac{1}{x^2+2x+2}$ dx

Or

13 b) Find the RMS value of y = $\sqrt{8-4x^2}$ between x = 0 and x = 2

14 a) Find the volume of solid generated by revolving the Ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ about Major axis

Or

14 b) Solve: $\frac{dy}{dx} = Sin(x+y)$

15 a) A curve is drawn to passing through the points given by the following table:

x	1	1.5	2	2.5	3	3.5	4
y	3	3.4	3.7	3.8	2.7	2.6	2.1

Calculate the approximate area bounded by the curve , x-axis and the lines x= 1 and x= 4 using Simpson's 1/3 rule

Or

15 b) Evaluate: $\int_0^1 \sqrt{(1-x^2)}dx$ approximately by taking n = 4 using

Simpson's 1/3 rd Rule.

16 a) Solve : $(y^2 - xy)dx = x^2dy$.

Or

16 b) . Solve: $\frac{dy}{dx} + yCosx = y^3$Sin2x.

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SUGGESTED ACTIVITIES FOR - APPLIED ENGINEERING MATHEMATICS

ACTIVITY ASSESSMENT :

1. **Mathematical concepts**
2. **Procedure**
3. **Explanation**
4. **Working with others**
5. **Mathematical errors**

ACTIVITIES:

1 .Write a short notes on different types of integrals.

2. Prepare a notes on different methods to evaluate integrals.

3. List out Properties of definite integrals.

4. List out and explain various applications of definite integrals.

5. Explain the procedure to solve problems on Areas using integration

6. Explain the procedure to find volumes of irregular shapes of solids of revolution using integration.

7. Prepare a presentation to find Mean values and R.M.S values of any given function.

8. Explain the procedure to calculate approximate area by using Trapezoidal rule.

9. Explain the procedure to calculate approximate area by Simpson's 1/3 rule

10. Prepare a presentation on solving 1st order differential equations using any suitable method.

Rubrics for Activity assessment

CATEGORY	**4**	**3**	**2**	**1**
Mathematical Concepts	Explanation shows complete understanding of the mathematical concepts used to solve the problem(s).	Explanation shows substantial understanding of the mathematical concepts used to solve the problem(s).	Explanation shows some understanding of the mathematical concepts needed to solve the problem(s).	Explanation shows very limited understanding of the underlying concepts needed to solve the problem(s) OR is not written.
Procedures	Typically, uses an efficient and effective procedure to solve the problem(s).	Typically, uses an effective procedure to solve the problem(s).	Sometimes uses an effective procedure to solve problems, but does not do it consistently.	Rarely uses an effective procedure to solve problems.

Explanation	Explanation is detailed and clear.	Explanation is clear.	Explanation is a little difficult to understand, but includes critical components.	Explanation is difficult to understand and is missing several components OR was not included.
Working with Others	Student was an engaged partner, listening to suggestions of others and working cooperatively throughout lesson.	Student was an engaged partner but had trouble listening to others and/or working cooperatively.	Student cooperated with others, but needed prompting to stay on-task.	Student did not work effectively with others.
Mathematical Errors	90-100% of the steps and solutions have no mathematical errors.	Almost all (85-89%) of the steps and solutions have no mathematical errors.	Most (75-84%) of the steps and solutions have no mathematical errors.	More than 75% of the steps and solutions have mathematical errors.

CO / PO - MAPPING OF ACTIVITIES:

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	3	2	2	1			1	2	2	3
CO2	3	2	2	1			1	2	2	3
CO3	3	2	2	1			1	2	2	3
CO4	3	2	2	1			1	2	2	3
CO5	3	2	2	1			1	2	2	3
CO6	3	2	2	1			1	2	2	3
CO7	3	2	2	1			1	2	2	3
CO8	3	2	2	1			1	2	2	3
CO9	3	2	2	1			1	2	2	3
CO10	3	2	2	1			1	2	2	3

Elementary Footwear Designing

Course Title :	**Elementary Footwear designing**	Course Code	**18FW-302C**
Semester	**III**	Course Group	**Core**
Teaching Scheme in Periods(L:T:P)	**3:1:0**	Credits	**3**
Methodology	**Lecture + Assignments**	Total Contact Hours :	**60Pds**
CIE	**60 Marks**	SEE	**40 Marks**

Rationale:
The objective of this course is to make student to design and develop patterns for open type footwear and closed type footwear.

Pre requisites

Basic knowledge of Last, Mean forme, basic styles, sizing systems.

Course Outcomes

CO1	Illustrate the influence of 5 basic elements on Fashion, Fashion cycles
CO2	Prepare Mean form for given Last.
CO3	Designing and develop the patterns for Open type footwear.
CO4	Designing and develop the patterns for Derby style.
CO5	Designing and develop the patterns for Oxford style
CO6	Designing and develop the patterns for Derby, Oxford style Variations.

COURSE CONTENT

UNIT 1

1. **History of Footwear Fashion, Basic styles of Footwear**
2. History of Footwear Fashion, Greek, Roman Periods, American Colonies period, Oriental Footwear Fashion, Five basic elements of Fashion, seven basic styles of footwear, Trickle down, Trickle up theory of fashion, cyclic nature of Fashion.

UNIT2

2. **Mean form preparation**

Importance of mean form, tools used, Development of Inside form, Outside form , Mean form preparation for the given last using Scotch tape.

UNIT3

3. **Designing and pattern development of open type footwear.**

Develop Patterns for Single Piece Sandal, Two piece Sandal, Sandal with Vamp, Buckled Counter Strap.

UNIT 4

4. **Designing and pattern development of Derby style.**

Development of Derby base, Upper shell, Upper pattern, Development of lining shell, Lining pattern for Toe cap Derby, Wing cap Derby, Toe cap Derby with facing and Foxing , Wing cap Derby with Facing and Counter, Derby with zimped edges.

UNIT5

5. **Designing and pattern development of Oxford style.**

Development of Oxford standard, Upper shell, Upper pattern, Development of lining shell, Lining pattern for Toe cap Oxford, Wing cap Oxford, Toe cap Oxford with facing and Foxing , Wing cap oxford with facing and Counter, oxford with zimped edges.

UNIT 6

6. **Design` and pattern development of Derby, oxford style variations.**

Development of Derby Upper shell, Upper pattern, Development of lining shell, Lining pattern for Derby variation style 1, 2, 3, Development of Oxford standard, Upper shell, Upper pattern, Development of lining shell, Lining pattern for Oxford variation style 1,2,3

Specific Learning Outcomes

Upon completion of the course the student should be able to

1. History of Footwear Fashion, Basic styles of Footwear.

1.1 Explain historical details of Footwear.

1.2 Explain when right and lefts were made

1.3 Evolution of Footwear fashion in Greek and Roman Periods

1.4 Relation between footwear styles and social positions.

1.5 Explain the laws pertaining to the footwear fashion in Greek and Roman period.

1.6 Footwear fashion in American Colonies of 17 th century.

1.7 Explain oriental footwear fashions.

1.8 Explain five basic elements which a shoe maker analyses before it becomes a popular fashion.

1.9 Illustrate the influence of Footwear shape on Fashion.

1.10 Illustrate the influence of Design on Footwear fashion.

1.11 Illustrate the influence of Materials on Footwear fashion.

1.12 Illustrate the influence of colour on Footwear fashion.

1.13 Illustrate the influence of Ornamentation and treatment on Footwear fashion.

1.14 Explain Trickledown theory.

1.15 Explain Trickle up theory.

1.16 Explain cyclic nature of fashion.

1.17 Classify footwear as 7 basic styles.

1.18 Describe the characteristics of Derby style.

1.19 Describe the characteristics of Oxford style.

1.20 Describe the characteristics of Slip on style.

1.21 Describe the characteristics of Moccasin style.

1.22 Describe the characteristics of Court shoe style.

1.23 Describe the characteristics of Boot style.

1.24 Describe the characteristics of Sandal style.

2. Mean form preparation.

2.1 Describe the following hand tools used in Footwear designing.

2.1.1 Scotch tape.

2.1.2 Cutting mat.

2.1.3 Shoe measuring tape.

2.1.4 Divider.

2.1.5 Pattern sheet.

2.1.6 Roller.

2.1.7 Glue stick.

2.1.8 knife.

2.1.9 Pencil.

2.1.10 Scale.

2.1.11 Scissors.

2.2 Define mean form.

2.3 Distinguish last and mean form.

2.4 Distinguish inside form, Outside form, Mean form.

2.5 Explain how to make Mean form from the Scotch tape.

2.6 Explain how to make Mean form by Vacuum form method.

2.7 Explain how to make Mean form by Slotted Paper method.

3. Designing and pattern development of Open type footwear.

3.1 Explain how to Develop Upper and lining Patterns for Single Piece Sandal.

3.2 Explain how to Develop Upper and Lining Patterns for Two piece Sandal.

3.3 Explain how to Develop Patterns for Sandal with Vamp , Buckled Counter Strap .

4. Designing and pattern development of Derby style.

4.1 Explain how to develop derby base from the mean form.

4.2 Explain how to develop derby upper shell from the Derby base.

4.3 Explain how to develop patterns for various upper components of derby shoe from derby shell.

4.4 State different springs to be given to standard /shell.

4.5 Explain how to develop derby lining shell from the Derby Upper shell.

4.6 Explain how to develop patterns for various lining components of derby shoe from lining shell.

4.7 Explain how to develop Toe cap Derby Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

4.8 Explain how to develop Wing cap Derby Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

4.9 Explain how to develop Toe cap, Facing and Foxing Derby Upper shell, lining shell, Upper patterns, Lining Patterns from the given mean form.

4.10 Explain how to develop Wing cap , Facing and Counter Derby Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

4.11 Explain how to develop Wing cap , Facing and Counter Derby with zimped edges Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

5. Designing and pattern development of Oxford style

5.1 Explain how to develop Oxford standard from the mean form.

5.2 Explain how to develop Oxford upper shell.

5.3 Explain how to develop patterns for various upper components of Oxford shoe from Oxford Upper shell.

5.4 State different springs to be given to standard /shell.

5.5 Explain how to develop Oxford lining shell from the Oxford upper shell.

5.6 Explain how to develop patterns for various lining components of Oxford shoe from lining shell.

5.7 Explain how to develop Toe cap Oxford Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

5.8 Explain how to develop Wing cap Oxford Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

5.9 Explain how to develop Toe cap, Facing, Foxing Oxford Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

5.10 Explain how to develop Wing cap , Facing, Counter Oxford Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

5.11 Explain how to develop Wing cap , Facing, Counter Oxford with zimped edges Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

6. Design` and pattern development of Derby, Oxford style variations.

6.1 Explain how to develop Derby style Variation-1 Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

6.2 Explain how to develop Derby style variation-2 Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

6.3 Explain how to develop Derby style variation-3 Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

6.4 Explain how to develop Oxford style variation style -1 Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

6.5 Explain how to develop Oxford style variation style -2 Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

6.6 Explain how to develop Oxford style variation style -3 Upper shell, Lining shell, Upper patterns, Lining Patterns from the given mean form.

Suggested Student Activities

Each student should do any one of the following type activity or any other similar activity related to the course and before conducting, get it approved from concerned Teacher and HOD.

ACTIVITIES

1. Collect samples, sketches as an example for various fashion concepts.
2. Survey of Fashion magazines for new footwear styles.
3. Survey of new footwear styles in Net.
4. Showing the new designs to peers and take their opinion.

Reference Books

1. Lectures notes on Footwear Designing –IqbalHussain
2. Manual of shoe making - Clarks.
3. Text book of Footwear manufacture - H.J.Thronton.

4. Introduction to the modern Footwear Technology - B. Venkatappaiah.
5. Shoe designing-CLRI.
6. Shoe designing –ARS-ITALY.

