RAJIV GANDHI PROUDYOGIKI VISHVAVIDYALAYA (DIPLOMA WING)

BHOPAL T02 DIPLOMA IN TEXTILE TECHNOLOGY

PART A:- PROCESS OF CURRICULUM DEVELOPMENT

LIST OF IDENTIFIED PROFESSIONAL ROLES

1. To apply knowledge of mathematics, science, and engineering.

2. To design and conduct experiments, as well as to analyze and interpret data.

3. To design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

4. To function on multidisciplinary teams.

5. To identify, formulate, and solve engineering problems.

6. To understand professional and ethical responsibility.

7. To communicate effectively.

8. To understand the impact of engineering solutions in a global, economic, environmental, and societal context.

9. To engage in lifelong learning.

10. To use the techniques, skills, and modern engineering tools necessary for engineering practice.

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LOs FORMATION

COURSE NAME: - TEXTILE TESTING AND QUAITY CONTROL II (504)

(Total 100 Hrs. , Total 100 Marks)

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List of COs and Los

CO1: To Understand the basic yarn testing (20Hrs, 20 marks)

LO1: To understand the concept and testing of yarn diameter, count and twist. (10 Hrs., 10 Marks)

LO2: To understand the testing of yarn strength, through different machines. (10 Hrs., 10 Marks)

CO2: To Understand the advance yarn testing (20Hrs, 20 marks)

LO1: To understand the yarn evenness and its measurement through different machines. (10 Hrs. 10 Marks)

LO2: To understand the yarn hairiness and yarn friction and their measurement. (10 Hrs. 10 Marks)

CO3: To Understand the basic fabric testing. (20Hrs, 20 marks)

LO1: To understand the concept of fabric dimensions, fabric weight. (10 Hrs 10 Marks)

LO2: To understand the concept of threads per inch, yarn count from woven fabric, cover factor and crimp. (10 Hrs. 10 Marks)

CO4: To Understand the concept of fabric performance testing. (20Hrs, 20 marks)

LO1: To understand the basic principles and testing of tensile, tearing and bursting strengths along with crease recovery and wear testing of fabric. (10 Hrs. 10 Marks)

LO2: To learn the concept of abrasion resistance, pilling, fabric stiffness, shrinkage and colour fastness testing. (10 Hrs. 10Marks)

CO5: To Understand the statistical quality control. (20 Hrs, 20 marks)

LO1: To understand the concept and measurement of chi square test, test of significance. (10 Hrs, 10 Marks)

LO2: To understand the concept and measurement of different control charts. (10Hrs, 10 Marks)

RGPV (Diploma Wing) Bhopal		COURSE PLAN		Format -2		Sheet No. 1/1	
Course Name		**TEXTILE TESTING AND QUALITY CONTROL II**		Semester		FIFTH	
Branch		TEXTILE TECHNOLOGY	Course Code	504	No. of COs	05	No. of LOs	10
Total Hrs. of Teaching Learning	100	Total Marks	100	Total no. of Assessments	10	Types of Assessments		No. of External Assessments	NIL

		DESCRIPTION OF OUTCOMES			T-L Hrs.	Max. Marks
CO 01	T025041	**To Understand the basic yarn testing**.			20	20
Los	T0250411	To understand the concept and testing of yarn diameter, count and twist.			10	10
	T0250412	To understand the testing of yarn strength, through different machines.			10	10
CO 02	T025042	**To Understand the advance yarn testing.**			20	20
Los	T0250421	To understand the yarn evenness and its measurement through different machines.			10	10
	T0250422	To understand the yarn hairiness and yarn friction and their measurement.			10	10
CO 03	T055043	**To Understand the basic fabric testing.**			20	20
Los	T0250431	To understand the concept of fabric dimensions, fabric weight.			10	10
	T0250432	To understand the concept of threads per inch, yarn count from woven fabric, cover factor and crimp.			10	10
CO 04	T025044	**To Understand the concept of fabric performance testing.**			20	20
Los	T0250441	To understand the basic principles and testing of tensile, tearing and bursting strengths along with crease recovery and wear testing of fabric.			10	10
	T0250442	To learn the concept of abrasion resistance, pilling, fabric stiffness, shrinkage and colour fastness testing.			10	10
CO 05	T025045	**To Understand the statistical quality control.**			20	20

