G-Scheme

M.D. UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATION effective from 2019-20
Bachelor of Technology (Textile Technology)
Third Semester

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Du of l
			L	T	P			Class work	Theory	Practical	Total	(H
1	HSMC-EIE-201G	Entrepreneurial and Industrial Engineeering	3	0	0	3	3	25	75		100	
2	PCC-TT/TC/FAE-201G	Introduction to Textile Industrial Practices	3	0	0	3	3	25	75		100	
3	PCC-TT/TC/FAE-202G	Textile Raw Materials	3	0	0	3	3	25	75		100	
4	PCC-TT-203G	Yarn Manufacture–I	3	0	0	3	3	25	75		100	
5	PCC-TT-204G	Weaving Preparation	3	0	0	3	3	25	75		100	
6	PCC-TT-205G	Fabric Manufacture–I	3	0	0	3	3	25	75		100	
7	LC-TT/TC/FAE-201G	Textile Industrial Survey	0	0	2	2	1	25		25	50	
8	LC-TT/TC/FAE-202G	Fibre Microscopy & Identification	0	0	2	2	1	25		25	50	
9	LC-TT-203G	Spinning Lab–I	0	0	2	2	1	25		25	50	
10	LC-TT-204G	Weaving Lab–I	0	0	2	2	1	25		25	50	
11	*MC-105G	Indian Constitution	0	0	2	2	0	50	-			
	Total						22				800	

*MC- 105G is a mandatory non credit course in which the student will be required passing marks

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M.D. UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATION effective from 2019-20
Bachelor of Technology (Textile Technology)
Fourth Semester

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Class work	Theory	Practical	Total	
1	BSC-MATH-201G	Applied Statistics & Operation Research	3	0	0	3	3	25	75		100	3
2	ESC-TT/TC/FAE-201G	Computer Aided Textile Designing	2	0	2	3	3	25	75		100	3
3	PCC-TT/TC-206 G	Man-Made Fibre Production	3	0	0	3	3	25	75		100	3
4	PCC-TT-207 G	Yarn Manufacture–II	3	0	0	3	3	25	75		100	3
5	PCC-TT-208 G	Fabric Manufacture–II	3	0	0	3	3	25	75		100	3
6	PCC-TT-209 G	Fabric Structure	3	0	0	3	3	25	75		100	3
7	ESC-TT/TC/FAE -202G	Computer Aided Textile Designing Lab	0	0	2	2	1	25		25	50	3
8	LC-TT-205G	Spinning Lab–II	0	0	2	2	1	25		25	50	3
9	LC-TT-206G	Weaving Lab–II	0	0	2	2	1	25		25	50	3
10	LC-TT-207G	Fabric Analysis Lab	0	0	2	2	1	25		25	50	3
11	*MC-108G	Essence of Indian Knowledge Tradition	0	0	2	2	0	50		-		
		Total					22				800	

NOTE: At the end of 4th semester each student has to undergo Practical Training of 4/6 weeks in an Industry/ Institute/ Professional Organization/ Research Laboratory/ training centre etc. and submit typed report along with a certificate from the organization & its evaluation shall be carried out in the 5th Semester.

Director,

*MC- 108G is a mandatory non credit course in which the student will be required passing marks

OF TEXTILE & SCIENCES, BHIWANI

Scheme of Studies and Examination
B.TECH (Textile Technology) – 5th Semester
w.e.f. 2020-21

Sr. No.	Course Code	Course Title	Hours per week			Total Cont act hrs/w eek	Credi t	Examination Schedule (Marks)				Dur atio n of Exa m (Ho urs)
			L	T	P			Inter nal Asses smen t	Exte rnal Exa min atio n	Pr act ical	Tot al	
1	PCC-TT-301G	Yarn Manufacture-III	3	0	0	3	3	25	75	-	100	3
2	PCC-TT-302G	Advanced Weaving Technology-I	3	0	0	3	3	25	75	-	100	3
3	PCC-TT/TC/FAE-303G	Textile Testing	3	0	0	3	3	25	75	-	100	3
4	PEC-I	Elective-I	3	0	0	3	3	25	75	-	100	3
5	OEC-I	Open Elective-I	3	0	0	3	3	25	75	-	100	3
6	OEC-II	Open Elective-II	3	0	0	3	3	25	75	-	100	3
7	LC-TT-301G	Spinning Practical-III	0	0	2	2	1	25	-	25	50	3
8	LC-TT-302G	Weaving Practical-III	0	0	2	2	1	25	-	25	50	3
9	LC-TT/TC/FAE-303G	Textile Testing Practical	0	0	2	2	1	25	-	25	50	3
10	LC-TT-304G	Wet Processing Lab.	0	0	2	2	1	25	-	25	50	3
		Total					22				800	

Note:
1. Choose any one from Elective-I
2. Choose any one from Open Elective-I
3. Choose any one from Open Elective-II

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ELECTIVE-I

Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-I)	PEC-TT/TC-301G	Post Extrusion Operations
2	Professional Elective Course (PEC-I)	PEC-TT-302G	Total Productive Maintenance in Textile Industry
3	Professional Elective Course (PEC-I)	PEC-TT-303G	Waste Management & Pollution Control

OPEN ELECTIVE-I

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-I)	OEC-TT-301G	Textile Chemical Processing
2	Open Elective Course (OEC-I)	OEC-TT-302G	Chemical Processing of Natural Fibres
3	Open Elective Course (OEC-I)	PEC-TC-302G	Chemical Processing of Unconventional Textile Materials

OPEN ELECTIVE-II

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-II)	OEC-TT/TC-303G	Garment Manufacturing Technology
2	Open Elective Course (OEC-II)	OEC-TT/TC-304G	Apparel Quality Evaluation and Standards
3	Open Elective Course (OEC-II)	OEC-TT/TC-305G	Introduction to Fashion and Apparel Industries

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Scheme of Studies and Examination
B.TECH (Textile Technology) – 6th Semester
w.e.f. 2020-21

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Internal Assessment	External Examination	Practical	Total	
1	PCC-TT-303G	Unconventional Systems of Yarn Formation	3	0	0	3	3	25	75	-	100	3
2	PCC-TT-304G	Advanced Weaving Technology-II	3	0	0	3	3	25	75	-	100	3
3	PEC-II	Elective-II	3	0	0	3	3	25	75	-	100	3
4	PEC-III	Elective-III	3	0	0	3	3	25	75	-	100	3
5	OEC-III	Open Elective-III	3	0	0	3	3	25	75	-	100	3
6	HSMC-TT/TC/FAE-301G	Merchandising and Export Management	3	0	0	3	3	25	75	-	100	3
7	LC-TT-305G	Spinning Practical-IV	0	0	2	2	1	25	-	25	50	3
8	LC-TT-306G	Weaving Practical-IV	0	0	2	2	1	25	-	25	50	3
9	LC-TT-307G	Pattern Making and Garment Construction Lab.	0	0	2	2	1	25	-	25	50	3
		Total					21				750	

NOTE: 1. At the end of 6th semester each student has to undergo Practical Training of 6 weeks in an Industry/Mill/ Professional Organization and submit typed report along with a certificate from the organization & its evaluation shall be carried out in the 7th Semester under the course 'Mill Practice' (Course Code PROJ-TT-401G).

2. Choose any one from Elective-II
3. Choose any one from Elective-III
4. Choose any one from Open Elective-III

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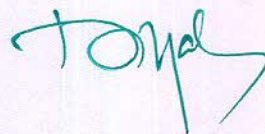OF TEXTILE & SCIENCES, BHIWANI

ELECTIVE-II

Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-II)	PEC-TT-304G	Mechanics of Textile Machinery
2	Professional Elective Course (PEC-II)	PEC-TT-305G	Structure and Properties of Fibres
3	Professional Elective Course (PEC-II)	PEC-TT-306G	Wool Technology

ELECTIVE-III

Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-III)	PEC-TT-307G	Engineering of Textile Structures
2	Professional Elective Course (PEC-III)	PEC-TT-308G	Modeling and Simulation of Fibrous Assemblies
3	Professional Elective Course (PEC-III)	PEC-TT-309G	Sustainable Textile Production

OPEN ELECTIVE-III

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-III)	OEC-TT-306G	Advanced Textile Testing
2	Open Elective Course (OEC-III)	OEC-TT-307G	Statistics for Textile Engineers
3	Open Elective Course (OEC-III)	OEC-TT-308G	Total Quality Management and Six Sigma

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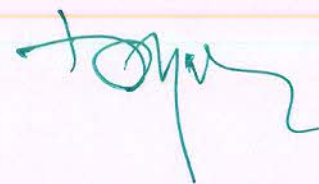THE TECHNOLOGICAL INSTITUTE OF TEXTILE & SCIENCES * BHIWANI *

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M.D. UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATION effective from 2021-22
Bachelor of Technology (Textile Technology)
Seventh Semester

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Class work	Theory	Pract ical	Total	
1	PEC-IV	Elective-IV	3	0	0	3	3	25	75	-	100	3
2	PEC-V	Elective-V	3	0	0	3	3	25	75	-	100	3
3	OEC-IV	Open Elective-IV	3	0	0	3	3	25	75	-	100	3
4	PEC-VI	Elective-VI	0	0	2	2	1	25	-	25	50	3
5	PROJ-TT-401G	Mill Practice	0	0	0	0	5	100	-	100	200	Viva
6	PROJ-TT-402G	Seminar	0	0	2	2	0	-	-	-	-	-
7	PROJ-TT-403G	Project Work (Mid Term Evaluation)	0	0	4	4	2	100	-	-	100	Viva
		Total					17				650	

