



Daffodil Polytechnic Institute, Institute Code: 50238

Subject Teacher : Md. Obydullah Al Masum
Subject Name : Textile calculation
Subject Code : 21164
Technology : Textile Technology
Semester : 6th FM & YM
Reference Book : Textile Calculation (Publisher: Prime Publication)

<i>Marks</i>	<i>Grade Point</i>	<i>Letter Grade</i>	<i>Marks</i>	<i>Grade Point</i>	<i>Letter Grade</i>
80>	4.00	A+	55-59	2.75	B-
75-79	3.75	A	50-54	2.50	C+
70-74	3.50	A-	45-49	2.25	C
65-69	3.25	B+	40-44	2.00	D
60-64	3.00	B	0-39	0.00	F

Time Distribution (90min)			
	Particular	Time	
Greeting with students		5 Min	
Previous class review		10 Min	
Present class lecture		60 Min	
Feedback		10 Min	
Attendance		5 Min	

THEORY LESSON PLAN

Chapter	Learning Area	Learning Outcome	Supporting Equipments	Date
1.	Textile Fiber 1.1 Define Fiber length and Upper Quartile Length (UQL) 1.2 Define Mean length, Upper Half Mean Length (UHML) and Uniformity. 1.3 Calculate Mean length, UHML, UQL and Uniformity Index 1.4 State fiber Fineness and Maturity 1.5 Calculate Micronaire value and	1. To know about Fiber length and Upper Quartile Length (UQL) processing 2. To Calculate Mean length, UHML, UQL and Uniformity Index 3. To Calculate Short Fiber Content (SFC)	Text Book, marker&	

	Maturity Index of natural fibres 1.6 Calculate Short Fiber Content (SFC) and Short Fiber Index (SFI)	and Short Fiber Index		
2	Count 2.1 Define Count 2.2 Classify Count system 2.3 List the different count in Direct system. 2.4 Discuss Tex, MTex and KTex count. 2.5 List different Count in Indirect system. 2.6 State Ne, Nm and Worsted count. 2.5 Discuss Count conversion system. 2.6 Calculate Resultant and Average Count 2.7 Solve the related mathematical problems	1. To know about Count 2. To know the different count in Direct system.	Text book, marker &	
Quiz Test - 1 Date:		Evaluation of Chapter-1 & 2	Questions & answers script	Quiz Test - 1 Date:
3	Blow room 3.1 Calculate Lap length & Lap hank. 3.2 Calculate production and efficiency 3.3 Find out the Beats per unit length of Beater 3.4 Calculate Blow room waste percentage 3.5 Solve the related mathematical problems	1. To Calculate Lap length & Lap hank. 2. To Calculate Blow room waste percentage	Text Book, Marker	
4	Carding 4.1 Define speed, draft and draft constant 4.2 Calculate speed, draft and draft constant	1. To know about speed, draft and draft constant 2. To Calculate speed, draft and draft constant	Text Book, Marker	

	4.3 Calculate production and efficiency 4.4 Calculate waste percentage of carding machine 4.5 Solve the related mathematical problems	3. To Calculate waste percentage of carding machine 4. To Solve the related mathematical problems		
Class Test - 1 Date:		Evaluation of Chapter- 3 & 4	Questions & answers script	Class Test - 1 Date:
5	Drawing 5.1 Calculate speed, draft and draft constant 5.2 Calculate production and efficiency 5.3 Solve the related mathematical problems	1. To Calculate speed, draft and draft constant 2. To Calculate production and efficiency 3. To Solve the related mathematical problems	Text Book, Marker & Link:	
6	Lap forming and Combing 6.1 Calculate draft and production of Lap former 6.2 Calculate production and efficiency of Comber 6.3 Calculate Noil percentage 6.4 Solve the related mathematical problems	1. To Calculate draft and production of Lap former 2. To Calculate Noil percentage 3. To Solve the related mathematical problems	Text book,, Marker	
	MID TERM EXAM - (Exam starts)		Syllabus: Chapter 1-6	
7	Roving formation using Simplex 7.1 Calculate speed, drat and draft constant 7.2 Calculate twist, twist constant and roving count. 7.3 Calculate spindle speed, production and efficiency 7.4 Calculate doffing time for a particular roving count 7.5 Solve the related mathematical	1. To Calculate speed, drat and draft constant 2. To Calculate twist, twist constant and roving count. 3. To Calculate doffing time for a particular roving count 4. To Solve the	Text book, Marker	

