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.

LOs FORMATION

COURSE NAME: - Textile Testing & Quality Control- 1 (404)
(Total 100 Hrs. , Total 100 Marks)

List of COs and Los

CO1: To study the general details about textile testing and quality control. (20Hrs, 20 marks)

LO1: To understand the general details of textile testing and quality control (10 Hrs,10 Marks)

LO2: To understand the details about sampling and methods of sampling for TTQC (10 Hrs., 10 Marks)

CO2: To study the effect of atmospheric conditions on textile products (20Hrs, 20 marks)

LO1: To study the terms associated with atmospheric conditions (10 Hrs., 10 Marks)

LO2: To study the instruments used for measuring moisture and atmospheric conditions (10 Hrs., 10 Marks)

CO3: To understand the fibre grade, fibre length and fibre maturity.

(20Hrs, 20 marks)

LO1: To understand the determination of fibre grade and fibre length (10 Hrs., 10 Marks)

LO2: To understand the determination of fibre maturity.(10 Hrs., 10 Marks)

CO4: To Understand the determination of fibre fineness and fibre strength.

(20Hrs, 20 marks)

LO1: To understand the determination of fibre fineness (10 Hrs., 10 Marks)

LO2: To understand the determination of fibre strength (10 Hrs., 10Marks)

CO5: To understand the indentification of fibre and testing on Latest instruments

(20 Hrs, 20 marks)

LO1: To understand the identification of various textile fibres

(10 Hrs, 10 Marks)

LO2: To understand the instruments like HVI, Uster and AFIS (10Hrs,10 Marks)

PART B:- CURRICULUM OF TEXTILE TECHNOLOGY

RGPV (Diploma Wing) Bhopal			COURSE PLAN			Format -2		Sheet No. 1/1	
Course Name			**T.T.Q.C.-1**			Semester		FOURTH	
Paper code-7404		TEXTILE TECHNOLOGY		Course Code/	404	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			To study the general details about textile testing and quality control.					22	
Los	T0240411		To understand the general details of textile testing and quality control					06	10
	T0240412		To understand the details about sampling and methods of sampling for TTQC					08	10
	T0240413		**Explain the different methods of sampling for fibre length**					06	07
CO 02			**To study the effect of atmospheric conditions on textile products**					22	20
Los	T0240421		To study the terms associated with atmospheric conditions					06	10
	T0240422		To study the instruments used for measuring moisture and atmospheric conditions					08	10
	T0240423		Determine the moisture regain and moisture content of textile materials					06	07
CO 03			**To understand the fibre grade, fibre length and fibre maturity.**					22	20
Los	T0240431		To understand the determination of fibre grade and fibre length					06	10
	T0240432		To understand the determination of fibre maturity					08	10
	T0240433		Determine the fibre length and fibre maturity by the available method					06	06
CO 04			**To Understand the determination of fibre fineness and fibre strength**					22	
Los	T0240441		To understand the determination of fibre fineness					06	10
	T0240442		To understand the determination of fibre strength					08	10
	T0240443		To determine the fibre fineness and fibre strength					06	15

CO 05		**To understand the indentification of fibre and testing on Latest instruments**	22	20
Los	T0240451	To understand the identification of various textile fibres	06	10
	TO240452	To understand the instruments like HVI, Uster and AFIS	08	10
	TO240453	To identify the various textile fibres by physical methods	06	15

RGPV (DIPLOMA WING) BHOPAL	OCB CURRICULUM FOR THE COURSE	<mark>FORMAT- 3</mark>	Sheet No. 1/3
Branch	TEXTILE TECHNOLOGY	Semester	FOURTH