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ELECTIVE-IV

Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-IV)	PEC-TT-401G	Process Control in Spinning
2	Professional Elective Course (PEC-IV)	PEC-TT-402G	Process Control in Weaving
3	Professional Elective Course (PEC-IV)	PEC-TT-403G	Soft Computing in Textiles

ELECTIVE-V

Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-V)	PEC-TT-404G	Multi Fibre Spinning
2	Professional Elective Course (PEC-V)	PEC-TT/TC-405G	Nonwoven Technology
3	Professional Elective Course (PEC-V)	PEC-TT-406G	Clothing Science

OPEN ELECTIVE-IV

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-IV)	OEC-TT/TC-401G	Production and Operation Management in Textile
2	Open Elective Course (OEC-IV)	OEC-TT/TC-402G	Finance, Material and Human Resource Management
3	Open Elective Course (OEC-IV)	OEC-TT/TC/FAE-403G	Fashion Retailing and Promotion

ELECTIVE-VI

Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-VI)	LE-TT-401G	Spinning Practical – V
2	Professional Elective Course (PEC-VI)	LE-TT-402G	Weaving Practical – V
3	Professional Elective Course (PEC-VI)	LE-TT-403G	Soft Computing Practical

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M.D. UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATION effective from 2021-22
Bachelor of Technology (Textile Technology)
Eighth Semester

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Class work	Theory	Practical	Total	
1	PEC-VII	Elective-VII	3	0	0	3	3	25	75	-	100	3
2	OEC-V	Open Elective-V	3	0	0	3	3	25	75	-	100	3
3	OEC-VI	Open Elective-VI	3	0	0	3	3	25	75	-	100	3
4	PROJ-TT-402G	Seminar	0	0	2	2	2	200	-	-	200	-
5	PROJ-TT-404G	Project Work	0	0	12	12	6	100	-	100	200	Viva
Total							17				700	

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ELECTIVE-VII

Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-VII)	PEC-TT-407G	Textile Costing
2	Professional Elective Course (PEC-VII)	PEC-TT-408G	Textile Composites
3	Professional Elective Course (PEC-VII)	PEC-TT-409G	Mill Organization and Economics of Textile Processes

OPEN ELECTIVE-V

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-V)	OEC-TT/TC/FAE-404G	High Performance Fibres
2	Open Elective Course (OEC-V)	OEC-TT-405G	Protective Clothing
3	Open Elective Course (OEC-V)	OEC-TT-406G	Smart and Functional Clothing

OPEN ELECTIVE-VI

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-VI)	OEC-TT/TC-407G	Technical Textiles
2	Open Elective Course (OEC-VI)	OEC-TT-408G	Industrial Textiles
3	Open Elective Course (OEC-VI)	OEC-TT-409G	Medical and Geo Textiles

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M.D. UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATION effective from 2019-20
Bachelor of Technology (Textile Chemistry)
Third Semester

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Class work	Theory	Practical	Total	
1	BSC-MATH-201G	Applied Statistics & Operation Research	3	0	0	3	3	25	75		100	3
2	BSC-TC-202G	Physical & Organic Chemistry	3	0	0	3	3	25	75		100	3
3	ESC-TC-203G	Polymer Science & Technology	3	0	0	3	3	25	75		100	3
4	PCC-TT/TC/FAE-201G	Introduction to Textile Industrial Practices	3	0	0	3	3	25	75		100	3
5	PCC-TT/TC/FAE-202G	Textile Raw Materials	3	0	0	3	3	25	75		100	3
6	PCC-TC/FAE-203G	Yarn Formation	3	0	0	3	3	25	75		100	3
7	LC-TT/TC/FAE-201G	Textile Industrial Survey	0	0	2	2	1	25		25	50	3
8	LC-TT/TC/FAE-202G	Fibre Microscopy & Identification	0	0	2	2	1	25		25	50	3
9	LC-TC/FAE-203G	Yarn Formation Lab	0	0	2	2	1	25		25	50	3
10	BSC-TC-203G	Qualitative Analysis of Organic Compounds	0	0	2	2	1	25		25	50	3
11	*MC-105G	Indian Constitution	0	0	2	2	0	50				
	TOTAL CREDITS						22				800	

*MC- 105G is a mandatory non credit course in which the student will be required passing marks

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M.D. UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATION effective from 2019-20
Bachelor of Technology (Textile Chemistry)
Fourth Semester

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Class work	TheoryPr actical	Total		
1	HSMC-EIE-201G	Entrepreneurial and Industrial Engineering	3	0	0	3	3	25	75	100		3
2	ESC-TT/TC/FAE-201G	Computer Aided Textile Designing	3	0	0	3	3	25	75	100		3
3	ESC-TC-204G	Unit Organic Process & Chemical Engineering	3	0	0	3	3	25	75	100		3
4	PCC-TT/TC-206G	Man-Made Fibre Production	3	0	0	3	3	25	75	100		3
5	PCC-TC/FAE-204G	Fabric Formation	3	0	0	3	3	25	75	100		3
6	PCC-TC-205G	Preparatory Wet Processing	3	0	0	3	3	25	75	100		3
7	ESC-TT/TC/FAE - 202G	Computer Aided Textile Designing Lab	0	0	2	2	1	25	25	50		3
8	LC-TC/FAE-204G	Fabric Formation Lab	0	0	2	2	1	25	25	50		3
9	LC-TC-205G	Preparatory Wet processing Lab	0	0	2	2	1	25	25	50		3
10	LC-TC-206G	Analytical Chemistry Lab	0	0	2	2	1	25	25	50		3
11	*MC-108G	Essence of Indian Knowledge Tradition	0	0	2	2	0	50				
	TOTAL CREDITS						22			800		

NOTE: At the end of 4th semester each student has to undergo Practical Training of 4/6 weeks in an Industry/ Institute/ Professional Organization/ Research Laboratory/ training centre etc. and submit typed report along with a certificate from the organization & its evaluation shall be carried out in the 5th Semester.

*MC- 108G is a mandatory non credit course in which the student will be required passing marks

Scheme of Studies and Examination
B.TECH (Textile Chemistry) – 5th Semester
w.e.f. 2020-21

S N.	Category	Course Code	Course Title	Hours per week			Total Contact hrs /week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assessment	External Examination	Practical	Total	
1	Professional Core Course	PCC-TC-301G	Technology of Dyeing	3	0	0	3	3	25	75		100	3
2	Professional Core Course	PCC-TC-302G	Textile Printing	3	0	0	3	3	25	75		100	3
3	Professional Core Course	PCC-TT/TC/FAE-303G	Textile Testing	3	0	0	3	3	25	75		100	3
4	Professional Elective Courses	PEC-I	Elective-I	3	0	0	3	3	25	75		100	3
5	Open Elective Courses	OEC-I	Open Elective-I	3	0	0	3	3	25	75		100	3
6	Open Elective Courses	OEC-II	Open Elective-II	3	0	0	3	3	25	75		100	3
7	Professional Core Course	LC-TC-301G	Dyeing Lab-I	0	0	2	2	1	25		25	50	3
8	Professional Core Course	LC-TC-302G	Textile Printing Lab	0	0	2	2	1	25		25	50	3
9	Professional Core Course	LC-TT/TC/FAE-303G	Textile Testing Practical	0	0	2	2	1	25		25	50	3
	TOTAL CREDITS							21				750	

Note:

1. Choose any one from Elective-I
2. Choose any one from Open Elective-I
3. Choose any one from Open Elective-II

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S.No.	Category	Course Code	Name of the Course	Preferred Semester
			Elective-I	
1.	PEC-I	PEC-TC-302G	Chemical Processing of Unconventional Textile Materials	V
2.		PEC-TC-303G	Chemical Processing of Woollen Textiles	V
3.		PEC-TT/TC-301G	Post Extrusion Operations	V
			Open Elective-I	
1.	OEC-I	OEC-TC-301G	Textile Design	V
2.		OEC-TC-302G	Textile Colour and Design Concept	V
3.		PEC-TT-303G	Waste Management & Pollution Control	V
			Open Elective-II	
1.	OEC-II	OEC-TT/TC-303G	Garment Manufacturing Technology	V
2.		OEC-TT/TC-304G	Apparel Quality Evaluation and Standards	V
3.		OEC-TT/TC/FAE-305G	Introduction to Fashion and Apparel Industries	V

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Scheme of Studies and Examination
B.TECH (Textile Chemistry) – 6th Semester
w.e.f. 2020-21

S N.	Category	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assessment	External Examination	Practical	Total	
1	Humanities and Social science including Management courses	HSMC-TT/TC/FAE-301G	Merchandising & Export Management	3	0	0	3	3	25	75		100	3
2	Professional Core Course	PCC-TC-304G	Processing of Synthetics & Blends	3	0	0	3	3	25	75		100	3
3	Professional Core Course	PCC-TC-305G	Textile Finishing	3	0	0	3	3	25	75		100	3
4	Professional Core Course	PCC-TC-306G	Textile Processing Machinery	3	0	0	3	3	25	75		100	3
5	Professional Elective Course	PEC-II	Elective-II	3	0	0	3	3	25	75		100	3
6	Open Elective Courses	OEC-III	Open Elective-III	3	0	0	3	3	25	75		100	3
7	Professional Core Course	LC-TC -304G	Dyeing Lab-II	0	0	2	2	1	25		25	50	3
8	Professional Core Course	LC-TC-305G	Characterisation and Evaluation of Dyed & Finished Textiles	0	0	2	2	1	25		25	50	3
9	Professional Core Course	LC-TC-306G	Technical Analysis Lab	0	0	2	2	1	25		25	50	3
	TOTAL CREDITS							21				750	

Note: 1. At the end of 6th semester each student has to undergo Practical Training of 6 weeks in a Mill/Industry and submit typed report along with a certificate from the organization & its evaluation shall be carried out through viva in the 7th Semester.