Shoe designing –Pattric

Suggested E-Learning references

http://icanmakeshoes.com>shoemaking.
2. **www.simpleshoemaking.com**
3.http://shoemakingcoursesonline.com

CO PO Mapping Matrix

Course outcomes		CL	Linked PO	Teaching periods
CO1	**Illustrate the influence of 5 basic elements on Fashion, Fashion cycles**	**U**	**3,7,10**	**8**
CO2	**Prepare Mean form for given Last.**	**U/A**	**3,4**	**8**
CO3	**Designing and develop the patterns for Open type footwear.**	**U/A**	**4,5,7**	**10**
CO4	**Designing and develop the patterns for Derby style.**	**U/A**	**4,5,6,10**	**10**
CO5	**Designing and develop the patterns for Oxford style**	**U/A**	**4,5,6,10**	**10**
C06	**Designing and develop the patterns for Derby, Oxford style variations.**	**A**	**5, 9,10**	**14**

MID SEM-I EXAM

S.No	Unit Name	R	U	A	Remarks
1	Unit-I	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-II	3, 4	6(a) 6(b)	8(a) 8(b)	
Total Questions		4	4	4	

MID SEM –II EXAM

S.No	Unit Name	R	U	A	Remarks
1	Unit-III	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-IV	3, 4	6(a) 6(b)	8(a) 8(b)	
Total Questions		4	4	4	

Semester End Examination

Sl No	Unit No.	Questions to be set for SEE				Remarks
		R		U	A	
1	I	4	1	9(a)	13(a)	
2	II					
3	III		2	10(a)	14(a)	
4	IV					
5	V		3	5, 6	9(b) 11(a) 11(b)	13(b) 15(a) 15(b)	
6	VI			7,8	10(b) 12(a) 12(b)	14(b) 16(a) 16(b)	
Total Questions		8		8	8	

Legend:	Remembering (R)	1 Mark
	Understanding (U)	3 Marks
	Application (A)	5 Marks

BOARD DIPLOMA EXAMINATIONS (C-18)
MID SEM-I
THIRD SEMESTER EXAMINATION

Subject Name : Elementary Footwear Designing

Subject Code : 18FW-302C
[Time Duration : 1 Hour] [Total marks :20]

PART-A

Answer ALL Questions and each question carries 01 marks 4 x 1= 4 marks

1. Explain Footwear Fashion in Greek period.
2. Explain when Right and Left Footwear were made.
3. Explain Shoe Measuring Tape.
4. Explain the use of Roller.

PART-B

Answer any TWO Questions s and each question carries 03 marks 2 x 3 = 6 marks

5. a) With example explain Trickledown Theory of Fashion.

(OR)

b) Identify the example and explain Trickle up Theory of Fashion.

6. a) Distinguish last and Mean form.

(OR)

b) Identify the properties required for the scotch tape to be used in the mean forme preparation.

PART-C

Answer any TWO Questions and each question carries 05 marks 2 x 5= 10 marks

7. a) Prove that any Footwear Style belongs to one of the Seven basic styles of Footwear.

(OR)

b) Illustrate the influence of 5 basic elements on Footwear Fashion.

8. a) With scoth tape Explain how you will make outside equivalent of Last.

(OR)

b) Explain how to combine Outside form and Inside form to make Mean forme.

BOARD DIPLOMA EXAMINATIONS (C-18)
MID SEM-II
THIRD SEMESTER EXAMINATION

Subject Name : Elementary Footwear Designing

Subject Code : 18FW-302C
[Time Duration : 1 Hour] [Total marks :20]

PART-A

Answer ALL Questions and each question carries 01 marks

4 x 1= 4 marks

1. Draw the sketch of the Shell of the Single Piece Sandal.
2. How much Lasting allowance we have to give to sandal Uppers.
3. Draw the neat sketch of Derby Lining shell.
4. Write the formulae for the back height of the shoe.

PART-B

Answer any TWO Questions s and each question carries 03 marks

2 x 3 = 6 marks

5. a) Explain how to develop Upper patterns for single piece Sandal.

(OR)

b) Explain how to develop Lining Patterns for Single Piece Sandal.

6. a) Explain how to develop Derby Base from the Mean forme.

(OR)

b) Explain how to develop Derby Lining shell form the Derby Upper Shell.

PART-C

Answer any TWO Questions and each question carries 05 marks

2 x 5= 10 marks

7. a) Design and Develop Patterns for Sandal with Two straps.

(OR)

b) Design and Develop Patterns for Sandal with Vamp, Buckled Counter Strap.

8. a) Design and Develop Patterns for Derby with Toe cap.

(OR)

ınd Develop Patterns for Derby with Wing cap, Facing and Foxing.

C18-FW-302 C

BOARD DIPLOMA EXAMINATION, (C-18)

Diploma in Leather Goods & Footwear Technology III SEMESTER EXAMINATION

Elementary Footwear Designing

Time : 2 Hours] [Total Marks: 40

PART-A

08X01=08

Instructions : 1. Answer **ALL** questions.

2. Each question carries **ONE** mark.

1. Write the relationship between Footwear Style and Social Position.
2. Draw the shell of Two Piece Sandal.
3. Explain how to Develop Oxford Standard from the Mean form.
4. Write the formulae for the Back height of a shoe.
5. Draw Oxford lining shell .
6. Explain how to develop Vamp Lining pattern form the Oxford Lining shell.
7. Draw the sketch of Upper shell of Derby style Variation-1.
8. Explain how to develop the Derby style variation -1 Quarter from the Upper Shell.

PART-B

04X03=12

Instructions : 1. Answer any **FOUR** questions.

2. Each question carries **THREE** marks.

9. (a) Explain the cycle nature of the fashion.

(or)

9. (b) Explain how to develop Oxford Quarter lining patterns from the Oxford Lining shell.

10. (a) Explain how to develop Toe cap Derby Upper shell from the Derby base.

(or)

10. (b) Explain how to develop Derby style variation -3 upper shell from the mean form.

11. (a) Explain how to develop Oxford Lining shell from the Oxford Upper shell.

(or)

11. (b) Explain how to develop Oxford Heel grip pattern from the Oxford Lining shell.

12. (a) Explain how to develop Derby Upper Patterns from Derby Style variation -3 Upper shell.

(or)

12. (b) Explain how to develop Oxford style variation -3 upper shell from the mean form.

PART-C

04X5=20

Instructions : 1. Answer any **FOUR** questions.

2. Each question carries **FIVE** marks.

13. (a) Explain how to develop Mean form for a given last by Scotch tape method.

(or)

13. (b) Explain how to develop Wing cap Oxford upper shell and Upper patterns from the Derby base.

14. (a) Explain how to develop Wing cap Derby upper shell and Upper patterns from the Derby base.

(or)

14. (b) Explain how to develop Derby style variation -2 Upper shell and upper patterns from the Derby base

15. (a) Explain how to develop Toe Oxford Upper shell and upper patterns form the Oxford standard.

(or)

15. (b) Explain how to develop Oxford with Facing and Foxing Upper shell and upper patterns form the Oxford standard.

16. (a) Explain how to develop Oxford style variation -2 Upper shell and upper patterns from the Oxford standard.

(or)

16. (b) Explain how to develop Oxford style variation -1 Upper shell and upper patterns from the Oxford standard.

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Basic Leather goods Fabrication Technology

Course Title :	**Basic Leather goods Fabrication Technology**	Course Code	**18FW-303C**
Semester	**III**	Course Group	**Core**
Teaching Scheme in Periods(L:T:P)	**3:1:0**	Credits	**3**
Methodology	**Lecture + Assignments**	Total Contact Hours :	**60Pds**
CIE	**60 Marks**	SEE	**40 Marks**

Rationale:
The objective of this course is to make student familiar materials used, design, develop patterns for small leather goods.

Pre requisites

Basic knowledge of Footwear materials, leather goods

Course Outcomes

CO1	Explain Leather Goods Industry effect on economy of India, Job opportunities in Leather Goods industries.
CO2	Classify leather goods based on utility
CO3	Classify leather goods based on method of manufacturer
CO4	Explain different Leathers, materials used in leather goods fabrication.
CO5	Explain the working principle of Machinery and Hand tools used in Leather goods fabrication.
CO6	Design and Develop the patterns for Small leather goods.

COURSE CONTENTS:

1. **Profile of Leather goods Industry.**
   Define Leather goods, need of leather goods, and growth of industry in India, various government policies for development of leather goods industry in India, incentive facilities provided by government of India, research and training facilities, institutions involved in growth of leather goods industry.

2. **Classification of leather goods based on utility and manufacture.**

   Classification of leather goods based on utility. ladies bags, small leather goods, solid leather goods, fancy leather goods, belts, sports leather goods, Upholstery leather goods, classification of leather goods based on method of manufacturing, cut edge articles, Turn edge articles, Turn over edge articles, stiffened articles, moulded articles, Box work.

3. **Selection of leathers, linings and materials for leather goods.**

   Different defects of leather, different types of leathers, Need of leather linings different types of leather linings, characteristics of different linings, non leather linings, grinderies, fittings and fasteners used in leather goods making.

4. **Hand tools and machinery used for leather goods.**

Cutting tools, various Carving and stamping tools, finishing tools various

Punching tools used in leather goods making, operating principles of

Clicking machine, splitting machine, strap cutting machine, sewing

achine, skiving machine.

5. Principle involved in making of Gusset, small leather goods.

Function of the gusset, types of gussets, running gusset, side wide gusset,

Continuous gusset, fabrication process of key case, coin purse, wallet,

Credit card case, cell phone case, combs case, circular hand bag, Thonging.

Specific Learning Outcomes

Upon completion of the course the student should be able to

1. Profile of Leather goods Industry.

1.1 Define Leather goods.
1.2 List the need of leather goods.
1.3 Explain government policy pertaining to the leather, footwear sector for development of leather goods industry in India.
1.4 Define foreign exchange.
1.5 State the need of foreign exchange to the country.
1.6 Give examples of industries that are earning foreign exchange.
1.7 Define import duty, Duty drawback.
1.8 What is income tax
1.9 What is tax exemption.
1.10 Explain different incentive and development facilities provided by government to encourage the leather product manufacturer.
1.11 List different institutions that are providing research and training facilities in leather, footwear sector.
1.12 Explain the activities of these institutions in the growth of leather goods industry.
1.13 Explain the Corporations like Council for leather exports role in growth of Leather, footwear sector.

2.0 Classification of leather goods based on utility.

2.1 Classify the leather goods based on utility.
2.2 Describe ladies bags.
2.3 Name different type of ladies bags like hand bag, shoulder bag.
2.4 Describe small leather goods.
2.5 Give examples for small leather goods like Key case, wallet.
2.6 Describe solid leather goods.
2.7 Give examples for solid leather goods like suitcase, Trunk case.
2.8 Describe fancy leather goods.
2.9 Give examples for fancy leather goods like Jewelery case, Tie case.
2.10 Describe belts.
2.11 Give examples for belts like Mens belt, Dog collar.
2.12 Explain sports leather goods.
2.13 Give examples for sports leather goods like Cricket ball, Football.
2.14 Describe Upholstery leather goods.
2.15 Give examples for upholstery leather goods.

3.0 Classification of leather goods based on Method of Manufacture.

3.1 Classify leather goods based on method of manufacturing.
3.2 Describe cut edge articles.
3.3 Give examples for cut edge articles like Key case.
3.4 Describe Turn edge articles.
3.5 Give examples for turn edge articles.
3.6 Describe Turn over edge articles.
3.7 Give examples for turn over edge articles Like Wallet.
3.8 Describe stiffened articles.
3.9 Give examples for stiffened articles.
3.10 Describe moulded articles.
3.11 Give examples for moulded articles like Camera case.
3.12 Describe box work.
3.13 Give examples for box work like Jewelery case.

4.0 **Selection of leathers, linings and materials for leather goods**.

4.1 List different defects of leather.
4.2 Write the reasons for above defects.
4.3 Explain the properties of the following leathers used in leather goods making.
- a. Goat leathers.
- b. Sheep leathers.
- c. Cow leathers.
- d. Buff leathers.
- e. Glazed kid leathers.
- f. Morocco leathers.
- g. Suede leathers.
- h. Upholstery leathers.
- i. Corrected grain leathers.
- j. Printed leather leathers.
- k. Napa leather.
- l. Brush off Leather.
- m. Burnished leather.
- n. Nubuck leather.
- o. Patent leather.
- p. Split leather.
- q. Oil pull up leather.
- r. Film coated leather.
- s. Milled leather.
- t. Zug grain leather.

4.4 Explain why we have to use lining in leather goods.
4.5 List different types of leather linings.
4.6 State the characteristics of leather linings.
4.7 List different types of non leather linings.
4.8 State the characteristics of non leather linings.
4.9 Describe following grinderies, fittings and fasteners used in leather goods making.
- a. Rivets.
- b. Press buttons.
- c. Zips.
- d. Locks.
- e. Fasteners.
- f. Buckles.
- g. Handles.
- h. Handle Holders.
- i. Studs.
- j. Hooks

k. Nails.
l. Laces.

4.10 Write the purpose of the above grinderies.
4.11 Write different materials with which above grinderies will be made.
4.12 Explain what ornamentation is.
4.13 Explain the purpose of Mock stitching.
4.14 List Different type of Reinforcements used in leather goods making.
4.15 Explain the suitability of different reinforcements for different type of Leather goods.