Course Code/Paper Code-7404	404	Course Name	**T.T.Q.C.-1**		

<mark>CourseOutcome 1</mark>	Student will be able to apply textile testing for quality control		Teach Hrs	Marks
Learning Outcome T0240411	Student will be able to use the general methods of textile testing and quality control		06	10
CONTENT	Destination of TTQC & its importance, Different terms like quality, quality control. Statistisical quality control, quality assurance, quality audit and quality management, objectives of Textile testing			
Method of Assessment	Internal -Paper pen test			
Learning Outcome T0240412	Student will be able to explain the details about sampling and methods of sampling for TTQC		08	10
CONTENT	Selection of sample for testing, meaning of sample and population, Types of samples, methods of sampling for testing fibre, yarn and fabrics			
Method of Assessment	External -Paper pen test			
Learning Outcome T0240413	Student will be able to demonstrate **the different methods of sampling for fibre length**		6	0 7
CONTENT	Lab experiments			
Method of Assessment	Internal – lab assessment			
<mark>CourseOutcome 2</mark>	Student will be able to explain the **effect of atmospheric conditions on textile products**			
Learning Outcome T0240421	Student will be able to explain the terms associated with atmospheric conditions		06	10
CONTENT	Humidity and its importance in textile materials, Moisture regain and moisture content, absolute humidity, relative humidity, standard atmosphere, testing atmosphere,			
Method of Assessment	External -Paper pen test			
Learning Outcome T0240422	Student will be able to demonstrate the use of the instruments for measuring moisture and atmospheric conditions		06	10

CONTENT	measuring of atmospheric conditions, determination of moisture in textile materials by oven and electronic moisture meter, factors affecting measurement of regain, effect of regain on various properties, correct invoice weight		
Method of Assessment	Internal -Paper pen test		
Learning Outcome T0240423	Student will be able to determine the moisture regain and moisture content of textile materials	06	07
CONTENT	**Lab experiments**		
Method of Assessment	Internal – lab assessment		
CourseOutcome 3	Student will be able to **estimate fibre grade, fibre length and fibre maturity.**		
Learning Outcome T0240431	Student will be able to determine of fibre grade and fibre length	6	10
CONTENT	Fibre grade colour, trash and its determination by Shirley Trash Analyser Fibre length measurement by different methods like comb sorter, digital fibrograph and autospan.		
Method of Assessment	Internal -Paper pen test		
Learning Outcome T0240432	Student will be able to estimate the fibre maturity	8	10
CONTENT	Fibre maturity – meaning and the different terms associated with fibre maturity, determination of fibre maturity.		
Method of Assessment	External -Paper pen test		
Learning Outcome T0240433	Determine the fibre length and fibre maturity by the available method (psycho motor domain)	6	6
CONTENT	Lab experiments		
Method of Assessment	Internal – lab assessment		
CourseOutcome 4	Student will be able to **determine of fibre fineness and fibre strength**		
Learning Outcome T0240441	Student will be able to **determine the** fibre fineness		10
CONTENT	Fibre fineness – the associated terms, meaning and determination of fibre fineness by gravimetric method, air flow method		

Method of Assessment	External -Paper pen test		
Learning Outcome T0240442	Student will be able to **determine the** fibre strength	8	10
CONTENT	Fibre strength- differentconditions namely CRL, CRE and CRT, determination of bundle fibre strength by Pressley strength tester and stelometer.		
Method of Assessment	External -Paper pen test		
Learning Outcome T0240443	Student will be able to **estimate the** fibre fineness and fibre strength	6	15
CONTENT	Lab experiments		
Method of Assessment	External – laboratory assessment		
<mark>CourseOut come 5</mark>	Student will be able to operate **Latest instruments to identify fibre**		
Learning Outcome T0240451	Student will be able to identify of various textile fibres	06	10
CONTENT	Identification of various textile fibres like cotton, wool, silk, polyester, nylon and acrylic etc. Quanitative estimation of blends.		
Method of Assessment	External-Paper pen test		
Learning Outcome T0240452	Student will be able to operate the instruments like HVI, Uster and AFIS	08	10
CONTENT	Brief study of HVI high volume instruments, USTER MDTA3 and quick spin system, AFIS – N,L,D and T		
Method of Assessment	External -Paper pen test		
Learning Outcome T0240453	Student will be able to identify the various textile fibres by physical methods(psycho motor domain)	6	15
CONTENT	Demonstration of machinery		
Method of Assessment	External – laboratory assessment		