2. Choose any one from Elective-II
3. Choose any one from Open Elective-III

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S.No.	Category	Course Code	Name of the Course	Preferred Semester
Elective-II				
1.	PEC-II	PEC-TC-304G	Textile Chemical Testing	VI
2.		PEC-TC-305G	Textile Auxiliaries	VI
3.		PEC-TC-306G	Chemistry of Dyes	VI
Open Elective-III				
1.	OEC-III	OEC-TC-306G	Garment Processing & Quality Control	VI
2.		PEC-TT-305G	Structure and Properties of Fibres	VI
3.		OEC-TC-307G	Coating & Laminating of Textiles	VI

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M.D. UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATION effective from 2021-22
4 year Curriculum structure
Undergraduate Degree in Engineering & Technology
Branch / Course: Bachelor of Technology (Textile Chemistry)
Total credits (4 year course) 160
Seventh Semester

Sr No.	Category	Course Code	Course Title	Hours per week L	T	P	Total Contact hrs/week	Credit	Examination Schedule (Marks) Class work	Theory	Practical	Total	Duration of Exam (Hours)
1	Professional Elective Courses	PEC-III	Elective-III	3	0	0	3	3	25	75	-	100	3
2	Professional Elective Courses	PEC-IV	Elective-IV	3	0	0	3	3	25	75	-	100	3
3	Open Elective Courses	OEC-IV	Open Elective-IV	3	0	0	3	3	25	75	-	100	3
4	Professional Core Course	LC-TC-401G	Colour Measurement & CCM Lab	1	0	3	4	2	25	-	25	50	3
5	Project/Internship	PROJ-TC-401G	Mill Practice (Evaluation)	0	0	0	0	5	100	-	100	200	Viva
6	Project/Internship	PROJ-TC-402G	Seminar	0	0	2	2	-	-	-	-	-	-
7	Project/Internship	PROJ-TC-403G	Project Work (Mid Term Evaluation)	0	0	4	4	2	100	-	-	100	Viva
	TOTAL CREDITS							18	300	225	125	650	

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S.No.	Category	Course Code	Name of the Course	Preferred Semester
Elective-III				
1.	PEC-III	PEC-TC-401G	Colour Measurement & Computer Colour Matching	VII
2.		PEC-TC-402G	Theory of Colouration of Textiles	VII
3.		PEC-TC-403G	Sustainable Textile Chemical Processing	VII
Elective-IV				
1.	PEC-IV	PEC-TC-404G	Developments in Textile Chemical Processing	VII
2.		PEC-TC-406G	Advance Chemical Processing	VII
3.		PEC-TC-407G	Emerging trends in Chemical Processing of Textiles	VII
Open Elective-IV				
1.	OEC-IV	OEC-TT/TC-401G	Production and Operation Management in Textile	VII
2.		OEC-TT/TC-402G	Finance, Material & Human Resource Management	VII
3.		OEC-TT/TC/FAE-403G	Fashion Retailing and Promotion	VII

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M.D. UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATION effective from 2021-22
4 year Curriculum structure
Undergraduate Degree in Engineering & Technology
Branch / Course: Bachelor of Technology (Textile Chemistry)
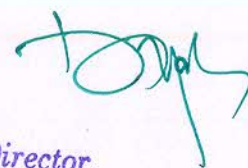### Total credits (4 year course) 160
Eighth Semester

Sr No.	Category	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Class work	Theory	Practical	Total	
1	Professional Elective Courses	PEC-V	Elective-V	3	0	0	3	3	25	75		100	3
2	Professional Elective Courses	PEC-VI	Elective-VI	3	0	0	3	3	25	75		100	3
3	Open Elective Courses	OEC-V	Open Elective-V	3	0	0	3	3	25	75		100	3
4	Project/Internship	PROJ-TC-402G	Seminar	0	0	4	4	2	200			200	Presentation
5	Project/Internship	PROJ-TC-404G	Project Work (Final Evaluation)	0	0	12	12	6	100		100	200	Viva
TOTAL CREDITS								17	375	225	100	700	

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S.No.	Category	Course Code	Name of the Course	Preferred Semester
			Elective-V	
1.		PEC-TC-408G	Process & Quality Control in Chemical Processing	VIII
2.	PEC-V	PEC-TC-409G	Energy Conservation in Wet Processing	VIII
3.		PEC-TC-410G	Textile Process House Management	VIII
			Elective-VI	
1.		PEC-TC-411G	Environmental Aspects of Textile Processing	VIII
2.	PEC-VI	PEC-TC-412G	Eco-friendly Processing & Manufacturing of Textiles	VIII
3.		PEC-TT/TC-405G	Non-Woven Technology	VIII
			Open Elective-V	
1.		OEC-TT/TC-407G	Technical Textiles	VIII
2.	OEC-V	OEC-TT/TC/FAE-404G	High Performance Fibres	VIII
3.		OEC-TC/FAE-405G	Sportswear Textiles and Accessories	VIII

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M.D. UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATION effective from 2019-20
Bachelor of Technology (Fashion and Apparel Engineering)
Third Semester

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Class work	Theory	Practical	Total	
1	BSC–MATH–201G	Applied Statistics and Operation Research	3	0	0	3	3	25	75		100	3
2	PCC–TT/TC/FAE–201G	Introduction to Textile Industrial Practices	3	0	0	3	3	25	75		100	3
3	PCC–TT/TC/FAE–202G	Textile Raw Materials	3	0	0	3	3	25	75		100	3
4	PCC-TC/FAE-203G	Yarn Formation	3	0	0	3	3	25	75		100	3
5	PCC-FAE-205G	Traditional Indian Textiles and Embroideries	3	0	0	3	3	25	75		100	3
6	PCC-FAE-206G	Apparel Production-I	3	0	0	3	3	25	75		100	3
7	LC-TT/TC/FAE-201G	Textile Industrial Survey	0	0	2	2	1	25		25	50	3
8	LC-TT/TC/FAE-202G	Fibre Microscopy & Identification	0	0	2	2	1	25		25	50	3
9	LC-TC/FAE-203G	Yarn Formation Lab	0	0	2	2	1	25		25	50	3
10	LC-FAE-204G	Traditional Indian Textiles and Embroideries Lab	0	0	2	2	1	25		25	50	3
11	*MC–105G	Indian Constitution	0	0	2	2	0	50				
						TOTAL CREDITS	22				800	

*MC 105G is a mandatory non credit course in which the student will be required passing marks in class work.

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SCHEME OF STUDIES AND EXAMINATION effective from 2019-20
Bachelor of Technology (Fashion and Apparel Engineering)
Fourth Semester

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Class work	Theory	Practical	Total	
1	HSMC–EIE–201G	Entrepreneurial and Industrial Engineering	3	0	0	3	3	25	75		100	3
2	ESC–TT/TC/FAE–201G	Computer Aided Textile Designing	3	0	0	3	3	25	75		100	3
3	PCC–TC/FAE–204 G	Fabric Formation	3	0	0	3	3	25	75		100	3
4	PCC–FAE–207 G	Apparel Merchandising	3	0	0	3	3	25	75		100	3
5	PCC–FAE–208 G	Colour and Design Concepts	3	0	0	3	3	25	75		100	3
6	PCC–FAE–209 G	Apparel Production-II	3	0	0	3	3	25	75		100	3
7	ESC–TT/TC/FAE –202G	Computer Aided Textile Designing Lab	0	0	2	2	1	25		25	50	3
8	LC–TC/FAE–204G	Fabric Formation Lab	0	0	2	2	1	25		25	50	3
9	LC–FAE–205G	Colour and Design Lab	0	0	2	2	1	25		25	50	3
10	LC–FAE–206G	Garment Manufacturing Lab	0	0	2	2	1	25		25	50	3
11	*MC–108G	Essence of Indian Knowledge Tradition	0	0	2	2	0	50				
	TOTAL CREDITS						22				800	

NOTE: At the end of 4th semester each student has to undergo Practical Training of 4/6 weeks in an Industry/ Institute/ Professional Organization/ Research Laboratory/ training centre etc. and submit typed report along with a certificate from the organization & its evaluation shall be carried out in the 5th Semester.