Los	T0250451	To understand the concept and measurement of chi square test, test of significance.	10	10
	TO250452	To understand the concept and measurement of different control charts.	10	10

RGPV (DIPLOMA WING) BHOPAL		OCB CURRICULUM FOR THE COURSE			Sheet No. 1/3
Branch		TEXTILE TECHNOLOGY	Semester		FIFTH
Course Code	504		Course Name		**TEXTILE TESTING AND QUALITY CONTROL II**
CourseOutcome 1		**To Understand the basic yarn testing.**		Teach Hrs	Marks
Learning Outcome 1		To understand the concept and testing of yarn diameter, count and twist.		10	10
CONTENT		Yarn diameter and its relation with count, yarn count in different system, conversion from one system to another, determination of yarn count by Knowles balance, quadrant balance and beesley balance. Single and plied yarn twist, twist direction, twist amount, twist determination by various methods, twist strength relationship.			
Method of Assessment		Paper pen test			
Learning Outcome 2		To understand the testing of yarn strength, through different machines.		10	10
CONTENT		Yarn strength- single yarn strength and its determination by CRE, conditions namely tensojet and tensorapid, RKM. Lea strength and its determination by CRT condition, CSP, relation between single yarn strength and lea strengths.			
Method of Assessment		Paper pen test			
CourseOutcome 2		**To Understand the advance yarn testing**			
Learning Outcome 1		To understand the yarn evenness and its measurement through different machines.		10	10
CONTENT		Yarn evenness and its measurement- qualitative method- yarn appearance method. Quantitative method- electronic capacitance tester such as uster evenness tester. Classimate I, II, III.			

Method of Assessment	Paper pen test		
Learning Outcome 2	To understand the yarn hairiness and yarn friction and their measurement.	10	10
CONTENT	Yarn hairiness and yarn friction- measurement by yarn hairiness and friction tester.		
Method of Assessment	Paper pen test		
CourseOutcome 3	**To Understand the basic fabric testing**		
Learning Outcome 1	To understand the concept of fabric dimensions, fabric weight.	10	10
CONTENT	Length, width and thickness measurement through woven fabric, fabric weight.		
Method of Assessment	Paper pen test		
Learning Outcome 2	To understand the concept of threads per inch and crimp.	10	10
CONTENT	Measurement of threads per inch, yarn count from woven fabric, fabric cover factor, measurement of yarn crimp.		
Method of Assessment	Paper pen test		
CourseOutcome 4	**To Understand the concept of fabric performance testing**		
Learning Outcome 1	To understand the basic principles of different strength testing of fabric along with crease recovery and wear testing of fabric.	10	10
CONTENT	Measurement of tensile, tearing and bursting strengths and measurement of crease recovery angle, wear testing of fabric.		
Method of Assessment	Paper pen test		
Learning Outcome 2	To learn the concept of abrasion resistance, pilling, fabric stiffness, shrinkage and colour fastness testing.	10	10
CONTENT	Measurement of abrasion resistance, pilling resistance, fabric stiffness, fabric shrinkage, colour fastness test to light, washing, rubbing and perspiration.		
Method of Assessment	Paper pen test		
CourseOutcome 5	**To Understand the statistical quality control.**		
Learning Outcome 1	To understand the concept and measurement of chi square test, test of significance.	10	10
CONTENT	Chi square test, test of significance i.e., t and z test.		

Method of Assessment	Paper pen test		
Learning Outcome 2	To understand the concept and measurement of different control charts.	10	10
CONTENT	Control charts- mean, range, standard deviation, number of defects, number of defectives, fraction defectives.		
Method of Assessment	Paper pen test		

CO1

LO3   To sketch the lea strength machine diagram and explain its working.

CO2

LO3   To sketch and explain about classimate I and III.

CO3

LO3   To sketch and explain about the crimp measurement machine.

CO4

LO3   To sketch and explain about the bursting strength of fabric.