5.0 Hand tools and machinery used for leather goods.

5.1 Describe following cutting tools used in leather goods manufacture.
- 5.1.1 Bevel edge knife.
- 5.1.2 Skiving knife.
- 5.1.3 Adjustable strap cutter.
- 5.1.4 Hand knife.
- 5.1.5 Safety beveller.
- 5.1.6 Scissors.

5.2 Describe following Carving and stamping tools used in leather goods manufacture.
- 5.2.1 Swivel knife.
- 5.2.2 Camouflage.
- 5.2.3 Pear shader.
- 5.2.4 Beveller.
- 5.2.5 Veiner and shell tool.
- 5.2.6 Seeder.
- 5.2.7 Back grounding tool.

5.3 Describe following finishing tools used in leather goods manufacture.
- 5.3.1 Adjustable creaser.
- 5.3.2 Beveleze.

5.4 Describe following Punching tools used in leather goods manufacture.
- 5.4.1 Rotary punch.
- 5.4.2 Single point punch.
- 5.4.3 Oblong punch.
- 5.4.4 English point punch.

5.5 Describe following stitching tools used in leather goods manufacturing.
- 5.5.1 Stitching groover.
- 5.5.2 One prong thonging chisel.
- 5.5.3 Four prong thonging chisel.
- 5.5.4 Fid.
- 5.5.5 Lacing pliers.
- 5.5.6 Over stitch spacer.

5.6 Explain the operating principles of Clicking machine.
5.7 Explain the operating principles of splitting machine.
5.8 Explain the operating principles of strap cutting machine.
5.9 Explain the operating principles of sewing machine.
5.10 Explain the operating principles of skiving machine.

6.0 **Principle involved in making of Gusset, small leather goods.**

6.1. Explain the function of the gusset.
6.2. List different types of gussets.
6.3. Distinguish different type of gussets.
6.4. Describe running gusset.
6.5. Describe side wide gusset.
6.6. Describe continuous gusset.
6.7. Draw the patterns of key case.

6.8. Explain the fabrication process of key case.
6.9. Draw the patterns of coin purse.
6.10. Explain the fabrication process of coin purse.
6.11. Draw the patterns of wallet.
6.12. Explain the fabrication process of wallet.
6.13. Draw the patterns of credit card case.
6.14. Explain the fabrication process of credit card case.
6.15. Fabrication of Credit card case by Thonging.
6.16. Draw the patterns of cell phone case.
6.17. Explain the fabrication process of cell phone case.
6.18. Draw the patterns of comb case.
6.19. Explain the fabrication process of comb case.
6.20. Explain fabrication of Comb case by Thonging.
6.21. Draw the patterns of Ladies circular hand bag.
6.22. Explain the fabrication process of Circular hand bag.

Suggested Student Activities

Each student should do any one of the following type activity or any other similar activity related to the course and before conducting , get it approved from concerned Teacher and HOD.

ACTIVITIES

1. Collect samples, sketches as an example for various types of leather goods.
2. Collect various type of Leathers, Footwear Materials.
3. Practice Hand tools, Machineries used in leather goods fabrication.
4. Survey of Fashion magazines for new Leather goods styles.

REFERENCE BOOKS:

1. The complete hand book of Leather crafting Jame Co. Gramed. Robert E.Krieges Publishing company, Malabar, Floride.
2. Leather Craft by chris. H Groneman, Head Mechanical College of Teases Chas A Bermett Co Inc. Peoria, Illimois.
3. How to sew Leather suede by G.Phillips. W.Sehewlke, Macmillan, Newyork – 1979.

Suggested E-Learning references

1. http://icanmakeshoes.com>shoemaking.
2. **www.simpleshoemaking.com**
3. http://shoemakingcoursesonline.com

CO PO Mapping Matrix

Course outcomes		CL	Linked PO	Teaching periods
CO1	Explain Leather Goods Industry effect on economy of India, Job opportunities in Leather Goods industries.	**U**	**1,2**	**8**
CO2	Classify leather goods based on utility	**U/A**	**1,2**	**8**
CO3	Classify leather goods based on method of manufacturer	**U/A**	**1,2**	**8**
CO4	Explain different Leathers, materials used in leather goods fabrication.	**U/A**	**2,6**	**10**
CO5	Explain the working principle of Machinery and Hand tools used in Leather goods fabrication.	**U/A**	**3,4**	**10**
C06	Design and Develop the patterns for Small leather goods.	**A**	**4, 7,10**	**16**

MID SEM-I EXAM

S.No	Unit Name	R	U	A	Remarks
1	Unit-I	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-II	3, 4	6(a) 6(b)	8(a) 8(b)	
Total Questions		4	4	4	

MID SEM –II EXAM

S.No	Unit Name	R	U	A	Remarks
1	Unit-III	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-IV	3, 4	6(a) 6(b)	8(a) 8(b)	
Total Questions		4	4	4	

Semester End Examination

Sl No	Unit No.	Questions to be set for SEE				Remarks
		R		U	A	
1	I	4	1	9(a)	13(a)	
2	II					
3	III		2	10(a)	14(a)	
4	IV					
5	V		3	5, 6	9(b) 11(a) 11(b)	13(b) 15(a) 15(b)	
6	VI			7,8	10(b) 12(a) 12(b)	14(b) 16(a) 16(b)	
Total Questions		8		8	8	

Legend:	Remembering (R)	1 Mark
	Understanding (U)	3 Marks
	Application (A)	5 Marks

BOARD DIPLOMA EXAMINATIONS (C-18)

MID SEM-I
THIRD SEMESTER EXAMINATION

Subject Name : BASIC LEATHER GOODS FABRICATION TECHNOLOGY

Subject Code : 18FW-303C

[Time Duration : 1 Hour] **[Total marks :20]**

PART-A

Answer ALL Questions and each question carries 01 marks **4 x 1= 4 marks**

1. Define Leather goods.
2. List the need of Leather goods.
3. What is Tote bag?
4. What is Cosmetic bag?

PART-B

Answer any TWO Questions s and each question carries 03 marks **2 x 3 = 6 marks**

5. a) Explain the corporations like Council of Leather Exports role in growth of Leather, Footwear Sector.

(OR)

b) Name different Institutions that are providing research and training facilities in leather, Footwear sector.

6. a) With suitable examples explain Fancy Leather Goods.

(OR)

b) With suitable examples explain Shoe bag, Framed Bag.

PART-C

Answer any TWO Questions and each question carries 05 marks **2 x 5= 10 marks**

7. a) Explain how various incentives and development facilities provided by government will Augument the growth of Leather Sector.

(OR)

b) What is Foreign exchange and explain why India requires Foreign Exchange?

.

8. a) Identify and draw the sketches of Solid Leather Goods which you can see daily

(OR)

b) Develop Various Designs of Small Leather Goods.

BOARD DIPLOMA EXAMINATIONS (C-18)
MID SEM-II
THIRD SEMESTER EXAMINATION

Subject Name : BASIC LEATHER GOODS FABRICATION TECHNOLOGY

Subject Code : 18FW-303C

[Time Duration : 1 Hour] **[Total marks :20]**

PART-A

Answer ALL Questions and each question carries 01 marks **4 x 1= 4 marks**

9. Draw the block diagram of Turn Edge construction Method of Leather Goods Making.
10. Explain Turn Edge construction Method of Leather Goods Making.
11. What are Flay Cuts?
12. Briefly explain Tick marks.

PART-B

Answer any TWO Questions and each question carries 03 marks **2 x 3 = 6 marks**

13. a) Explain the Cut Edge construction Method of Leather Goods Making.

(OR)

b) Briefly explain the Limped, Semi Limped Articles.

14. a) Name and Explain different type of Leather Linings used in Leather Goods manufacturing.

(OR)

b) With suitable examples explain different type of locks used in leather goods manufacturing.

PART-C

Answer any TWO Questions and each question carries 05 marks **2 x 5= 10 marks**

15. a)Explain how you can make Suit case by Box work construction method of Leather goods making.

(OR)

b) Explain how you can make Camera case by Moulded construction method of Leather goods making.

16. a) Suggest different type of Leathers for different type of Leather goods.

(OR)

b) Explain how to make Leather goods attractive by mock stitching and Ornamentation

C18-FW-303C

BOARD DIPLOMA EXAMINATION, (C-18)
Leather Goods & Footwear Technology BRANCH – III SEMESTER EXAMINATION

BASIC LEATHER GOODS FABRICATION TECHNOLOGY

Time : 2 Hours] [Total Marks: 40

PART-A

08X01=08

Instructions : 1. Answer **ALL** questions.

2. Each question carries **ONE** mark.

9. What is Duty draw back?
10. Name different synthetic linings used in leather goods manufacturing.
11. Explain the Function of the gusset.
12. Explain why india requires foreign exchange.

5. Explain the following hand tools used in leather goods manufacturing.

a. Safety beveller.

b. Adjustable Strap cutter.

6. Explain English point punch, Round Punch.

7. With the help of the neat sketch explain Running Gusset.

8. Draw the neat sketch of Ladies circular hand bag.

PART-B

04X03=12

Instructions : 1. Answer any **FOUR** questions.

2. Each question carries **THREE** marks.

9. (a) Name different Institutions that are providing Training in the Field of Leather Goods and Footwear Sector.

(or)

9. (b) Explain the operating principle of the Strap cutting machine..

10. (a) With suitable examples explain different type of Rivets used in leather goods manufacturing.

(or)

10. (b) Explain how to develop the patterns for the Comb case.

11. (a) Briefly explain the Working Principle of Splitting Machine.

(or)

11. (b) Explain One Prong, Four Prong Thonging Chisels.

12. (a) Briefly Explain Side wide Base Gusset.

(or)

12. (b) Explain how to develop Patterns for Comb case.

PART-C

04X5=20

Instructions : 1. Answer any **FOUR** questions.

2. Each question carries **FIVE** marks.

13. (a) Explain how Government policy, incentives provided by the government will help the growth of Leather product industries.

(or)

13. (b) Suggest carving design on leather and explain how you will carve the suggested design on leather by using different carving tools.

14. (a) Explain how you will fabricate case for High speed sports camera by using moulded construction method of Leather goods manufacturing.

(or)

14. (b) Design and explain how to develop Patterns, fabrication procedure for a case in which you can keep your Currency, Debit cards, etc.

15. (a)Explain how you will use different type of Cutting tools for different situations.

(or)

15. (b) With example explain how you will use different type of Punches for different type of situations.

16. (a) Design and explain how to develop the patterns, fabrication procedure for Case in which you can keep your smart phone.

(or)

16. (b) Design and explain how to develop the patterns, fabrication procedure for Case in which you can keep your coins.

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Footwear Upper Fabrication Technology

Course Title :	**Footwear Upper Fabrication Technology**	Course Code	**18FW-304C**
Semester	**III**	Course Group	**Core**
Teaching Scheme in Periods(L:T:P)	**3:1:0**	Credits	**3**
Methodology	**Lecture + Assignments**	Total Contact Periods :	**60Pds**
CIE	**60 Marks**	SEE	**40 Marks**

Rationale:
The objective of this course is to make students to undertake fabrication of Footwear upper by using various methods, tools and machinery.

Pre requisites

Basic knowledge of Introductory Leather Products Technology, Basic Footwear Fabrication Technology

Course Outcomes

CO1 :	Analyzing Anatomy of Foot , identify bones, joints and arches of foot
CO2 :	Identify various Shoe sizing systems, convert sizes from one sizing system to other
CO3 :	Classify Lasts, Distinguish human foot and last
CO4 :	Explain Clicking operation, methods of cutting, qualities required for a good clicker
CO5 :	Identify various Closing operations, and specify the objectives of all operations
CO6 :	Demonstrate Fabrication process of Open type Footwear

COURSE CONTENT

UNIT 1

Anatomy of Foot **Duration: 2 Periods (L: 09– T:03)**

Introduction to Bones, joints & Arches of foot -Functions of feet-Development of foot from infancy to adult hood-Various abnormalities of feet-Hallux Valgus &Rigidus, Hammer, clawed, mallet toe, Metatarsalgia-Reasons for foot problems- Introduction to Gait Analysis

UNIT2

Sizing Systems **Duration:08 Periods (L: 06– T:08)**
English Sizing system- American size system-French sizing system-Mondo point sizing system-Fittings-Multi fittings- Size conversion from English size to Paris point-Size conversion problems from Paris point to English size.