*MC-108G is a mandatory non credit course in which the student will be required passing marks in class

Scheme of Studies and Examination
B.TECH (Fashion and Apparel Engineering) – 5th Semester
w.e.f. 2020-21

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Internal Assessment	External Examination	Practical	Total	
1	PCC-FAE-301G	Industrial Engineering in Apparel Industries	3	0	0	3	3	25	75		100	3
2	PCC-FAE-302G	Garment Production Machine & equipment	3	0	0	3	3	25	75		100	3
3	PCC-TT/TC/FAE-303G	Textile Testing	3	0	0	3	3	25	75		100	3
4	-	Elective-I	3	0	0	3	3	25	75		100	3
5	-	Open Elective-I	3	0	0	3	3	25	75		100	3
6	-	Open Elective-II	3	0	0	3	3	25	75		100	3
7	LC-FAE-301G	Woven and Knit Design Lab	0	0	2	2	1	25		25	50	3
8	LC-FAE-302G	Pattern Making and Apparel Construction Lab-I	0	0	2	2	1	25		25	50	3
9	LC-TT/TC/FAE-303G	Textile Testing Practical	0	0	2	2	1	25		25	50	3
10	LC-FAE-304G	Apparel Design Lab	0	0	2	2	1	25		25	50	3
		Total					22				800	

Note:

1. Choose any one from Elective-I
2. Choose any one from Open Elective-I
3. Choose any one from Open Elective-II

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ELECTIVE-I

Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-I)	PEC-FAE-301G	Digital Fabric design and development
2	Professional Elective Course (PEC-I)	PEC-FAE-302G	Woven and Knit Design
3	Professional Elective Course (PEC-I)	PEC-FAE-303G	Textile Coloration Techniques

OPEN ELECTIVE-I

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-I)	OEC-FAE-301G	Knitting & Knitwear Technology
2	Open Elective Course (OEC-I)	OEC-FAE-302G	Soft Skill and Interpersonal Communication
3	Open Elective Course (OEC-I)	OEC-FAE-303G	Organizational Behavior & HRM

OPEN ELECTIVE-II

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-II)	OEC-FAE-304G	Textile & Garment Design by Surface Ornamentation
2	Open Elective Course (OEC-II)	OEC-FAE-305G	Introduction to Fashion and Apparel Industries
3	Open Elective Course (OEC-II)	OEC-FAE-306G	Evolution of Clothing and Fashion

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Scheme of Studies and Examination
B.TECH (Fashion and Apparel Engineering) – 6th Semester
w.e.f. 2020-21

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Internal Assessment	External Examination	Practical	Total	
1	PCC-FAE-303G	Apparel Production-III	3	0	0	3	3	25	75		100	3
2	PCC-FAE-304G	Automation in Garment Industry	3	0	0	3	3	25	75		100	3
3	-	Elective-II	3	0	0	3	3	25	75		100	3
4	-	Open Elective-III	3	0	0	3	3	25	75		100	3
5	-	Open Elective-IV	3	0	0	5	3	25	75		100	3
6	HSMC-TT/TC/FAE-301G	Merchandising and Export Management	3	0	0	3	3	25	75		100	3
7	LC-FAE-305G	Apparel Draping and Grading Lab	0	0	2	2	1	25		25	50	3
8	LC-FAE-306G	Textile Chemical Processing Lab	0	0	2	2	1	25		25	50	3
9	LC-FAE-307G	Apparel Designing by CAD Lab	0	0	2	2	1	25		25	50	3
10	LC-FAE-308G	Pattern Making and Apparel Construction Lab-II	0	0	2	2	1	25		25	50	3
		Total					22				800	

NOTE:

1. At the end of 6th semester each student has to undergo Practical Training of 6 weeks in an Industry/Export/ Professional Organization and submit typed report along with a certificate from the organization & its evaluation shall be carried out in the 7th Semester under the course 'Garment Industry Practice' (Course Code PROJ-FAE-401G).

2. Choose any one from Elective-II

3. Choose any one from Open Elective-III

4. Choose any one from Open Elective-IV

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ELECTIVE-II

Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-II)	PEC-FAE-304G	Preparatory Wet Processing and Dyeing
2	Professional Elective Course (PEC-II)	PEC-FAE-305G	Visual Merchandising
3	Professional Elective Course (PEC-II)	PEC-FAE-306G	Material Studies

OPEN ELECTIVE-III

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-III)	OEC-FAE-307G	Indian Colored Textile Heritage
2	Open Elective Course (OEC-III)	OEC-FAE-308G	Fabric Structure and Analysis
3	Open Elective Course (OEC-III)	OEC-FAE-309G	Specialty Yarns and Texturing

OPEN ELECTIVE-IV

Sr. No.	Course Category	Course Code	Course Title
1	Open Elective Course (OEC-IV)	OEC-FAE-310G	Fashion Accessories
2	Open Elective Course (OEC-IV)	OEC-FAE-311G	Jewellry Design & Development
3	Open Elective Course (OEC-IV)	OEC-FAE-312G	Structure and Properties of Textiles

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M.D. UNIVERSITY, ROHTAK

SCHEME OF STUDIES AND EXAMINATION effective from 2020-21

Bachelor of Technology (Fashion and Apparel Engineering)

Seventh Semester

Sr No.	Course Code	Course Title	Hours per week			Total contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Class work	Theory	Practical	Total	
1	PEC-FAE-401-403G	Elective-III	3	0	0	3	3	25	75		100	3
2	PEC-FAE-404-406G	Elective-IV	3	0	0	3	3	25	75		100	3
3	OEC-FAE-401-403G	Open Elective-V	3	0	0	3	3	25	75		100	3
4	PROJ-FAE-401G	Industrial Internship (Evaluation)	0	0	0	0	5	100	-	100	200	Viva
5	PROJ-FAE-402G	Seminar	0	0	4	4	2	200	-	-	200	-
6	PROJ-FAE-403G	Project Work (Mid Term Evaluation)	0	0	4	4	2	100	-	-	100	Viva
		Total					18				800	

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Sr No.	Category	Course Code	Course Title
PEC-III			
1.		PEC-FAE-401G	Robotics and Artificial Intelligence in Apparel Industry
2.	Professional Elective Course-III	PEC-FAE-402G	Printing and Finishing of Textile and Apparel
3.		PEC-FAE-403G	Digital Motif Designing and Development
PEC-IV			
1.		PEC-FAE-404G	Textile and Apparel Costing
2.	Professional Elective Course-IV	PEC-FAE-405G	Clothing Comfort Science
3.		PEC-FAE-406G	Research Methodology and Quality control
OEC-V			
1.		OEC-FAE-401G	Fashion Selection
2.	Open Elective Course-V	OEC-FAE-402G	Supply Chain Management
3.		OEC-TT/TC/FAE-403G	Fashion Retailing and Promotion

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M.D. UNIVERSITY, ROHTAK

SCHEME OF STUDIES AND EXAMINATION effective from 2020-21

Bachelor of Technology (Fashion and Apparel Engineering)

Eighth Semester

Sr No.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Class work	Theory	Practical	Total	
1	PEC-FAE-407-409G	Elective-V	3	0	0	3	3	25	75		100	3
2	PEC-FAE-410-412G	Elective-VI	3	0	0	3	3	25	75		100	3
3	OEC-FAE-404-406G	Open Elective-VI	3	0	0	3	3	25	75		100	3
5	PROJ-FAE-404G	Project Work (Final Evaluation)	0	0	12	12	6	100		100	200	Viva
							15				500	

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Sr No.	Category	Course Code	Course Title
		PEC-V	
1.		PEC-FAE-407G	Sustainable Fashion
2.	Professional Elective Course -V	PEC-FAE-408G	Leather Apparel & Accessory Design
3.		PEC-FAE-409G	Digital Apparel & Portfolio Presentation
		PEC-VI	
1.		PEC-FAE-410G	Advance Apparel Construction Techniques
2.	Professional Elective Course -VI	PEC-FAE-411G	Home Textiles
3.		PEC-FAE-412G	Quilt Design and Development
		PEC-VI	
1.		OEC-TT/TC/FAE-404G	High Performance Fibre
2.	Open Elective Course-VI	OEC-TC/FAE-405G	Sportswear Textiles & Accessories
3.		OEC-FAE-406G	High Tech Garments

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B.Tech. (Computer Science and Engineering)
Common with B.Tech. (Information Technology) &
B.Tech. (Computer Science and Information Technology)
Scheme ofStudies/Examination w.e.f. 2019-20
Semester-3

Sr. No.	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Mark of Class work	Theory	Practical	Total	
1	PCC-CSE-201G	Database Management Systems	3	0	0	3	3	25	75		100	3
2	PCC-CSE-203G	Data Structures & Algorithms	3	0	0	3	3	25	75		100	3
3	ESC-CSE-205G	Digital Electronics	3	0	0	3	3	25	75		100	3
4	PCC-CSE-207G	Python Programming	3	0	0	3	3	25	75		100	3
5	BSC-MATH-203G	Mathematics - III (Multivariable Calculus and Differential Equations)	2	0	0	2	2	25	75		100	3
6	HSMC-01G	Economics for Engineers	3	0	0	3	3	25	75		100	3
7	LC-CSE-209G	Database Management Systems LAB	0	0	3	3	1.5	25		25	50	3
8	LC-ESC-211G	Digital Electronics LAB	0	0	3	3	1.5	25		25	50	3
9	LC-CSE-213G	Data Structures & Algorithms LAB Using C	0	0	3	3	1.5	25		25	50	3
10	LC-CSE-215G	Python Programming LAB	0	0	3	3	1.5	25		25	50	3
						Total	23				800	

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B.Tech. (Computer Science and Engineering)
Common with B.Tech. (Information Technology) &
B.Tech. (Computer Science and Information Technology)
Scheme ofStudies/Examination w.e.f. 2019-20
Semester-4

Sr. No.	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Mark of Class work	Theory	Practical	Total	
1	PCC-CSE-202G	Discrete Mathematics	3	1	0	3	4	25	75		100	3
2	PCC-CSE-204G	Computer Organization&Architecture	3	0	0	3	3	25	75		100	3
3	PCC-CSE-206G	OperatingSystem	3	0	0	3	3	25	75		100	3
4	PCC-CSE-208G	ObjectOriented Programming	3	0	0	3	3	25	75		100	3
5	HSMC-02G	Organizational Behaviour	3	0	0	3	3	25	75		100	3
6	*MC-106G	Environmental Sciences	3	0	1	4	0	-	-	-	-	3
7	PCC-CSE-210G	Web Technologies	3	0	0	3	3	25	75		100	3
8	LC-CSE-212G	OperatingSystem LAB	0	0	3	3	1.5	25		25	50	3
9	LC-CSE-214G	ObjectOriented Programming LAB Using C++	0	0	3	3	1.5	25		25	50	3
10.	LC-CSE-216G	Web Technologies Lab	0	0	2	2	1	25		25	50	3
						Total	23				750	

*MC-106G is a mandatory non –credit course in which the students will be required passing marks in theory.