	problems	related mathematical problems		
8	Yarn formation using Ring frame 8.1 Calculate speed, drat and draft constant 8.2 Calculate twist, twist constant and yarn count. 8.3 Calculate spindle speed, production and efficiency 8.4 Calculate doffing time for a particular yarn count 8.5 Measure End breakage rate and Pneumafil percentage 8.6 Solve the related mathematical problems	1. To Calculate speed, drat and draft constant 2. To Calculate spindle speed, production and efficiency 3. To Measure End breakage rate and Pneumafil percentage	Text book, Marker	
Quiz Test - 2 Date:		Evaluation of Chapter- 7 & 8	Questions & answers script	Questions & answers script
9	Winding 9.1 Mention winding 9.2 Classify winding 9.3 Calculate speed, production and efficiency of cone winding machine 9.4 Calculate speed, production and efficiency of cop and pirn winding machine 9.5 Calculate package length, package weight and doffing time. 9.6 Solve the related mathematical problems	1. To Calculate speed, production and efficiency of cone winding 2. To Calculate package length, package weight and doffing time.	Text book, Marker	
10	Spin Plan 10.1 Mention the considering Factors	1. To Prepare a spin plan based on customer	Marker, Text Book	

	for spin plan 10.2 Prepare a spin plan based on customer demand (30s carded) 10.3 Prepare a spin plan based on spindle capacity (30s combed).	demand (30s carded) 2. To Prepare a spin plan based on spindle capacity (30s		
Class Test - 2 Date:		Evaluation of Chapter- 9& 10	Questions & answers script	Class Test - 2 Date:
11	Weaving Preparation 11.1 Find out the size pick-up percentage and sized material count 11.2 Calculate the Production of Warping and Sizing machine 11.3 Define Heald count and Reed count 11.4 Calculate Heald count and Reed count 11.5 Solve the related mathematical problems	1. To Find out the size pick-up percentage and sized material count 2. To Calculate the Production of Warping and Sizing machine 3. To Calculate Heald count and Reed count	Text book, Marker	
12	Weaving 12.1 Calculate the loom constant and picks per inch 12.2 Calculate loom production 12.3 Calculate warp yarn and weft yarn crimp percentage 12.4 Calculate the weight of warp and weft yarn consumption for specified woven fabric. 12.5 Calculate the weight of fabric in ounce per square meter (Oz/m ²) and grams per square meter (gm/m ²) 12.6 Solve the related mathematical problems.	1. To Calculate the loom constant and picks per inch 2. Calculate the weight of warp and weft yarn consumption 3. To Calculate the weight of fabric in ounce per square meter (Oz/m ²) and grams per square meter (gm/m ²) 4.	Text book, Marker	

13	Knitting Calculation 13.1 Define Courses per unit length and Wales per unit length 13.2 Mention Stitch density and Needle gauge 13.3 List the different types of knitting fabric specification 13.4 Calculate Knitting production and efficiency	1. To Calculate Knitting production and efficiency	Text book, Marker	
14	Textile Testing 11.1 Define Moisture Regain (MR) and Moisture Content (MC) 11.2 Calculate Moisture Regain (MR%) and Moisture Content (MC%) 11.3 Relate between MR% and MC% 11.4 Define fiber Trash, Neps and Seed Coat Neps 11.5 Calculate the Trash percentage and cleaning efficiency 11.6 Calculate Nep Removal Efficiency (NRE%) 11.7 Define yarn strength and Count-Strength Product (CSP). 11.8 Calculate tenacity and CSP.	1. To Define Moisture Regain (MR) and Moisture Content (MC) 2. To Calculate the Trash percentage and cleaning efficiency 3. To Calculate Nep Removal Efficiency (NRE%) 4. To Calculate tenacity and CSP.	Text book, Marker	
15	Costing 15.1 Mention the factors affect on Costing 15.2 Calculate the cost of yarn production 15.3 Calculate the cost of woven fabric production 15.4 Calculate the cost of knit fabric production	1. To Mention the factors affect on Costing 2. To Calculate the cost of woven fabric production 3. To Calculate the cost of knit fabric production	Text book, Marker	
Submission of Assignment or Presentation (All		Date:		

Chapters)		
Total Class & Quiz Tests: 4	Total Class:	