UNIT3

Lasts **Duration: 08 Periods (L: 06– T:02)**

Importance Of Lasts- Different Parts of Lasts- materials used for making lasts-Classification of Last – Measurements of Last- Selection of last for different application- Comparison of Last & Feet

UNIT 4

Clicking **Duration : 10 Periods (L: 08– T:02)**

Definition-Methods of Clicking-Qualities required for a clicker-Characteristics and variations in Leather, Fabrics-Economic layout of patterns-Principles of cutting-Estimation of material requirement by using Russ & small method-Conditioning and storing of knives-Machines and tools used in clicking-Clicking of bottom components.

UNIT5

Closing **Duration:14 Periods (L: 10– T:4)**

Sequence of operations in closing room-Checking and identification-Stitch markings-Press punching-Perforating and Embossing-Splitting and skiving-Types of skives-Reinforcing-Edge treatment objectives-Different types of Edge treatments-Stitching-Parts of Needle-Types of seams-functional seams-Boxing, barring-Selection of threads-Needles for specific seams-Classification of sewing machines-Purpose of Flat bed, post bed, cylindrical bed sewing machines- Eyeleting-methods of eyeleting

UNIT 6

Fabrication of Simple Open type Footwear **Duration: 08 Periods (L:06 – T:2)**

Different types of footwear-characteristics of Chappal- characteristics of Sandal- hand tools used in open type footwear fabrication- machines used in open type footwear fabrication- sequence of operations involved in fabrication of Chappal, Sandal.

Specific Learning Outcomes

Upon completion of the course the student should be able to

1.0 Anatomy of Foot

1.1 Know types of bones.

1.2 Identify bones of human foot.

1.3 know how bones are grouped as
(1) Tarsals (2) Meta tarsals (3) Phalanges

1.4 explain following joints of foot.
(1) Ankle joint (2) Subtalar joint (3) Mid tarsal joint

(4) Metatarsophalangel joint (5) Inter phalangel joint.

1.5 List the various arches of foot and explain their importance / purpose.

1.6 Explain how foot will develop from infancy to adult hood in following aspect.
1.6.1 Ossification (growth of bones)
1.6.2 Change in proportion.
1.6.3 Change in arches.

1.7 Mention functions of feet.

1.8 List and explain characteristics of Foot troubles like.

1.8.1 Hallux valgus.
1.8.2 Hallux rigidus.
1.8.3 Hammer toe
1.8.4 Clawed toe
1.8.5 Mallet toe
1.8.6 Metatarsalgia
1.8.7 Pes planus
1.8.8 Pes cavus
1.8.9 Valgus ankle
1.8.10 Pronation
1.8.11 Foot skin troubles.
1.8.12 Troubles of Arches.

1.9 State reasons for above problems.
1.10 Define Gait and Explain phases of gait.

2.0 Sizing System

2.1 know the following shoe sizing systems

A. English sizing system.
B. French sizing system(Paris Points)
C. American sizing system.
D. Mondo Point Sizing system.

2.2 Explain size increments of above systems.
2.3 State the importance and use of each sizing systems.
2.4 Convert size from one sizing system to another.
2.5 Explain the importance of fitting in sizing system.
2.6 Identify the fittings existed in below sizing systems.

A. English Sizing system.
B. French sizing system.
C. American sizing system.
D. Mondo point sizing system.

2.7 Explain multifittings

3.0 Lasts

3.1 Define the term Last

3.2 State the importance of Last

3.3 List the different parts of last

3.4 State various materials used for fabrication of lasts

3.5 Classify the lasts based on its method of fabrication of last

3.6 State the measurements of last

3.7 List the parameters to be consider while selecting last

3.8 Distinguish Human foot and Last

4.0 Clicking

4.1 Identify stretch directions, characteristics of leather, synthetic materials.

4.2 Explain quality requirement of components of footwear.

4.3 Lay components on leather keeping in view of stretch requirement of components and stretch of leather.

4.4 Interlock patterns so as to have efficient and economic layout of patterns for cutting

4.5 Identify different methods of cutting.

4.6 Distinguish Machine clicking and Hand clicking.

4.7 Explain in what conditions Machine cutting is suitable and in what conditions Hand cutting is suitable.

4.8 Know the Qualities required for a clicker, principles of cutting

4.9 Calculate consumption by using Russ and small method.

4.10 Mention precautions to be taken for cutting knives.

4.11 Explain know how to store - condition the knives

4.12 Explain method of cutting by using following machines

(1) Travelling Beam cutting machine its uses.
(2) Swing arm cutting machine and its uses.
(3) Laser cutting machine

4.13Know cutting of synthetic material, bottom components like soles and in soles.

5.0 Closing

5.1 Explain the purpose, importance and method (different methods) of doing following operation.

5.1.1 Checking and identification.
5.1.2 Stitch marking
5.1.3 Press punching and perforation.
5.1.4 Embossing.

5.2 Describe different types of skiving.

5.3 Explain importance, purpose, need, method, of each type of skiving like.

(1) Raw edge skiving
(2) Folded skiving
(3) Under lay skiving (lap skiving)
(4) Lasting skiving
(5) Corner skiving

5.4 Explain the objectives of reinforcements used in footwear fabrication

5.5 Identify different materials used as reinforcements

5.6 Explain method, importance of following edge treatments

(1) Raw edge (2) Burnishing (3) Edging (4) Folded edge

(5) Form folded edge (6) French - bound edge (7) English Binding

(8) Bagged top line

5.7 Identify the Parts of the Needle and explain how lock stitch and chain stitch will be formed.

5.8 Explain the functions, importance of following seams.

(1) Closed seam (2) Silked seam (3) Brooklyn seam

(4) Lapped seam (5) Butted seam (6) Welted seam

(7) Piped seam (8) Open seam (9) Bonded seam

(10) Welded seam (11) Moccasin seam

5.9 Explain the importance and method of special functional seams like boxing, baring.

5.10 Explain length and weight numbering of threads and classify needles based on its point

5.11 Classify Sewing machines based on work bed, number of needles, needle bar Movement and type of stitch formation

5.12 Explain specific purpose of flatbed, post bed, cylinder bed machines

5.13 Explain different methods of eye letting operations - machinery used.

6.0 Fabrication of simple open type footwear.

6.1 Should know what type of footwear will be classified as open type.

6.2 State the characteristics of Chappal

6.3 State the characteristics of Sandal

6.4 Identify the hand tools used in open type footwear fabrication

6.5 list various machines used in open type footwear fabrication

6.6 List and Explain sequence of operations for Chappal.

6.7 Identify and explain sequence of operations for sandal fabrication.

Suggested Student Activities

ACTIVITIES

5. Prepare Anatomy of foot skeleton chart

1. Survey of shoe sizes of different students in college

2. Prepare fitting and multi fitting charts for English, French sizing system sizes.

3. Collect different types of leathers used for making of shoe uppers, needles and threads used in footwear upper fabrication.

4. Collection of various styles of open footwear.

5. Watch Clicking methods videos and prepare a report on Laser clicking method.

Reference Books

1. Manual of shoe making - Clarks.
2. Text book of Footwear manufacture - H.J.Thronton.
3. Introduction to the modern Footwear Technology - B. Venkatappaiah.
4. Lectures notes on Footwear Technology - SomanathGanguly. (Series of Articles in JILTA)

Suggested E-Learning references

1.http://icanmakeshoes.com>shoemaking.
2**. www.simpleshoemaking.com**
3.http://shoemakingcoursesonline.com

CO PO Mapping Matrix

On Successful completion of the course, the student will be able to attain the following Course Outcomes (COs):

Course Outcome		CL	Linked PO	Teaching Periods
CO1	Analyzing Anatomy of Foot , identify bones, joints and arches of foot	R/U	1,5	12
CO2	Identify various Shoe sizing systems, convert sizes from one sizing system to other	R/U	1,2	08
CO3	Classify Lasts, Distinguish human foot and last	U/A	2,3	08
CO4	Explain Clicking operation, methods of cutting, qualities required for a good clicker	U/A	2,3	10
CO5	Identify various Closing operations, and specify the objectives of all operations	R/U/A	2,3,4,6	14
CO6	Demonstrate Fabrication process of Open type Footwear	U/A	2,3,10	08

CO/PO mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	Mapped POs
CO1	✓				✓						
CO2	✓	✓									
CO3		✓	✓								
CO4		✓	✓								
CO5		✓	✓	✓		✓					
CO6		✓	✓							✓	

MID SEM-I EXAM

S.No	Unit Name	R	U	A	Remarks
1	Unit-I	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-II	3, 4	6(a) 6(b)	8(a) 8(b)	
Total Questions		4	4	4	

MID SEM –II EXAM

S.No	Unit Name	R	U	A	Remarks
1	Unit-III	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-IV	3, 4	6(a) 6(b)	8(a) 8(b)	
Total Questions		4	4	4	

Semester End Examination

Sl No	Unit No.	Questions to be set for SEE				Remarks
		R		U	A	
1	I	4	1	9(a)	13(a)	
2	II					
3	III		2	10(a)	14(a)	
4	IV					
5	V		3 5, 6	9(b) 11(a) 11(b)	13(b) 15(a) 15(b)	
6	VI		7,8	10(b) 12(a) 12(b)	14(b) 16(a) 16(b)	
Total Questions		8		8	8	

Legend:	Remembering (R)	1 Mark
	Understanding (U)	3 Marks
	Application (A)	5 Marks

BOARD DIPLOMA EXAMINATIONS (C-18)
MID SEM-I
THIRD SEMESTER EXAMINATION

Subject Name : Footwear Upper Fabrication Technology

Subject Code : 18FW-304C

[Time Duration : 1 Hour] **[Total marks :20]**

PART-A

Answer ALL Questions and each question carries 01 marks **4 x 1= 4 marks**

1. State Various arches of human foot.
2. What is gait?
3. Define fitting.
4. What is Shoe size?

PART-B

Answer any TWO Questions s and each question carries 03 marks **2 x 3 = 6 marks**

5. a) Identify various joints present in human foot.

(OR)

b) Explain ossification process.

6. a) Identify various shoe size systems and explain Continental sizing system.

(OR)

b) Explain Mondo point shoe sizing system.

PART-C

Answer any TWO Questions and each question carries 05 marks **2 x 5= 10 marks**

7. a) Draw the neat sketch of human foot skeleton and explain various bones of foot.

(OR)

b) Classify various troubles of foot due to toe damage and mention its characteristics.

8. a) Find the Paris point equivalent to the English size 8 (Adults).

(OR)

b) Differentiate English size system and American size system.

BOARD DIPLOMA EXAMINATIONS (C-18)
MID SEM-II
THIRD SEMESTER EXAMINATION

Subject Name : Footwear Upper Fabrication Technology

Subject Code : 18FW-304C

[Time Duration : 1 Hour] **[Total marks :20]**

PART-A

Answer ALL Questions and each question carries 01 marks **4 x 1= 4 marks**

1. State Various materials used for making last.
2. What is Last?
3. Define Clicking.
4. What is warp cutting of synthetics.

PART-B

Answer any TWO Questions s and each question carries 03 marks **2 x 3 = 6 marks**

5. a) Identify various important parts of last.

(OR)

b) Explain various measurements of last.

6. a) Explain Classification of leathers based on its source of animal origin.

(OR)

b) Identify essential qualities required for a good clicker.

PART-C

Answer any TWO Questions and each question carries 05 marks **2 x 5= 10 marks**

7. a) Draw the neat sketches of various types of lasts and explain their uses.

(OR)

b) Differentiate human foot and last.

8. a) Examine the advantages and disadvantages of machine clicking.

(OR)

b) Select suitable portion of leather used for cutting various shoe upper parts such as toe cap, vamp, quarters and tongues.

C18-FW-304C

BOARD DIPLOMA EXAMINATION, (C-18)
LEATHER GOODS & FOOTWEAR TECHNOLOGY
III SEMESTER EXAMINATION
FOOTWEAR UPPER FABRICATION TECHNOLOGY

Time : 2 Hours] [Total Marks: 40

PART-A

08X01=08

Instructions : 1. Answer **ALL** questions.

2. Each question carries **ONE** mark.

1. Define anatomy of foot.
2. List various materials used for making lasts.
3. Name various machines used for shoe upper components cutting.
4. Draw the neat sketch of hinged last.
5. Define seam.
6. What is Splitting?
7. List various machines used in open type footwear fabrication.
8. Draw the neat sketch of Sandal and label its parts.

PART-B

04X03=12

Instructions : 1. Answer any **FOUR** questions.

2. Each question carries **THREE** marks.

9. (a) Estimate the nearest British Size of Paris point 42 .
(or)
9. (b) Explain objectives of reinforcements used in shoe.