NOTE: At the end of 4th semester each student has to undergo Practical Training of 4/6 weeks in an Industry/ Institute/ Professional Organization/ Research Laboratory/ training centre etc. and submit typed report along with a certificate from the organization & its evaluation shall be carried out in the 5th Semester.

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Scheme of Studies and Examination
B.TECH (Computer Science & Engineering) – 5th Semester
w.e.f. 2020-21

Sr. No.	Category	Course Code	Course Title	L	T	P	Total Contact Hrs. per week	Credit	Mark of Class work	Theory	Practical	Total	Duration of Exam (Hours)
1	Engineering Science Course	ESC-CSE-301G	Microprocessor	3	0	0	3	3	25	75		100	3
2	Professional Core Course	PCC-CSE-303G	Computer Networks	3	0	0	3	3	25	75		100	3
3	Professional Core Course	PCC-CSE-305G	Formal Languages & Automata	3	0	0	3	3	25	75		100	3
4	Professional Core Course	PCC-CSE-307G	Design & Analysis of Algorithms	3	0	0	3	3	25	75		100	3
5	Professional Core Course	PCC-CSE-309G	Programming in Java	3	0	0	3	3	25	75		100	3
6	Professional Elective Course	Refer to Annexure I	Elective–I	3	0	0	3	3	25	75		100	3
7	Engineering Science Course	LC-ESC-321G	Microprocessor Lab	0	0	2	2	1	25	-	25	50	3
8	Professional Core Course	LC-CSE-323G	Computer Networks Lab	0	0	3	3	1.5	25	-	25	50	3
9	Professional Core Course	LC-CSE-325G	Design & Analysis of Algorithms Using C++	0	0	3	3	1.5	25	-	25	50	3
10	Professional Core Course	LC-CSE-327G	Programming in Java Lab	0	0	3	3	1.5	25	-	25	50	3
11	Training	PT-CSE-329G	Practical Training-1	-	-	-	-	-	-	-	* Refer Note 1		
			TOTAL CREDIT					23.5				800	

Note:

1. The evaluation of Practical Training-I will be based on seminar, viva-voce, report submitted by the students. According to performance, the students are awarded grades A, B, C, F. A student who is awarded 'F' grade is required to repeat Practical Training.

2. Choose any one from Elective-1
Excellent: A; Good : B; Satisfactory: C; Not Satisfactory: F

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Scheme of Studies and Examination
B.TECH (Computer Science & Engineering) – 6th Semester
w.e.f. 2020-21

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Mark of Class work	Theory	Practical	Total	
1	Professional Core Course	PCC-CSE-302G	Compiler Design	3	0	0	3	3	25	75		100	3
2	Professional Core Course	PCC-CSE-304G	Artificial Intelligence	3	0	0	3	3	25	75		100	3
3	Professional Core Course	PCC-CSE-306G	Advanced Java	3	0	0	3	3	25	75		100	3
4	Engineering Science Course	ESC-CSE-308G	Mobile and Wireless Communication	3	0	0	3	3	25	75		100	3
5	Professional Elective Course	Refer to Annexure II	Elective-II	3	0	0	3	3	25	75		100	3
6	Professional Elective Course	Refer to Annexure III	Elective-III	3	0	0	3	3	25	75		100	3
7	Project	PROJ-CSE-322G	Project-I	0	0	4	4	2	25		25	50	3
8	Professional Core Course	LC-CSE-324G	Compiler Design Lab	0	0	3	3	1.5	25		25	50	3
9	Professional Core Course	LC-CSE-326G	Artificial Intelligence Lab using python	0	0	3	3	1.5	25		25	50	3
10	Professional Core Course	LC-CSE-328G	Advanced Java Lab	0	0	2	2	1	25		25	50	3
11.	Mandatory Courses	MC-317G	Constitution of India	2	0	0							
			TOTAL					24				800	

*MC-317G is a mandatory non –credit course in which the students will be required passing marks in theory.

NOTE:

1. At the end of 6th semester each student has to undergo Practical Training of 4/6 weeks in an Industry/ Institute/ Professional Organization/ Research Laboratory/ training centre etc. and submit typed report along with a certificate from the organization & its evaluation shall be carried out in the 7th Semester.
2. Choose any one from Elective-II
3. Choose any one from Elective-III

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Annexure I

Elective –I (Professional Elective Course)

1. PEC-CSE-311G:Software Engineering
2. PEC-CSE-313G : System Programming and System Administration
3. PEC-CSE-315G :Digital Image Processing

Annexure II

Elective –II (Professional Elective Course)

1. PEC-CSE-310G:Advanced Database Management System
2. PEC-CSE-312G :Mobile Application Development
3. PEC-CSE-314G:Computer Graphics
4. PEC-CSE-330G :Communication Engineering

Annexure III

Elective –III (Professional Elective Course)

1. PEC-CSE-316G: Distributed System
2. PEC-CSE-318G :Information Technology & Industry Business Skills
3. PEC-CSE-320G : Data Science
4. PEC-CSE-332G :VHDL and Digital Design

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B.Tech (COMPUTER SCIENCE & ENGINEERING)
Scheme of Studies/Examination
Semester 7th
w.e.f. 2021-2022

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assesment	Theory	Practical	Total	
1	Professional Core Course	PCC-CSE-401G	Neural Networks	3	0	0	3	3	25	75		100	3
2	Professional Elective Course	Refer to Annexure IV	Professional Elective –IV	3	0	0	3	3	25	75		100	3
3	Professional Elective Course	Refer to Annexure V	Professional Elective –V	3	0	0	3	3	25	75		100	3
4	Open Elective Course	Refer to Annexure OEC-I	Open Elective –I	3	0	0	3	3	25	75		100	3
5	Professional Core Course	LC-CSE-421G	Neural Networks Lab	0	0	2	2	1	25	-	25	50	3
6	Project	PROJ-CSE-423G	Project-II	0	0	6	6	3	50	-	50	100	3
7	Professional Core Course	PT-CSE-425G	Practical Training-II	0	0	0	1	-	-	-	-	-	-
		TOTAL CREDIT						16	175	300	75	550	

NOTE:

1. Practical Training II: The evaluation of Practical Training-II will be based on seminar, viva-voce, report submitted by the students. According to performance, the students will be awarded grades A, B, C, F. A student who is awarded 'F' grade is required to repeat Practical
Training.

2. Choose one subject from each Professional Elective –IV, Professional Elective –V and Open Elective – I. List of elective subjects is attached as annexures.

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Annexure IV: Professional Elective -IV

1. PEC-CSE-403G: Software Project Management

2. PEC-CSE-405G: Web Mining

3. PEC-CSE-407G: Predictive Analysis

4. PEC-CSE-409G: Information Hiding Techniques

Annexure V: Professional Elective -V

1. PEC-CSE-411G: Network Security and cryptography

2. PEC-CSE-413G: Software Testing

3. PEC-CSE-415G: Cyber Security Threats

4. PEC-CSE-417G: Advanced Computer Architecture

Annexure OEC-I: Open Elective-I

1. OEC-PHY-101G: Material Science

2. OEC-ECE-451-G: Electronic Principles

3. HSMC-08G: Fundamentals of Management

4. CEC-CE-451-G: Disaster Management

5. HSMC-10G: English for Professionals

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B.Tech (COMPUTER SCIENCE & ENGINEERING)
Scheme of Studies/Examination
Semester 8th
w.e.f. 2021-2022

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assesment	Theory	Practical	Total	
1	Professional Core Course	PCC-CSE-402G	Machine Learning	3	0	0	3	3	25	75		100	3
2	Professional Core Course	PCC-CSE-404G	Big Data Analytics	3	0	0	3	3	25	75		100	3
3	Open Elective Course	Refer to Annexure OEC-III	Open Elective-II	3	0	0	3	3	25	75		100	3
4	Professional Core Course	LC-CSE-410G	Big Data Analytics Lab	0	0	0	2	1	25		25	50	3
5	Professional Core Course	LC-CSE-412G	Machine Learning with Python Lab	0	0	2	2	1	25		25	50	3
6	Project	PROJ-CSE-422G	Project-III	0	0	8	4	4	50		50	100	3
		TOTAL CREDIT						15	175	225	100	500	

NOTE:

Choose one subject from open Elective – II. List of elective subjects is attached as annexure.