10. (a) Explain the principles of cutting.
(or)
10. (b) Identify various machines used in open type footwear fabrication.

11. (a) Explain various identification marking methods.
(or)
11. (b) Differentiate open seam and closed seam.

12. (a) Differentiate Chappal and sandal with neat sketches
(or)
12. (b) Explain method of finishing of open type footwear.

PART-C

04X5=20

Instructions : 1. Answer any **FOUR** questions.

2. Each question carries **FIVE** marks.

13. (a) Classify various troubles of foot and mention the characteristics of toe troubles.
(or)
13. (b) Prepare the flow chart for various upper making operations involved in footwear Upper fabrication.

14. (a) Draw the neat sketch of hide , label its parts and mention its stretch and tightness directions.
(or)
14. (b) Classify open type footwear with neat sketches.

15. (a) Classify the sewing machines based on number of needles, shape of work bed and type of stitch formation.
(or)
15. (b) Draw the neat sketches of various types of edge treatments and specify the objective of each treatment.

16. (a) Prepare the detailed process flow chart for Sandal fabrication.
(or)
16. (b) Prepare list of quality parameters to be consider while assessing the quality of Fabricated open type footwear.

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LEATHER GOODS AND FOOTWEAR MATERIALS

Course Title :	**LEATHER GOODS AND FOOTWEAR MATERIALS**	Course Code	**18FW-305C**
Semester	**III**	Course Group	**Core**
Teaching Scheme in Periods(L:T:P)	**3:1:0**	Credits	**3**
Methodology	**Lecture + Assignments**	Total Contact Hours :	**60Pds**
CIE	**60 Marks**	SEE	**40 Marks**

Rationale:
The objective of this course is to make student to study above Footwear materials.

Pre requisites

Basic knowledge of parts of Footwear, Footwear fabrication process.

Course Outcomes

CO1	Explain different type of Leathers used in Footwear Fabrication.
CO2	Explain different type of synthetic materials used in Footwear Fabrication.
CO3	Explain different type of finishing materials used in Leather goods manufacturing.
CO4	Explain different type of Grinderies used in Leather goods manufacturing.
CO5	Explain different type of Bottoming materials used in Leather goods manufacturing.
CO6	Explain different type of Adhesives used in Leather goods manufacturing.

COURSE CONTENT

UNIT 1

1. **Upper leathers.**
   Leathers – properties, Different type of leathers, Different Sources of leather, properties selection of Leather for Fabrications in Footwear.

UNIT 2

2. **Upper Materials.**
   Poromerics-Structure, Different layers, Materials with Leather like appearance, properties different type of poromerics – Characters of poromerics, Comparison of poromerics and leather.

Course Outcomes

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Fabrics-Classification of Fabrics – Textile Fabrics – yarn classification – yarn Fabrics – differences uses of Fabrics in Footwear. Woven, Non Woven, Knitted, Coated fabrics, knitted footwear.

UNIT 3

3. **Finishing Materials.**

Cleaners, conditioner, fillers, dressings –purpose, materials used. Different type of waxes,

UNIT 4

4. **Grinderies.**

Different fittings, fasteners, grinderies used in leather goods and footwear, materials used for fittings, fasteners, grinderies, ornamentation, decorative fittings.

UNIT 5

5. **Bottoming Materials.**

Natural soling materials-Leather Soles, Rubber, Properties – Draw backs – Crape rubber , Un vulcanised rubber, properties of Natural soling materials, Vulcanizing process, Superior properties of Vulcanized Rubber.

Synthetic Soling Materials-Thermo setting Plastics, Thermo plastics, properties examples – composition and properties of different synthetic soling materials like P.V.C, P.U, T.P.R, E.V.A, M.C.R, S.B.R, Nylons, carbon fibre plates.

Insoles -Different insole materials , composition of insole materials ,properties

Bottom filling agents-Definition, Need of Bottom filling agents, different filling materials and properties.

Wood and metal-Different types of wood , uses of wood as sole, heel, last – shanks, materials, properties required.

Heels-Different materials used in Heel making.

UNIT 6

6. **Components.**

Adhesives-Definition, Classification ,Types – Composition properties –Criteria for Selection of Adhesives

Threads-Classification, types of threads, properties – Selection of threads – Threads count system – Ticket number –

Specific Learning Outcomes

Upon completion of the course the student should be able to

1.0 Upper leathers.

2.1 Explain the qualities required for an upper material.

2.2 Explain following properties of leather which makes leather best upper material.

a. Strength and stretch
b. Elasticity and plasticity.
c. Permeability, foot comfort
d. Flex resistance
e. Heat resistance
f. Water resistance

g. Surface performance
h. Ease of working.

2.3 Identify Stretch and Tightness direction on leather.
2.4 Identify the Characteristics and variation in quality in different areas of leather.
2.5 Explain the reasons for variation in quality in different areas of leather.
2.6 Identify thickness variation in different areas of leather.
2.7 Explain the reasons for thickness variation in different areas of leather.
2.8 Identify colour variation in different areas of leather.
2.9 Explain the reason for the colour variation in different areas of leather.
2.10 List different sources of leather.
2.11 Classify leather based on sources of leather.
2.12 Distinguish and explain the properties of following leathers used in footwear manufacturing.

a. Calf leather
b. Side leather.
c. Full grain leather.
d. Corrected grain leather.
e. Split leather.
f. Film coated leather.
g. Embossed/Printed leather.
h. Fur leather.
i. Patent leather.
j. Suede leather.
k. Nubuck leather.
l. Oil pull up leather.
m. Glazed kid leather.
n. Burnished leather.
o. Brush off leather.
p. Banwar leather.
q. Kattai leather.
r. Milled leather.
s. Jug grain leather.
t. Nappa leather.

2.0 Upper materials

2.1 Define poromerics.
2.2 State different materials used in poromerics.
2.3 Describe the structure of poromerics.
2.4 Explain the general properties of poromerics.
2.5 Compare poromerics and leather with respect of

a. Strength, stretch.
b. Uniformity and continuity.
c. Easy of Skiving, Stitching operations.
d. Easy of folding operation.

e. Easy of Lasting, Sole attaching finishing operations.
f. Flex resistance.
g. Comfort and water vapour permeability.
h. Abrasion resistance, Durability.

2.6 Classify the fibers.
2.7 Classify Natural fibers.
2.8 Classify Synthetic fibers.
2.9 Explain the properties of following natural fibers.
a. Cotton.
b. Wool.
c. Jute.
d. Silk.
2.10 Explain the properties of following synthetic fibers.
a. Nylons
b. Poly ester.
c. Poly amide.
2.11 Distinguish fiber, Yarn, Thread, fabric.
2.12 Explain the classification of fabrics.
2.13 Describe Woven fabric, Knitted fabric, Non woven fabric, Coated fabric
2.14 Give examples for Woven fabric, Knitted fabric, Non woven fabric, Coated fabric
2.15 Explain New technology knitted uppers.
2.16 Explain Primeknit technology uppers.
2.17 Explain how primeknit technology uppers create zero wastages
2.18 Comparison of 3D printing and shoe knitting.
2.19 Define Reinforcement materials like toe puff and counter stiffeners.
2.20 Name the materials used in toe puff and stiffeners.
2.21 State the properties required for toe puffs.
2.22 State the properties required for stiffeners.
2.23 Explain the utility of fabrics in footwear ex: backers, toe puffs

3. Finishing Materials

3.1 List different finishing materials.
3.2 Explain why we have to clean the upper before upper finishing.
3.3 List different type of cleaners used in footwear finishing.
3.4 Identify what type of cleaner to be used for what type of leather.
3.5 Explain chemical composition of different type of cleaners.
3.6 Explain how to select the cleaner based on Leather finish.
3.7 State the objective of conditioning.
3.8 Explain different type of conditioners.
3.9 Explain the objective of Upper filling operations.
3.10 Explain different type of filler used in footwear finishing.
3.11 Explain the purpose of the dressing.
3.12 Explain the composition of the dressing materials.
3.13 Classify the Dressings.
3.14 List different type of waxes.
3.15 Explain the applications of different type of waxes.

4. Grinderies

4.1 Define grinderies.
4.2 Define Fitting.
4.3 Define Fastener.
4.4 List examples of fittings.

4.5 List examples of Fasteners.
4.6 Describe following grinderies used in footwear and leather goods manufacturing.

a. Rivets
b. Nails
c. 'D' & 'O' Rings
d. Zips
e. Laces
f. Straps fittings.
g. Handle Fittings.
h. Handle Holders.
i. Studs,
j. Hooks,
k. Eyelets.
l. Locks.
m. Buckles.

4.7 Name the materials used for making of above grinderies.
4.8 Explain the specific purpose of the above grinderies.
4.9 Define Decorative fitting.
4.10 List examples of Decorative fittings.
4.11 Define Ornamentation.

5 Bottoming materials.

5.1 Distinguish Leather, Synthetic sole materials.

5.2 Explain the properties of Vegetable tanned leather soles.

5.3 Explain the properties of Chrome tanned leather soles.

5.4 Write the properties of Natural Rubber.

5.5 State the Draw backs of Rubber.

5.6 Explain Vulcanization process.

5.7 List the properties of Vulcanized rubber.

5.8 Explain why Vulcanised Rubber will be having superior Properties compare to Natural Rubber.

5.9 Explain the properties of Following type of Rubbers.

a. Crape Rubber.

b. Gristle Rubber.

c. Micro Cellular Rubber.

5.10 State the application and uses of above Rubbers.

5.11 Define Synthetic Rubber.

5.12 Explain the composition, Properties and uses of following synthetic rubbers.

a. Styrene Butadiene rubber.

b. Poly Isoprene rubber.

c. Poly butadiene rubber.

d. Nitrile rubber.

e. Resin rubber.

5.13 Explain following properties required for good sole materials.

a. Grain Crack Resistance
b. Lightness
c. Flexibility
d. Air & Water vapour permeability
e. Uniformity
f. Durability
g. Non slip.

5.14 Distinguish Thermo Plastics, Thermo setting plastics.
5.15 Give examples for Thermo plastics, Thermo setting plastics.
5.16 Distinguish following synthetic soling materials.
a. P.V.C.
b. Ethylene Vinyl Acetate,
c. Nylon
d. Polyurethane
e. Thermo plastic rubber.
5.17 Explain the properties of above Synthetic soling materials.
5.18 Explain properties required for insoles in respect of Tensile Strength, Stitch tear strength, Scuff resistance, Flexing index, Dimensional stability.
5.19 Explain carbon fibre plates which can be used as soles in sports footwear.
5.20 Explain advantages of using carbon fibre plates in Marathon running and other sports
5.21 List different materials that can be used as Insoles.
5.22 Classify insoles based on material.
5.23 Define bottom filling agent.
5.24 Name different bottom filling agents like
a. Sawdust
b. Leather Scraps.
c. Felt.
d. Sponge Rubber.
5.25 State the properties required for bottom filling agents.
5.26 Explain the characteristics of following Bottom filling agents.
a. Saw dust.
b. Leather Scraps.
c. Felt.
d. Sponge Rubber.
5.27 List different types of Wood species.
5.28 Name different types of Wood used in Soles, Clog sandals, heels, shoe lasts.
5.29 Explain properties required for wood to be used as soles, clog sandals.
5.30 Explain properties required for wood to be used as shoe lasts.
5.31 Classify heel based on shape.
5.32 Explain different materials to be used as heels in footwear manufacturing.
5.33 Name the material that can be used in Stiletto heel.
5.34 List different shank materials.
5.35 Explain the properties required for the shank material.
5.36 List different Mid sole materials.

6. **Components**

6.1 Define Adhesive.
6.2 Classify the adhesives.
6.3 Distinguish Temporary, Permanent adhesives.
6.4 List the examples of Temporary adhesives.
6.5 List the examples of Permanent adhesives.
6.6 Explain the composition of following adhesives.

a. Vegetable paste
b. Rubber Latex
c. Natural rubber solution

d. Neoprene
e. Polyurethane
f. hot melt adhesives.

6.7 Identify the use of above adhesives in specific footwear fabrication operations.

6.8 Explain the properties of above adhesives.

6.9 Explain criteria for selection of adhesives.

6.10 Explain Styrene Isoprene Styrene adhesives

6.11 State the properties required for threads to be used in footwear manufacturing.

6.12 Classify the Threads.

6.13 Explain the properties of following Threads.

a. Cotton.
b. Linen.
c. Silk.
d. Jute.
e. Hemp.
f. Poly ester.
g. Poly amide.