Annexure OEC-II: Open Elective-II

1. PEC-ME-410G: Quality Engineering

2. OEC-ECE-430G: Wireless Adhoc and Sensor Networks

3. OEC-ECE-452-G: Intelligent Instrumentation for Engineers

4. OEC-CE- 448G: Traffic Engineering and Road Safety

5. OEC-EE-08G: Conventional and Renewable Energy Resources

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B.Tech. (Computer Science and Engineering)
Common with B.Tech. (Information Technology) &
B.Tech. (Computer Science and Information Technology)
Scheme of Studies/Examination w.e.f. 2019-20
Semester-3

Sr. No.	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Mark of Class work	Theory	Practical	Total	
1	PCC-CSE-201G	Database Management Systems	3	0	0	3	3	25	75		100	3
2	PCC-CSE-203G	Data Structures & Algorithms	3	0	0	3	3	25	75		100	3
3	ESC-CSE-205G	Digital Electronics	3	0	0	3	3	25	75		100	3
4	PCC-CSE-207G	Python Programming	3	0	0	3	3	25	75		100	3
5	BSC-MATH-203G	Mathematics - III (Multivariable Calculus and Differential Equations)	2	0	0	2	2	25	75		100	3
6	HSMC-01G	Economics for Engineers	3	0	0	3	3	25	75		100	3
7	LC-CSE-209G	Database Management Systems LAB	0	0	3	3	1.5	25		25	50	3
8	LC-ESC-211G	Digital Electronics LAB	0	0	3	3	1.5	25		25	50	3
9	LC-CSE-213G	Data Structures & Algorithms LAB Using C	0	0	3	3	1.5	25		25	50	3
10	LC-CSE-215G	Python Programming LAB	0	0	3	3	1.5	25		25	50	3
						Total	23				800	

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Sr. No.	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Mark of Class work	Theory	Practical	Total	
1	PCC-CSE-202G	Discrete Mathematics	3	1	0	3	4	25	75		100	3
2	PCC-CSE-204G	Computer Organization&Architecture	3	0	0	3	3	25	75		100	3
3	PCC-CSE-206G	OperatingSystem	3	0	0	3	3	25	75		100	3
4	PCC-CSE-208G	ObjectOriented Programming	3	0	0	3	3	25	75		100	3
5	HSMC-02G	Organizational Behaviour	3	0	0	3	3	25	75		100	3
6	*MC-106G	Environmental Sciences	3	0	1	4	0	-	-	-	-	3
7	PCC-CSE-210G	Web Technologies	3	0	0	3	3	25	75		100	3
8	LC-CSE-212G	OperatingSystem LAB	0	0	3	3	1.5	25		25	50	3
9	LC-CSE-214G	ObjectOriented Programming LAB Using C++	0	0	3	3	1.5	25		25	50	3
10.	LC-CSE-216G	Web Technologies Lab	0	0	2	2	1	25		25	50	3
		Total					23				750	

*MC-106G is a mandatory non –credit course in which the students will be required passing marks in theory.

NOTE: At the end of 4th semester each student has to undergo Practical Training of 4/6 weeks in an Industry/ Institute/ Professional Organization/ Research Laboratory/ training centre etc. and submit typed report along with a certificate from the organization & its evaluation shall be carried out in the 5th Semester.

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Scheme of Studies and Examination
B.TECH (Information Technology) – 5th Semester
w.e.f. 2020-21

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. Per week	Credit	Examination Schedule (Marks)				Duration of Eam (Hours)
				L	T	P			Internal Assessment	External Examination	Practical	Total	
1	Engineering Science Course	ESC-IT-301G	Signals and Systems	3	0	0	3	3	25	75		100	3
2	Professional Core Course	PCC-IT-303G	Web Technology	3	0	0	3	3	25	75		100	3
3	Professional Core Course	PCC-CSE-307G	Design & Analysis of Algorithms (Common with CSE)	3	0	0	3	3	25	75		100	3
4	Professional Core Course	PCC-CSE-309G	Programming in Java (Common with CSE)	3	0	0	3	3	25	75		100	3
5	Professional Elective Course	Refer to Annexure I	Elective –I	3	0	0	3	3	25	75		100	3
6	Professional Core Course	LC-IT-317G	Web Technology Lab	0	0	3	3	1.5	25		25	50	3
7	Professional Core Course	LC-IT-319G	Design & Analysis of Algorithms Lab.	0	0	3	3	1.5	25		25	50	3
8	Professional Core Course	LC-IT-321G	IT Workshop (MATLAB/SCILAB)	0	0	3	3	2	25		25	50	3
9	Professional Core Course	LC-CSE327G	Programming in Java Lab (Common with CSE)	0	0	3	3	1.5	25		25	50	3
10	Training	PT-IT329G	Practical Training – I	-	-	-	-	-	-	-	* Refer Note 1		
	Total Credits/Marks							21.5				700	

Note:

1. The evaluation of Practical Training-I will be based on seminar, viva-voce, report submitted by the students. According to performance, the students are awarded grades A, B, C, F. A student who is awarded 'F' grade is required to repeat Practical Training.

Excellent: A; Good : B; Satisfactory: C; Not Satisfactory: F.

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Scheme of Studies and Examination
B.TECH (Information Technology) – 6th Semester
w.e.f. 2020-21

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. Per week	Credit	Examination Schedule (Marks)				Duration of Eam (Hours)
				L	T	P			Internal Assessment	External Examination	Practical	Total	
1	Professional Core Course	PCC-CSE-304G	Artificial Intelligence (Common with CSE)	3	0	0	3	3	25	75		100	3
2	Professional Core Course	PCC-CSE-303G	Computer Network (Common with CSE)	3	0	0	3	3	25	75		100	3
3	Professional Core Course	PCC-CSE-306G	Advanced Java (Common with CSE)	3	0	0	3	3	25	75		100	3
4	Engineering Science Course	ESC-CSE-308G	Mobile and Wireless Communication (Common with CSE)	3	0	0	3	3	25	75		100	3
5	Professional Elective Course	Refer to Annexure II	Elective-II	3	0	0	3	3	25	75		100	3
6	Professional Elective Course	Refer to Annexure III	Elective-III	3	0	0	3	3	25	75		100	3
7	Project	PROJ-CSE-322G	Project-I	0	0	4	4	2	25		25	50	4
8	Professional Core Course	LC-CSE-326G	Artificial Intelligence Lab using Python (Common with CSE)	0	0	3	3	1.5	25		25	50	3
9	Professional Core Course	LC-CSE-323G	Computer Network LAB (Common with CSE)	0	0	3	3	1.5	25		25	50	3
10	Mandatory Courses	MC-317G	Constitution of India	2	0	0	2						3
	Total Credits/Marks							23				750	

Note:

Each student has to undergo practical training of 6 weeks during summer vacation after 6th semester and its evaluation shall be carried out in 7th Semester.

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Annexure I

Elective –I (Professional Elective Course)

1. PEC-CSE-311G:Software Engineering
2. PEC-CSE-313G : System Programming and System Administration
3. PEC-CSE-315G :Digital Image Processing

Annexure II

Elective –II (Professional Elective Course)

1. PEC-CSE-310G:Advanced Database Management System
2. PEC-CSE-312G :Mobile Application Development
3. PEC-CSE-314G:Computer Graphics

Annexure III

Elective –III (Professional Elective Course)

1. PEC-IT-302G: Information Retrieval
2. PEC-IT-304G : Soft Computing
3. PEC-IT-306G : Internet of things

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MAHARSHI DAYANAND UNIVERSITY, ROHTAK
Scheme of Examination for Semester III (Second Year)
B.Tech (MECHANICAL ENGINEERING)w.e.f. 2019-20

Sr. No.	Category Course Notation	Course Code	Course Title	L	T	P	Total Contact hrs/week	Credit	Mark of Class work	Theory	Practical	Total	Duration of Exam (Hours)
1	Basic Science course	BSC-ME-201G	Physics II(Optics & Waves)	3	0	0	3	3	25	75		100	3
2	Basic Science course	BSC-ME-203G	Mathematics-III	3	1	0	4	4	25	75		100	3
3.	Basic Science course	BSC-BIO-205G	Biology	2	1	0	3	3	25	75		100	3
4.	Engineering Science course	ESC-ECE-207G	Basics of Electronics Engg.	2	0	0	2	2	25	75		100	3
5.	Engineering Science course	ESC-ME-209G	Engineering Mechanics	3	0	0	3	3	25	75		100	3
6.	Engineering Science course	ESC-ME-211G	Basics of Mechanical Engg.	2	0	0	2	2	25	75		100	3
7.	Professional Core courses	PCC-ME-213G	Thermodynamics	3	1	0	4	4	25	75		100	3
8.	Engineering Science course	LC-ME-215G	Basics of MechanicalEngg. lab	0	0	2	2	1	25		25	50	3
			TOTAL CREDIT					22				750	

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MAHARSHI DAYANAND UNIVERSITY, ROHTAK
Scheme of Examination for Semester IV (Second Year)
B.Tech.(MECHANICAL ENGINEERING)w.e.f. 2019-20

Sr. No.	Category Course Notation	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Mark of Class work	Theory	Practical	Total	
1	Professional Core courses	PCC-ME-202G	Applied Thermodynamics	3	1	0	4	4	25	75		100	3
2	Professional Core courses	PCC- ME-204G	Fluid Mechanics	3	1	0	4	4	25	75		100	3
	Professional Core courses	PCC- ME-206G	Strength of materials	3	1	0	4	4	25	75		100	3
4	Professional Core courses	PCC- ME-208G	Materials Engineering	3	0	0	3	3	25	75		100	3
5	Professional Core courses	PCC- ME-210G	Instrumentation & Control	3	0	0	3	3	25	75		100	3
6	Professional Core courses	LC- ME-212G	Applied Thermodynamics Lab	0	0	2	2	1	25		25	50	3
7	Professional Core courses	LC- ME-214G	SOM Lab	0	0	2	2	1	25		25	50	3
8	Professional Core courses	LC- ME-216G	Fluid Mechanics Lab	0	0	2	2	1	25		25	50	3
9	Professional Core courses	LC- ME-218G	Materials Lab	0	0	2	2	1	25		25	50	3
10	Professional Core courses	LC- ME-220G	Instrumentation Lab	0	0	2	2	1	25		25	50	3
11	Mandatory course	*MC-106G	Environment Science	3	0	1	-		25	75		-	4
			TOTAL CREDIT					23				750	

*MC-106G is a mandatory non –credit course in which the students will be required passing marks in theory.