6.14 Distinguish Fiber, Yarn, and Thread.

6.15 Define Yarn Count.

6.16 Define Thread Count.

Suggested Student Activities

Each student should do any one of the following type activity or any other similar activity related to the course and before conducting , get it approved from concerned Teacher and HOD.

ACTIVITIES

6. Collect different type of leathers.
7. Collect different type of Upper materials.
8. Collect different type of Soles.
9. Collect different type of Threads.

Reference Books

1. Textbook of Footwear materials by J.H.Thornton the National Trade Press Ltd., London 1970.
2. Footwear materials and process Technology by A.S.Harviy, Newzealand. Lasra Publications.
3. Polymeric Materials for Footwear, GangaRadha Krishna.
4. For adhesives Indian Footwear Magazine March, April, 1986.
5. For Thre Das Indian Footwear Magazine January, February, 1983, March, April, 1983, July, August, 1986.

Suggested E-Learning references

http://icanmakeshoes.com>shoemaking.
2. **www.simpleshoemaking.com**
3.http://shoemakingcoursesonline.com

CO PO Mapping Matrix

Course outcomes		CL	Linked PO	Teaching periods
CO1	Explain different type of Leathers used in Footwear Fabrication.	**U/A**	**2,4**	**8**
CO2	Explain different type of synthetic materials used in Footwear Fabrication.	**U/A**	**2,4,6**	**8**
CO3	Explain different type of finishing materials used in Leather goods manufacturing.	**U/A**	**2,4**	**10**
CO4	Explain different type of Grinderies used in Leather goods manufacturing.	**U/A**	**2,4,10**	**10**
CO5	Explain different type of Bottoming materials used in Leather goods manufacturing.	**U/A**	**2,4,6**	**12**
C06	Explain different type of Adhesives used in Leather goods manufacturing.	**U/A**	**2,4**	**12**

MID SEM-I EXAM

S.No	Unit Name	R	U	A	Remarks
1	Unit-I	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-II	3, 4	6(a) 6(b)	8(a) 8(b)	
Total Questions		4	4	4	

MID SEM –II EXAM

S.No	Unit Name	R	U	A	Remarks
1	Unit-III	1, 2	5(a) 5(b)	7(a) 7(b)	
2	Unit-IV	3, 4	6(a) 6(b)	8(a) 8(b)	
Total Questions		4	4	4	

Semester End Examination

Sl No	Unit No.	Questions to be set for SEE				Remarks
		R		U	A	
1	I	4	1	9(a)	13(a)	
2	II					
3	III		2	10(a)	14(a)	
4	IV					
5	V		3 5, 6	9(b) 11(a) 11(b)	13(b) 15(a) 15(b)	
6	VI		7,8	10(b) 12(a) 12(b)	14(b) 16(a) 16(b)	
Total Questions		8		8	8	

Legend:	Remembering (R)	1 Mark
	Understanding (U)	3 Marks
	Application (A)	5 Marks

BOARD DIPLOMA EXAMINATIONS (C-18)
MID SEM-I ,
THIRD SEMESTER EXAMINATION

Subject Name : Leather Goods and Footwear Materials.
Subject Code : 18FW-305C

[Time Duration : 1 Hour] **[Total marks :20]**

PART-A

Answer ALL Questions and each question carries 01 marks **4 x 1= 4 marks**

17. List different sources of Leather.
18. Draw the neat sketch of the skin and identify stretch and tight ness directions.
19. Give examples for Coated fabrics.
20. Name different materials that can be used as Toe puffs in Footwear Manufacturing.

PART-B

Answer any TWO Questions s and each question carries 03 marks **2 x 3 = 6 marks**

21. a) Distinguish Suede and Nuebuck leathers.

(OR)

b) Explain the difference between Split leather and Corrected grain leather.

22. a) With suitable examples explain Non woven fabrics.

(OR)

b) Name and explain different synthetic fibers.

PART-C

Answer any TWO Questions and each question carries 05 marks **2 x 5= 10 marks**

23. a) Explain the suitability of different type of leathers for different type of Footwear.

(OR)

b) Which is the best Footwear upper material and explain why it is so.

24. a) Compare poromerics and leather as Upper materials.

(OR)

b) What are Woven Fabrics and explain their application in Footwear.

BOARD DIPLOMA EXAMINATIONS (C-18)
MID SEM-II ,
THIRD SEMESTER EXAMINATION

Subject Name : Leather Goods and Footwear Materials.

Subject Code : 18FW-305C

[Time Duration : 1 Hour] **[Total marks :20]**

PART-A

Answer ALL Questions and each question carries 01 marks **4 x 1= 4 marks**

25. Explain why we have to condition the upper before upper finishing.
26. Explain why we have to fill the upper during Upper finishing.
27. What are Studs?
28. Explain D ring, O rings.

PART-B

Answer any TWO Questions s and each question carries 03 marks **2 x 3 = 6 marks**

29. a) Explain different type of cleaners used in Footwear Upper cleaning.

(OR)

b) What are Wax crayons?

30. a) Explain different type of Locks used in Leather goods and Footwear Manufacturing.

(OR)

b) Explain different type of Rivets used in Leather goods and Footwear Manufacturing.

PART-C

Answer any TWO Questions and each question carries 05 marks **2 x 5= 10 marks**

31. a) Explain how you will make shoe attractive by Shoe Dressings.

(OR)

b) Explain different type of Waxes .

32. a) Explain different things you will do to make your shoe more attractive.

(OR)

b) Suggest different type of Tacks to be used in different Footwear Making operations.

C18-FW-305C

BOARD DIPLOMA EXAMINATION, (C-18)

Diploma in Leather Goods & Footwear Technology III SEMESTER EXAMINATION

Leather Goods and Footwear Materials

Time : 2 Hours] [Total Marks: 40

PART-A

08X01=08

Instructions : 1. Answer **ALL** questions.
2. Each question carries **ONE** mark.

13. Name different sources of Leather.
14. List different type of Tacks used in Footwear Fabrication.
15. With suitable examples explain Temporary adhesive.
16. Explain the difference between Suede and Nubuck leather.
17. With suitable example explain Thermo plastics.
18. Name different materials that can be used as Heels.
19. Distinguish fibre, Yarn, Thread.
20. What is Yarn count?

PART-B

04X03=12

Instructions : 1. Answer any **FOUR** questions.
2. Each question carries **THREE** marks.

9. (a) With suitable examples explain woven fabrics.

(or)

9. (b) Explain the properties required for Insole Material.

10. (a) What are shoe Dressings?

(or)

10. (b) Explain the classification of Natural Threads.

11. (a) Explain different materials that can be used as Insoles in Footwear Manufacturing.

(or)

11. (b) Explain different materials that can be used as Bottom fillers in Footwear manufacturing.

12. (a) What is Shelf life, Pot life of an Adhesive.

(or)

12. (b) Write the properties required for an Adhesive to be used in Footwear Manufacturing.

PART-C

04X5=20

Instructions : 1. Answer any **FOUR** questions.

2. Each question carries **FIVE** marks.

13. (a) Explain the suitability of different type of leathers for different type of Footwear.

(or)

13. (b) Suggest the sole materials for following type of Footwear by explaining the reasons.

a. Sports shoe with spikes.
b. Platform shoes.
c. Light weight dress shoe.

14. (a) Explain different things you will do to make your shoe more attractive.

(or)

14. (b) Explain the composition of Poly chloroprene Adhesive and its applications in Footwear Industry.

15. (a) With suitable examples explain different uses of different type of Woods in footwear manufacturing.

(or)

15. (b) Explain for what type of footwear PU soles are More suitable.

16. (a) What is Hot melt adhesive? And explain its applications in Footwear Industry.

(or)

16. (b) Explain different applications of PU Adhesive in Footwear Industry..

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BASIC LEATHER GOODS FABRICATION LAB PRACTICE

Course Title :	**BASIC LEATHER GOODS FABRICATION LAB PRACTICE**	Course Code	**18FW-306P**
Semester	**III**	Course Group	**Core**
Teaching Scheme in Periods(L:T:P)	**15:0:30**	Credits	**1.5**
Methodology	**Lecture + Practical**	Total Contact Hours :	**:45Pds**
CIE	**60 Marks**	SEE	**40 Marks**

Pre requisites

This course requires the Basic Knowledge of Leather goods fabrication.

Rationale:

The course is designed to make student to fabricate small leather goods with the given material.

Course outcomes

On successful completion of the course, the students will be able to attain below Course Outcome

Course Outcome		Linked Exercises	CL	Linked PO	Teaching Hours
CO	Fabrication of key case.	2	R/U/A	2,4,7	6
CO2	Fabrication of Coin purse	3	R/U/A	2,4,7	6
CO3	Fabrication of Wallet	4	R/U/A	2,4,7	9
CO4	Fabrication of Credit card case.	5	R/U/A	2,4,7	6
CO5	Fabrication of Cell phone case.	6	R/U/A	2,4,7	6
C06	Fabrication of Comb case.	7	R/U/A	2,4,7	6

Course Contents (Exercises)

1. Thonging practice.
2. Fabrication of key case.
3. Fabrication of Coin purse
4. Fabrication of Wallet

5. Fabrication of Credit card case.
6. Fabrication of Cell phone case.
7. Fabrication of Comb case.

Specific Learning Outcomes

1.Thonging practice.

1.1Cut and Prepare the leather pieces for thonging operation.
1.2Prepare Leather Laces for thonging.
1.3Attach components by thonging.

2. Fabrication of Key case

2.1Develop patterns for cut edge key case
2.2Cut the components with leather or given material.
2.3Split and skive the components.
2.4Stitch the components.
2.5Attach hooks, press buttons.
2.6 Finish the key case.

3. Fabrication of Coin purse

3.1 Develop patterns for Coin purse.
3.2 Cut the components with leather or given material.
3.3 Split and skive the components.
3.4 Stitch the components.
3.5 Attach press buttons.
3.6 finish the Coin purse.

4. Fabrication of wallet

4.1 Develop patterns for Wallet.
4.2 Cut the components with leather or given material.
4.3 Split and skive the components.
4.4 Stitch the components.
4.5 Attach press buttons.

5. Fabrication of Credit card case.

5.1 Develop patterns for Credit card case
5.2 Cut the components with leather or given material.
5.3 Split and skive the components.
5.4 Stitch the components.
5.5 Finish the Credit card case.
5.6 Make the credit card case by thronging.

6 Fabrication of Cell phone case.

6.1 Develop patterns for Cell phone case.
6.2 Cut the components with leather or given material.
6.3 Split and skive the components.
6.4 Stitch the components.
6.5 Attach grinderies.
6.6 Finish the Cell phone case

7 .Fabrication of Comb case.

7.1 Develop patterns for Comb case.
7.2 Cut the components with leather or given material.
7.3 Split and skive the components.

7.4 Stitch the components.
7.5 finish the Comb case.
7.6 Make the comb case by Thonging

Suggested Student Activities

1. Survey of new designs in showrooms, shopping malls, Net, magazines.

2. Fabricate small leather goods with eco friendly and innovative materials.

3.Developing innovative new designs of small leather goods.

REFERENCES

1) Manual of shoe making - Clarks.
2) Text book of Footwear manufacture - H.J.Thronton.
3) Lectures notes on Footwear Technology - SomanathGanguly. (Series of Articles in JILTA)
4) Lecturer notes on Leather Products fabrication- CLRI.

E Learning Resources

http://icanmakeshoes.com>shoemaking.
2. **www.simpleshoemaking.com**
3. http://shoemakingcoursesonline.com

Scheme of Valuation of SEE		
S.No	Particulars	Marks
1.	Identification of tools/machine	02
2.	Writing procedure	08
3.	Conducting of experiment and performing the given task	20
4.	Results	05
5.	Viva-voce	05
	Total	40

State Board of Technical Education and Training, Telangana

Semester End Examination Model Question paper

DFWT III Semester Practical Examination

Corse Code: 18FW-306P **Duration: 3 hours**

Course Name: BASIC LEATHER GOODS FABRICATION LAB PRACTICE

Max.Marks:40

Instructions to the Candidates:

(i)Answer any One of the following Questions.

1. Fabricate Key case with the given material.
2. Fabricate coin case with the given material.
3. Fabricate Wallet with the given material.
4. Fabricate credit card case with the given material.
5. Fabricate Cell phone case with the given material.
6. Fabricate Comb case with the given material.

FOOTWEAR CUTTING AND PRE FITTING OPERATIONS LAB PRACTICE

Course Title :	**FOOTWEAR CUTTING AND PREFITTING OPERATIONS LAB PRACTICE**	Course Code	**18FW307P**
Semester	**III**	Course Group	**Practicals**
Teaching Scheme in Periods(L:T:P)	**0:2:4** **15:0:30**	Credits	**1.5**
Methodology	**Lecture + Practical**	Total Contact Hours :	**:45Pds**
CIE	**60 Marks**	SEE	**40 Marks**

Pre requisites

This course requires the Basic Knowledge of Leather products Fabrication

Rationale:

The course is designed to help the student in understandingidentifying defects in shoe upper making materials, how to performvarious operations involved in fabrication of shoe upper ,method of practicing various operations manually and by using machines, understanding different difficulties occur during practicing various operations, operating machines.

Course outcomes

On successful completion of the course, the students will be able to attain below Course Outcomes

Course Outcome		**Linked Exercises**	**CL**	**Linked PO**	**Teaching Hours**
CO1	Identify defects on Leather	1	R/U/A	1,2,3	03
CO2	Lay outing the various shoe components on given leather by considering all quality parameters	2	R/U/A	1,2,3	09
CO3	Cut the shoe upper components by using clicking knife and cut the components of footwear by clicking machine	3,4,5	R/U/A	1,2,3,4,6,10	15
CO4	Split the shoe upper components by using Splitting machine	6,9	R/U/A	1,2,3,6,10	06
CO5	Skive the shoe upper components by using Rampi and Skive the components of footwear by Skiving machine	7,8,10	U/A	1,2,3,4,6,10	12

Course Contents (Exercises)

1.	Identification of defects on Leather
2.	Practice of nesting
3.	Study of Cutting Tools
4.	Cutting practice of upper leather
5.	Cutting practice of lining leather, Synthetic materials, and Bottom components.
6.	Practice of Splitting
7.	Practice of hand skiving
08	Practice of Machine skiving
09	Study and Maintenance of splitting machine
10	Study and Maintenance of Skiving machine

Suggested Student Activities

1. Nesting and material consumption calculation on old Footwear and Leather goods.
2. Exploring combination nesting of different components.
3. Collecting videos of Laser cutting and other advanced cutting techniques.
4. Collecting leathers with different leather defects.

E Learning Resources

1. http://icanmakeshoes.com>shoemaking.
2. **www.simpleshoemaking.com**
3. http://shoemakingcoursesonline.com

Scheme of Valuation of SEE		
S.No	Particulars	Marks
1.	Identification of tools/machine	02
2.	Writing procedure	08
3.	Conducting of experiment and performing the given task	20
4.	Results	05
5.	Viva-voce	05
	Total	40

State Board of Technical Education and Training, Telangana

Semester End Examination Model Question paper

DFW III Semester Practical Examination

Corse Code: 18FW307P **Duration: 3 hours**

Course Name: 18FW307P— FOOTWEAR CUTTING AND PREFITTING OPERATIONS LAB PRACTICE

Max.Marks:40

Instructions to the Candidates:

(i)Answer any One of the following Questions.

1. Identify the defects on given finished leather and explain characteristics of each defect.
2. Nest the given shoe upper component patterns on given leather (model leather brown sheet) by considering suitable portion of leather, all quality parameters required by the shoe components.
3. Explain various tools used for cutting, describe method of working and maintenance of tools.
4. Cut the given shoe upper components from the given leather by using clicking knife.
5. Cut the given shoe Lining and bottom components from the given material by using clicking knife.
6. Split the given shoe upper component on Band knife splitting machine.
7. Skive the given shoe upper component along the marked portion by using Rampi.
8. Skive the given shoe upper component on Skiving machine.
9. Explain working system of skiving machine with neat diagram and explain machine adjustment.
10. Explain working system of skiving machine with neat diagram and explain machine adjustment.

Elementary Footwear Designing Practice

Course Title :	**Elementary Footwear Designing practice**	Course Code	**18FW-308P**
Semester	**III**	Course Group	**Practical**
Teaching Scheme in Periods(L:T:P)	**15:0:30**	Credits	**1.5**
Methodology	**Lecture + Practical**	Total Contact Hours :	**:45Pds**
CIE	**60 Marks**	SEE	**40 Marks**

Pre requisites

This course requires the Basic Knowledge of last, basic footwear styles.

Rationale:

The course is designed to make student to design, develop patterns, and fabricate open type footwear, Derby and oxford footwear styles.

Course outcomes

On successful completion of the course, the students will be able to attain below Course Outcome

Course Outcome		Linked Exercises	CL	Linked PO	Teaching Hours
CO1	Measure Feet and Last.	2	R/U/A	2,3	3
CO2	Develop mean forme for a given last by Scotch tape method.	3	R/U/A	2,4,	6
CO3	Design, develop patterns for sandals of ladies, gents.	4	R/U/A	2,4,7,10	9
CO4	Preparing the sample uppers for sandals using paper.	5	R/U/A	2,4	6
CO5	Designing and Develop the patterns for Derby shoe style.	6	R/U/A	2,4,7,10	9
C06	Designing and Develop the patterns for Oxford shoe style.	7	R/U/A	2,4,7,10	9

Course Contents (Exercises)

8. Study of tools and Equipment required for designing.
9. Foot measurement, Last measurements
10. Forme cutting
11. Designing upper patterns for sandals of ladies, gents.

12. Preparing the sample uppers for sandals using paper.
13. Designing and pattern development of Derby shoe.
14. Designing and Pattern development of Oxford shoe.

Specific Learning Outcomes

1Study of tools and Equipment required for designing.

1.1 Identify different designing tools.
1.2 State purpose/ use of different designing tools.
1.3 Use different designing tools.
1.4 Follow the precautions, maintenance procedure while using the designing tools.

2 **Foot measurement, Last measurements.**

2.1 Measure stick length of feet.
2.2 Measure fitting girth.
2.3 Measure Instep girth.
2.4 Measure waist girth.
2.5 Measure heel girth measurements.
2.6 Measure the stick length of the last.
2.7 Measure the fitting girth.
2.8 Measure instep girth.
2.9 Measure waist girth.
2.10 Measure Various heel girth measurements.

3. Forme cutting

3.1Differentiate mean forme from the last.

3.2Develop the mean forme of the given last by Scotch tape method.

3.3Distinguish inside forme from the outside form

4.Designig upper patterns for sandals of ladies , gents.

4.1Design sandals for ladies and gents.

4.2Develop upper pattern for these sandals.

4.3Develop lining pattern for these sandals.

4.4 Develop the shell for single piece sandal.

4.5 Develop the upper patterns for single piece sandal.

4.6 Develop the lining patterns for single piece sandal.

4.7 Develop the shell for Double piece sandal.

4.8 Develop the upper patterns for Double piece sandal.

4.9 Develop the lining patterns for Double piece sandal.

4.10Develop the shell for Sandal with vamp and counter.

4.11 Develop the upper patterns for Sandal with Vamp and Counter.

4.12 Develop the lining patterns for Sandal with Vamp and Counter.

5. Preparing the Sample Uppers for sandals using the paper

5.1 Cut the upper components by using the brown paper
5.2 Fabricate the Upper.

6. Design and Pattern development of Derby shoe.

6.1 Develop Derby base from the mean forme.
6.2 Develop Derby upper shell from the Derby base.
6.3 Develop patterns for Various upper components of Derby shoe from Derby shell.
6.4 State different springs to be given to standard/shell.
6.5 Develop derby lining shell from the derby upper shell.
6.6 Develop patterns for various lining components of derby shoe from lining shell.
6.7 Develop Toe cap derby upper shell, lining shell, Upper patterns, lining patterns from the given mean forme.
6.8 Develop wing cap derby upper shell, lining shell, Upper patterns, lining patterns from the given mean forme.
6.9 Develop Toe cap , facing and counter upper shell, lining shell, Upper patterns, lining patterns from the given mean forme.
6.10 Develop Wing cap , facing and counter upper shell, lining shell, Upper patterns, lining patterns from the given mean forme.

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7. Design and Pattern development of Oxford shoe.

7.1 Develop Oxford Standard from the mean forme.
7.2 Develop Oxford upper shell from the Oxford standard.
7.3 Develop patterns for Various upper components of Oxford shoe from Oxford shell.
7.4 State different springs to be given to standard/shell.
7.5 Develop Oxford lining shell from the Oxford upper shell.
7.6 Develop patterns for various lining components of Oxford shoe from lining shell.
7.7 Develop Toe cap Oxford upper shell, lining shell, Upper patterns, lining patterns from the given mean forme.
7.8 Develop wing cap Oxford upper shell, lining shell, Upper patterns, lining patterns from the given mean forme.
7.9 Develop Toe cap , facing and counter upper shell, lining shell, Upper patterns, lining patterns from the given mean forme.
7.10 Develop Wing cap , facing and counter upper shell, lining shell, Upper patterns, lining patterns from the given mean forme.

Suggested Student Activities

1. Survey of new designs in showrooms, shopping malls, Net, magazines.
2. Design and Develop patterns for new open type footwear designs,
3. Design and Develop patterns for new Derby, Oxford style.

REFERENCES

5) Manual of shoe making - Clarks.
6) Text book of Footwear manufacture - H.J.Thronton.
7) Shoe designing manual-Leather Technology Mission-CLRI
8) Lectures notes on Footwear Technology - SomanathGanguly. (Series of Articles in JILTA)
9) Lecturer notes on Footwear Designing- CLRI.

E Learning Resources

http://icanmakeshoes.com>shoemaking.
2. **www.simpleshoemaking.com**
3. http://shoemakingcoursesonline.com

Scheme of Valuation of SEE		
S.No	Particulars	Marks
1.	Identification of tools/machine	02
2.	Writing procedure	08
3.	Conducting of experiment and performing the given task	20
4.	Results	05
5.	Viva-voce	05
	Total	40

State Board of Technical Education and Training, Telangana
Semester End Examination Model Question paper
DFWT III Semester Practical Examination

Corse Code: 18FW-308P **Duration: 3 hours**

Course Name: Elementary Footwear Designing practice

Max.Marks:40

Instructions to the Candidates:

(i)Answer any One of the following Questions.

1. Develop the Mean forme for the given last.
2. Design, develop the shell, develop Upper, lining patterns for Single piece sandal.
3. Design, develop the shell, develop Upper, lining patterns for Two piece sandal.
4. Design, develop the shell, develop Upper, lining patterns for Sandal with vamp and Couter.
5. Design, develop the upper shell, Upper patterns, Lining shell, lining patterns for Toe cap Derby from the given Mean forme.
6. Design, develop the upper shell, Upper patterns, Lining shell, lining patterns for Wing cap Derby from the given Mean forme.
7. Design, develop the upper shell, Upper patterns, Lining shell, lining patterns for Oxford from the given Mean forme.
8. Design, develop the upper shell, Upper patterns, Lining shell, lining patterns for Toe cap Oxford from the given Mean forme.
9. Design, develop the upper shell, Upper patterns, Lining shell, lining patterns for Wing cap Oxford from the given Mean forme.

BASIC RANGE BUILDING

Course Title :	**BASIC RANGE BUILDING**	Course Code	**18FW-309P**
Semester	**III**	Course Group	**Practical**
Teaching Scheme in Periods(L:T:P)	**0:0:45**	Credits	**1.5**
Methodology	**Practical**	Total Contact Hours :	**:45Pds**
CIE	**60 Marks**	SEE	**40 Marks**

Pre requisites

This course requires the Basic Knowledge of Footwear and Leather goods designing.

Rationale:

The course is designed to make student to Interpretate various fashion forecasts, design, develop patterns, fabricate new footwear designs with given material.

Course outcomes

On successful completion of the course, the students will be able to attain below Course Outcome

Course Outcome		**Linked Exercises**	**CL**	**Linked PO**	**Teaching Hours**
CO1	Interpretate fashion forecasts of Footwear.	1.2.3.4.5	U/A	8,9,10	9
CO2	Develop new Designs, develop the patterns for open type Footwear.	6,7	A	2,8,9,10	9
CO3	Fabricate the new open type footwear designs with the selected material.	8	U/A	3,8	9
CO4	Develop new Designs, develop the patterns for Laced footwear styles like Derby and Oxford.	9,10	A	2,8,9,10	9
CO5	Fabricate the new Laced footwear styles like Oxford, Derby designs with the selected material.	11	U/A	3,8	9

Course Contents (Exercises)

1. Collection of different styles and fashions
2. Fashion forecasting interpretation of Last shapes.
3. Fashion forecasting interpretation of heel shapes.
4. Fashion forecasting interpretation of upper material.
5. Fashion forecasting interpretation of Shade, finish trends.
6. Develop new designs for open type footwear.
7. Develop patterns for new open type footwear designs.
8. Fabricate new open type Footwear designs with given material.
9. Develop new designs for Laced footwear styles like Derby and Oxford.
10. Develop patterns for new designs of Laced footwear styles like Derby and Oxford .
11. Fabricate new designs of Laced footwear styles like Derby and Oxford .