NOTE: At the end of 4th semester each student has to undergo Practical Training of 4/6 weeks in an Industry/ Institute/ Professional Organization/ Research Laboratory/ training centre etc. and submit typed report along with a certificate from the organization & its evaluation shall be carried out in the 5th Semester.

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Scheme of Studies and Examination
B.TECH (Mechanical Engineering) – 5th Semester
w.e.f. 2020-21

S. N.	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P			Internal Assessment	External Examination	Practical	Total	
1	PCC-ME-301G	Computer Aided Design & Manufacturing	3	0	0	0	3	25	75		100	3
2	PCC- ME-303G	Solid Mechanics	3	1	0	4	4	25	75		100	3
3	PCC- ME-305G	Manufacturing Technology-I	3	0	0	3	3	25	75		100	3
4	PCC- ME-307G	Kinematics of Machine	3	0	0	3	3	25	75		100	3
5	PCC- ME-309G	Fluid Machines	3	0	0	3	3	25	75		100	3
6	OEC/HSMC-I	Refer List -I	2	0	0	2	2	25	75		100	3
7	LC-ME-311G	Computer Aided Design & Manufacturing Lab	0	0	2	2	1	25		25	50	3
8	LC-ME-313G	Fluid Machines Lab	0	0	2	2	1	25		25	50	3
9	LC-ME-315G	Kinematics of Machine Lab	0	0	2	2	1	25		25	50	3
10	PT-ME-317G	Practical Training-I	0	0	2	2	0					3
11	MC-315G	Essence of Indian Traditional knowledge										
	TOTAL						21				750	

Note:

1. The evaluation of Practical Training-I will be based on seminar, viva-voce, report submitted by the students. According to performance, the students are awarded grades A, B, C, F. A student who is awarded 'F' grade is required to repeat Practical Training.

Excellent: A; Good : B; Satisfactory: C; Not Satisfactory: F.

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OPEN ELECTIVE COURSES (OEC)/ HUMANITIES AND SOCIAL SCIENCES INCLUDING MANAGEMENT COURSES (HSMC)-LIST-I

LIST-I (Semester -V)

S. No.	Code	Name of Course	No. of Contact Hours	Credits
1.	HSMC-01G	Economics For Engineers	2	2
2.	HSMC-03G	Finance and Accounting	2	2
3.	OEC –ME-301G	Air and Noise Pollution and Control	2	2
4.	OEC –ME-303G	Installation Testing & Maintenance of Electrical Equipments	2	2
5.	OEC –ME-305G	Microprocessor and Interfacing	2	2

Note: Students have to select any one subject from the above list of courses.

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Scheme of Studies and Examination
B.TECH (Mechanical Engineering) – 6th Semester
w.e.f. 2020-21

S. N.	Course Code	Course Title	Hours per week			Total Cont act hrs/w eek	Cre dit	Examination Schedule (Marks)				Du rati on of Ex am (Ho urs)
			L	T	P			Inter nal Asses smen t	Exte rnal Exa min atio n	Pract ical	Total	
1	PCC-ME-302G	Manufacturing Technology-II	3	0	0	3	3	25	75		100	
2	PCC- ME-304G	Design of machine element-I	3	0	0	3	3	25	75		100	
3	PCC- ME-306G	Heat Transfer	3	1	0	4	4	25	75		100	
4	PCC- ME-308G	Dynamics of Machines	3	0	0	3	3	25	75		100	
5	LC-ME-310G	Workshop Lab-I	0	0	3	3	1.5	25		25	50	
6	LC-ME-312G	Workshop Lab-II	0	0	2	2	1	25		25	50	
7	LC-ME-314G	Heat Transfer Lab	0	0	2	2	1	25		25	50	
8	LC-ME-316G	Dynamics of Machines Lab	0	0	2	2	1	25		25	50	
9	PCC-ME-318G	Seminar	0	0	2	2	1	50			50	
10	PEC	Professional Elective Courses(PEC): Refer List -I	3	0	0	3	3	25	75		100	
11	HSMC-II	Refer List -II	2	0	0	2	2	25	75		100	
		TOTAL					23.5				850	

NOTE:

1. Each student has to undergo practical training of 4/6 weeks during summer vacation and its evaluation shall be carried out in the VII semester.

2. Assessment of Practical Training-II, undergone at the end of VI semester, will be based on seminar, viva-voce, report and certificate of practical training obtained by the student from the industry/ Professional organization/ Research Laboratory etc. According to performance letter grades A, B, C, F are to be awarded:

    Excellent: A; Good   : B; Satisfactory:C; notsatisfactory: F.

A student who has been awarded 'F' grade will be required to repeat the practical training.

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PROFESSIONAL ELECTIVE COURSES (PEC) (Semester-VI) LIST-I

S. No.	Code	Name of Course	No. of Contact Hours	Credits
1.	PEC-ME-320G	Internal Combustion Engines & Gas Turbines	3	3
2.	PEC-ME-322G	Welding Technology	3	3
3.	PEC-ME-324G	Air Craft Technology	3	3
4.	PEC-ME-326G	Reliability, Availability & Maintainability	3	3
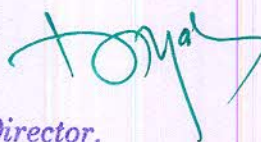
Note: Students will have to select any one out of the list.

HUMANITIES AND SOCIAL SCIENCES INCLUDING MANAGEMENT COURSES (HSMC)-LIST-II.

List-II (Semester-VI)

S. No.	Code	Name of Course	No. of Contact Hours	Credits
1.	HSMC -02G	Organizational Behaviour	2	2
2.	HSMC -04G	Human Resource Management	2	2
3.	HSMC -06G	Industrial Psychology	2	2
4.	HSMC -08G	Fundamentals of Management	2	2

Note: Students have to select any one subject from the above list of courses.

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PT	Practical Training
S	Seminar

MAHARSHI DAYANAND UNIVERSITY, ROHTAK

Scheme of Studies and Examination B.TECH (Mechanical Engineering) – 7th Semester

w.e.f. 2021-22 (Scheme-G)

Course Code	Course Title	Hours per week L	Hours per week T	Hours per week P	Total Contact hrs/week	Credit	Internal Assessment	External Examination Theory	Practical	Total	Duration of Exam (Hours)
PEC	Professional Elective Courses(PEC): Refer List-II	3	0	0	3	3	25	75		100	3
PCC-ME-401G	Design of Machine Element-II	3	0	0	3	3	25	75		100	3
PCC-ME-403G	Entrepreneurship Development	3	0	0	3	3	25	75		100	3
PEC	Professional Elective Courses(PEC): Refer List-III	3	0	0	3	3	25	75		100	3
LC-ME-403G	Workshop Lab-III	0	0	2	2	1	25		25	50	3
PCC-ME-405G	Seminar	0	0	2	2	1	25		25	50	3
PROJ-ME-407G	Project-I	0	0	9	9	4.5	25		25	50	3
PT-ME-409G	Practical Training-II	0	0	2	2	Refer Note:1 (Grading)					
MC-317G	Constitution of India	2	0	0	2	Refer Note:2 (Grading)					
TOTAL CREDIT						18.5	175	300	75	550	3

Note: 1. The evaluation of Practical Training-I will be based on seminar, viva-voce, report submitted by the students. According to performance, the students are awarded grades A, B, C, F. A student who is awarded 'F' grade is required to repeat .

Practical Training. Excellent: A; Good : B; Satisfactory: C; Not Satisfactory: F.

Note: 2 The students will be awarded grades A, B, C & F in Evaluation of Constitution of India. A student who is awarded 'F' grade is required to repeat.

Excellent: A; Good : B; Satisfactory: C; Not Satisfactory: F.

3.Choose any one subject from Professional Elective Courses(PEC) (Semester-VII) LIST-II and LIST-II

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PROFESSIONAL ELECTIVE COURSES(PEC) (Semester-VII) LIST-II

S.No.	Code	Name of Course	No. of Contact Hours	Credits
1.	PEC-ME-401G	Refrigeration & Air Conditioning	3	3
2.	PEC-ME-403G	Project Management	3	3
3.	PEC-ME-405G	Numeric Control of Machine Tools and Robotics	3	3
4.	PEC-ME-407G	Finite Element Analysis	3	3

Note: Students will have to select any one out of the list.

PROFESSIONAL ELECTIVE COURSES(PEC) (Semester-VII) LIST-III

S.No.	Code	Name of Course	No. of Contact Hours	Credits
1.	PEC-ME-409G	Noise and Vibrations	3	3
2.	PEC-ME-411G	Solar Energy Engineering	3	3
3.	PEC-ME-413G	Tribology	3	3
4.	PEC-ME-415G	Composite Materials	3	3

Note: Students will have to select any one out of the list.