Suggested Student Activities

1. Survey of Fashion forecasts in Net, magazines, fashion shows.
2. Collecting innovative grinderies, ornamentations.
3. Presenting their new designs to peer group and others collecting their opinion.

REFERENCES

1) Manual of shoe making - Clarks.
2) Text book of Footwear manufacture - H.J.Thronton.
3) Shoe designing manual-Leather Technology Mission-CLRI
4) Lectures notes on Footwear Technology - SomanathGanguly. (Series of Articles in JILTA)
5) Lecturer notes on Footwear Designing- CLRI.

E Learning Resources

1. http://icanmakeshoes.com>shoemaking.
2. **www.simpleshoemaking.com**
3. http://shoemakingcoursesonline.com

Scheme of Valuation of SEE		
S.No	Particulars	Marks
1.	Identification of tools/machine	02
2.	Writing procedure	08
3.	Conducting of experiment and performing the given task	20
4.	Results	05
5.	Viva-voce	05
	Total	40

State Board of Technical Education and Training, Telangana

Semester End Examination Model Question paper

DFWT III Semester Practical Examination

Corse Code: 18FW-309P **Duration: 3 hours**

Course Name: BASIC RANGE BUILDING

Max.Marks:40

Instructions to the Candidates:

(i)Answer any One of the following Questions.

1. Explain the Theme/ Inspiration Develop the new designs, develop the patterns for open type footwear.
2. Explain the Theme /Inspiration Develop new designs, Develop the patterns for Laced footwear styles like Derby.
3. Explain the Theme /Inspiration Develop new designs; develop the patterns for Laced footwear styles like Oxford.

Communication Skills and Life Skills

Course Title	**Communication Skills and Life Skills**	Course Code	**18 Common 310 P**
Semester	**III**	Course Group	**Foundation**
Teaching Scheme in Periods- L: T:P	**1:0:2**	Credits	**1.5**
Methodology	**Lecture + Practical**	Total Contact Periods	**45**
CIE	**60 Marks**	SEE	**40 Marks**

Rationale:

This course is designed to impart communication skills and life skills to the students of diploma which will help them a great deal in personal and professional fronts.

Prerequisites:

This course requires the basic knowledge of vocabulary, grammar, and four language learning skills, viz. Listening, Speaking, Reading and Writing.

Course Outcomes:

	At the end of the course the students will have the ability to:
Listening Skills	Identify the main or the central idea. Listen for specific details. Learn the pronunciation.
Communication Skills – I	Learn relevant vocabulary to make introductions. Learn to introduce oneself in formal and informal situations. Learn vocabulary and expressions useful for describing objects Describe objects
Communication Skills – II	Learn vocabulary to talk about the past Describe the incidents that happened in the past Learn the techniques of organising the matter / content for one-minute speech. Speak fluently and accurately using appropriate body language.

Life Skills – I	Think positively. Develop positive attitude. Overcome negative attitude. Know the importance of setting goals. Set goals using SMART features.
Life Skills – II	Know the reasons for a problem. Learn to overcome problems. Learn the various techniques to solve the problems. Learn to make proper decisions on time. Think 'out of the box'. Learn to be creative. Think innovatively. Think critically.
Life Skills – III	Know how to be a leader. Learn the qualities of a good leader. Learn the qualities of a good team. Learn the advantages and disadvantages of a team. Manage time effectively. Learn various time management techniques. Learn the importance of prioritisation.

CO-PO Matrix

	Course Outcome		**Linked PO**	**Teaching Periods**
CO 1	Listening for main idea and specific details	**R/U/A**	**1, 2, 3, 4, 5,7,8, 9,10**	**9**
CO 2	Introduce oneself and Describe Objects	**R/U/A**	**1,2,3,8,9,10**	**6**
CO 3	Talk about the past and speak fluently for one minute	**R/U/A**	**1,2,3,7,8.9,10**	**6**
CO 4	Develop positive attitude and set short term and long term goals	**R/U/A**	**1,2,3,7,8,9,10**	**6**
CO 5	Learn to solve a problem, make decisions and think innovatively	**R/U/A**	**1,2,3,7,8,9,10**	**9**
CO6	Learn to become a good team member and leader	**R/U/A**	**1,2,3,7,8,9,10**	**9**

Course Contents:

I. Listening Skills **Duration: 9**

1. Listening – I
    - Digital Camera
    - A Dialogue
    - Wild Animal / Human conflict
2. Listening – II
    - A Recipe
    - A Telephone conversation
    - An Interview

II. Communication Skills – I **Duration:6**

3. Introducing Oneself
4. Describing Objects

III. Communication Skills – II **Duration:6**

5. Talking About the Past
6. Just A Minute

IV. Life Skills – I **Duration:6**

7. Attitude
8. Goal Setting

V. Life Skills – II **Duration:9**

9. Problem Solving and Decision-Making Skills
10. Critical Thinking & Creativity

VI. Life Skills – III **Duration:9**

11. Leadership and Teamwork
12. Time Management

Suggested Student Activities:

- Listening Comprehension
- Seminars
- Paper Presentations
- Line ups for introducing oneself
- Describing persons / places / things
- Picture description
- Role Plays
- Dumb charades
- What is in the bag? (Identify the objects)
- Games using Online Dictionaries
- Sharing the information using emails, chats and groups
- Just A Minute
- Writing diary events
- Find a solution to the problem
- Making innovative things through recycling
- Creating advertisements
- Five-minute activities on Life Skills

- Watching videos on life skills and making presentations

Evaluation Pattern:

I. Continuous Internal Examination: 60 Marks

a. **Mid Sem- I** 20 marks
Syllabus:
i. Listening Skills
ii. Communication Skills - I

b. **Mid Sem – II** 20 Marks
Syllabus:
i. Communication Skills - II
ii. Life Skills - I

c. **Internal assessment**: 20 marks

i. Seminars: 10 marks
ii. Assignments: 5 marks
iii. Lab record submission: 5 marks

II. Semester End Examination : 40 Marks

a. Listening: 10 Marks
b. JAM or Role plays: 15 Marks
c. *Viva Voce* on any life skills topic : 15 Marks

References:

1. Flint, Chrisand Jamie Flockhart*Listening: A2 (Collins English for Life: Skills)*Collins. 2013
2. *Brown, Stephen E. English in Everyday Life. McGraw-Hill Education.2008*
3. Mohanraj, Jayashree. *Let Us Hear Them Speak: Developing Speaking-Listening Skills in English*.Sage. 2015
4. Susan Earle – Carlin. *Q Skills for Success: Listening and Speaking 5: Student Book with Online Practice*. Oxford University Press. 2013
5. Kumar, Sanjay and Pushpa Latha. *Communication Skills: A Work Book*.Oxford University Press. 2018
6. Carnegie, Dale.*The Leader in You*. Simon & Schuster: 1995
7. Carnegie, Dale.*The Art of Public Speaking*. Prabhat Prakashan. NewDelhi.2013
8. Kaye, Martin. Goal Setting (Workbook Included): Goals & Motivation: Introduction To A Complete & Proven Step-By-Step Blueprint For Reaching Your Goals (Goal Setting Master Plan 1). Kindle Edition. MK Coaching.2016.
9. West, Steven. Critical Thinking Skills: Practical Strategies for Better Decision making, Problem-Solving and Goal Setting. Kindle Edition.2018
10. Tracy, Brain. Goals. Berret-Koehler PublishersInc. San Francisco. 2017
11. Tracy, Brain. Master your Time Master your Life. Penguin Random House Inc. New York. 2017

Sean Covey . *The 7 Habits of Highly Effective Teens.* Simon and Schuster,2011

E-Learning Resources:

1. http://www.bbc.co.uk/worldservice/learningenglish/youmeus/learnit/learnitv39.shtml
2. https://www.examenglish.com/leveltest/listening_level_test.htm
3. https://www.oxfordonlineenglish.com/listening?utm_referrer=https%3A%2F%2Fwww.google.co.in%2F
4. https://takeielts.britishcouncil.org/prepare-test/free-ielts-practice-tests/listening-practice-test-1
5. https://learnenglish.britishcouncil.org/en/listening
6. https://www.cambridgeenglish.org/learning-english/activities-for-learners/?skill=listening
7. https://www.businessenglishsite.com/business-english-listening.html

BOARD DIPLOMA EXAMINATION (C-18)
THIRD SEMESTER 18 COMMON-310P
COMMUNICATION SKILLS AND LIFE SKILLS
MID SEM - I

Time : 1 Hour **Total Marks: 20 Marks**

Part – A **10 marks**

1. Listening Comprehension: 5 X 2 = 10

(Teacher should give the questions before reading the passage given below)

Florence Nightingale was an English social reformer and a statistician, and the founder of modern nursing. She was born in Florence, Italy, on May 12, 1820. Part of a wealthy family, Nightingale defied the expectations of the time and pursued what she saw as her God-given calling of nursing during the Crimean War. She and a team of nurses improved the unsanitary conditions at a British base hospital, greatly reducing the death count. Her writings sparked worldwide health care reform, and in 1860 she established St. Thomas' Hospital and the Nightingale Training School for Nurses. A revered hero of her time, she died on August 13, 1910, in London. Nightingale came to prominence while serving as a manager and trainer of nurses during the Crimean War, in which she organized care for wounded soldiers. She gave nursing a favorable reputation and became an icon of Victorian culture, especially in the persona of "The Lady with the Lamp" making rounds of wounded soldiers at night.

Questions:

1. Who was Florence Nightingale?
2. When and where was she born?
3. What does the passage convey?
4. When did she pass away?
5. Where did she establish nursing school?

PART- B **10 Marks**

Instruction: Answer any one of the questions in 150 words.

2. How do you introduce yourself formally in an interview?
3. Describe your polytechnic.

BOARD DIPLOMA EXAMINATION (C-18)
THIRD SEMESTER 18 COMMON-310P
COMMUNICATION SKILLS AND LIFE SKILLS
MID SEM - II

Time : 1 Hour **Total Marks: 20 Marks**

Part – A **10 marks**

Instruction: Answer any one of the following questions in 150 words.

1. Describe how you have spent your summer vacation.
2. What are the features of good JAM presentation? What precautions do you before speaking for one minute on the given topic?

Part – B **10 marks**

Instruction: Answer any one of the following questions in 150 words.

3. What is positive attitude? Give examples of positive attitude from your life.
4. Mention your long term goal with SMART features. How do you achieve it?

BOARD DIPLOMA EXAMINATION (C-18)
THIRD SEMESTER 18 COMMON-310P
COMMUNICATION SKILLS AND LIFE SKILLS
SEMESTER END EXAM

Time : 3 Hours **Total Marks: 40 Marks**

Part – A **10 marks**

1. Listen to the following passage and answer the questions give below it**. 5 X 2 = 10**

(Teacher should give the questions before reading the passage)

Answer the following questions after teacher reads the following paragraph.

Prof. Jayashankar was born to Mahalaxmi and Laxmi Kantha Rao on 6th August 1934 in Akkampet village, Warangal District. He was a Doctorate in Economics. He worked as a Vice-Chancellor of Kakatiya University. He worked in many capacities. He was popularly known as "Pedda Sir." He inspired many a people to fight for the cause of Telangana Statehood.

At the age of twelve, Jayashankar refused to sing songs in praise of the Nizam and insisted on singing Vande Mataram instead. As an intermediate student, in 1952, he protested against State Reorganization Committee plan to merge with the Andhra Rashtra. He took an active part in the agitations of "Non – Mulki go back" and " Idli Sambar go back." He took an active part in Telangana separate statehood agitation in 1969 too. In 1999, Prof. Jayashankar started the Telangana Development Forum in the USA which helped to propagate the injustice, discrimination and exploitation meted out to Telangana region and people in the aspects of employment, funds and water resources. He relentlessly put his efforts to end the struggle of Telangana people. He passed away on June 21, 2011. He was 76 years old at the time of his death.

Questions:

1. Where was Prof. Jayashankar born?
2. Why didn't he sing songs in praise of the Nizam?
3. Why did Jayashankar start the Telangana Development Forum in USA?
4. What are the two agitations in which he took an active part?
5. What is the meaning of 'relentlessly'?

Part – B **15 marks**

2. JAM / Role Plays

Part – C **15 marks**

3. Viva Voce on Life Skills topics