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MAHARSHI DAYANAND UNIVERSITY, ROHTAK

Scheme of Studies and Examination B.TECH (Mechanical Engineering) – 8th Semester

w.e.f. 2021-22(Scheme-G)

Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
		L	T	P			Internal Assessment	External ExaminationTheory	Practical	Total	
PCC-ME-402G	Industrial Automation	3	0	0	3	3	25	75		100	3
PEC	Professional Elective Courses(PEC): Refer List-IV	3	0	0	3	3	25	75		100	3
PEC	Professional Elective Courses(PEC): Refer List-V	3	0	0	3	3	25	75		100	3
PEC-	Professional Elective Courses(PEC): Refer List-VI	3	0	0	3	3	25	75		100	3
OEC/HSMC-III	Refer OEC List-III	3	0	0	3	3	25	75		100	3
LC- ME-404G	Workshop Lab-IV	0	0	2	2	1	25		25	50	3
PCC-ME-406G	Seminar	0	0	2	2	1	25		25	50	3
PROJ-ME-408G	Project-II	0	0	10	10	5	25		25	50	3
TOTAL CREDIT						22	200	375	75	650	

1. Choose any one subject from Professional Elective Courses(PEC) (Semester-VIII) LIST-IV

2. Choose any one subject from Professional Elective Courses(PEC) (Semester-VIII LIST-V

3. Choose any one subject from Professional Elective Courses(PEC) (Semester-VIII LIST-VI.

4. Choose any one subject from Open Elective Courses(OEC)/ Humanities and Social Sciences Including Management Courses (HSMC)- (Semester VIII)-LIST-III

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PROFESSIONAL E ELECTIVE COURSES(PEC) (Semester-VIII) LIST-IV

S.No.	Code	Name of Course	No. of Contact Hours	Credits
1.	PEC-ME-402G	Tool Design	3	3
2.	PEC-ME-404G	Plant Maintenance Engg.	3	3
3.	PEC-ME-406G	Design and Optimization of Thermal Energy Systems	3	.3
4.	PEC-ME-408G	Gas Dynamics and Jet Propulsion	3	3

Note: Students will have to select any one out of the list.

PROFESSIONAL ELECTIVE COURSES(PEC) (Semester- VIII) LIST-V

S.No.	Code	Name of Course	No. of Contact Hours	Credits
1.	PEC-ME-412G	Power Plant Engineering	3	3
2.	PEC-ME-414G	Product Design and Development	3	3
3.	PEC-ME-416G	Non Conventional Energy Resources Utilization	3	3
4.	PEC-ME-418G	Introduction to Nanoscience and Nanotechnology	3	3

Note: Students will have to select any one out of the list.

PROFESSIONAL ELECTIVE COURSES(PEC) (Semester-VIII) LIST-VI

S.No.	Code	Name of Course	No. of Contact Hours	Credits
1.	PEC-ME-420G	Automobile Engineering	3	3
2.	PEC-ME-422G	Design of Transmission Systems	3	3
3.	PEC-ME-424G	Alternate Fuels and Energy Systems	3	3
4.	PEC-ME-426G	Optimisation for Engineering Design	3	3

Note: Students will have to select any one out of the list.

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M.D.UNIVERSITY, ROHTAK (HARYANA)
SCHEME OF STUDIES & EXAMINATION FOR
MASTER OF TECHNOLOGY COURSE IN
FASHION & APPAREL ENGINEERING

SEMESTER-I

S.No	Course No.	Subject	Teaching Schedule			Examination Schedule				Duration of Exam
			L	P	Total	Class work	Theory	Practical	Total	
1	MFA 501	Structure & Properties of Fibres, Fabrics and	4	0	4	50	100	0	150	3
2	MFA 503	Modern Technology of Fabric and Apparel Production	4	0	4	50	100	0	150	3
3	MFA 505	Advanced Textile and Garment designing concepts	4	0	4	50	100	0	150	3
4	MFA 507	Computer application in textile & fashion industry	4	0	4	50	100	0	150	3
5	MFA 509	Production Planning & Operation Management	4	0	4	50	100	0	150	3
		TOTAL	20	0	20	250	500		750	

NOTE:
1. The paper setter shall set each theory paper of 100 marks covering the entire syllabus and the same will be evaluated on marks.
2. The Sessionals of Theory/Practical Courses shall also be evaluated on the basis of marks.
3. The choice of students for any elective shall not be binding on the Deptt. to offer it

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FASHION & APPAREL ENGINEERING

SEMESTER-II

S.No	Course No.	Subject	Teaching Schedule			Examination Schedule (Marks)				Duration of Exam
			L	P	Total	Class work	Theory	Practical	Total	
1	MFA 502	Operations Research & Statistics of	4	0	4	50	100	0	150	3
2	MFA 504	Technical Textiles & Smart Garments	4	0	4	50	100	0	150	3
3	MFA 506	Developments in Specialty Yarns & Texturing	4	0	4	50	100	0	150	3
4	MFA 508	Theory & Design of Garment Machinery	4	0	4	50	100	0	150	3
5	MFA 510	Environment Management & Eco-friendly	4	0	4	50	100	0	150	3
6	MFA 512	Modern methods of Apparel Merchandising & Management	4	0	4	50	100	0	150	3
		TOTAL	24	0	24	300	600	0	900	

NOTE:

1. The paper setter shall set each theory paper of 100 marks covering the entire syllabus and the same will be evaluated on marks.
2. The Sessionals of Theory/Practical Courses shall also be evaluated on the basis of marks.
3. The choice of students for any elective shall not be binding on the Deptt. to offer it.

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SCHEME OF STUDIES & EXAMINATION FOR
MASTER OF TECHNOLOGY COURSE IN
FASHION & APPAREL ENGINEERING
SEMESTER-III

S.No	Course No.	Subject	Teaching Schedule			Examination Schedule (Marks)				Duration of Exam
			L	P	Total	Class work	Theory	Practical	Total	
1	MFA 601	Research Methodology	4	0	4	50	100	0	150	3
2	MFA	Elective -I	4	0	4	50	100	0	150	3
3	MFA	Elective -II	4	0	4	50	100	0	150	3
4	MFA 611	Seminar on Advanced Topics	-	3	3	50	-	50	100	3
5	MFA 613	Minor Project	-	4	4	50	-	50	100	3
		TOTAL	20	0	19	250	300		650	

NOTE:

1. The paper setter shall set each theory paper of 100 marks covering the entire syllabus and the same will be evaluated on marks.
2. The Sessionals of Theory/Practical Courses shall also be evaluated on the basis of marks.
3. The choice of students for any elective shall not be binding on the Deptt. to offer it.

Elective -I

MFA – 603: Automation of Apparel Production

MFA – 605: Apparel Production Cad/CAM systems

Elective – II

MFA – 607: Computer-aided Pattern Design

MFA – 609: Utility Properties of cloth, materials

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SCHEME OF STUDIES & EXAMINATION FOR
MASTER OF TECHNOLOGY COURSE IN
FASHION & APPAREL ENGINEERING

SEMESTER-IV

S.No	Course No.	Subject	Teaching Schedule			Examination Schedule (Marks)				Duration of Exam (Hours)
			L	P	Total	Class work	Theory	Practical	Total	
1	MFA 602	Dissertation	-	20	20	300	0	450	750	3

NOTE:

1. The sessionals of Dissertation shall be evaluated on the basis of grades i.e., A+, A, B, C, D & E

2. The Dissertation shall be evaluated by an examination committee consisting of the Head of the Department, Dissertation supervisor and one external examiner. The evaluation shall be based on the above grades.

3. The grading system is defined at the end of the Scheme of the Studies and Examinations.

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OPEN ELECTIVE COURSES(OEC)/ HUMANITIES AND SOCIAL SCIENCES INCLUDING MANAGEMENT COURSES (HSMC)-LIST-III

Students have to select any one Open Elective Course-I from the list of courses.

List-III (Semester VIII)

S.No.	Code	Name of Course	No. of Contact Hours	Credits
1.	OEC –ME-402G	Operation Research	3	3
2.	OEC –ME-410G	Quality Engineering	3	3
3.	OEC –EE-412G	Electrical Power Generation	3	3
4.	OEC-CSE-430G	Computer Communication	3	3
5.	OEC-CE- 448G	Traffic Engineering and Road Safety	3	3
6.	OEC-CE- 450G	Disaster Management	3	3
7.	OEC –ECE-453G	Microprocessor Application in Automobiles Sector	3	3
8.	HSMC-10G	Management Information Systems	3	3

Note: Students will have to select any one out of the list.

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B.Tech (Computer Science and Information Technology)
common with B.Tech (Information Technology)
Scheme of Studies/Examination
Semester 7

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assessment	Theory	Practical	Total	
1	Professional Core Course	PCC-IT-401G	Neural Networks	3	0	0	3	3	25	75		100	3
2	Professional Elective Course	Refer to Annexure IV	Elective–IV	3	0	0	3	3	25	75		100	3
3	Professional Elective Course	Refer to Annexure V	Elective–V	3	0	0	3	3	25	75		100	3
4	Open Elective Course	Refer to Annexure OEC-I	Open Elective–I	3	0	0	3	3	25	75		100	3
5	Professional Core Course	LC-IT-419 G	Neural Networks Lab	0	0	2	2	1	25	-	25	50	3
6	Project	PROJ-IT-422G	Project-II	0	0	6	6	3	50	-	50	100	3
7	Professional Core Course	PT-IT-423G	Practical Training-II	0	0	0	1	-	-	-	-	-	-
		TOTAL CREDIT						16	175	300	75	550	

NOTE:

1. Practical Training II: The evaluation of Practical Training-II will be based on seminar, viva-voce, report submitted by the students. According to performance, the students are awarded grades A, B, C, F. A student who is awarded 'F' grade is required to repeat Practical Training.

2. Choose one subject from each Elective –IV, Elective –V and open Elective – I. List of elective subjects is attached as annexures.

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B.Tech (Computer Science and Information Technology)
common with B.Tech (Information Technology)
Scheme of Studies/Examination
Semester 8

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assessment	Theory	Practical	Total	
1	Professional Core Course	PCC-IT-402G	R Programming	3	0	0	3	3	25	75		100	3
2	Professional Core Course	PCC-IT-403G	Big Data Analysis	3	0	0	3	3	25	75		100	3
3	Open Elective Course	Refer to Annexure OEC-II	Open Elective-II	3	0	0	3	3	25	75		100	3
4	Professional Core Course	LC-IT-420G	R Programming Lab	3	0	0	3	3	25	75		100	3
5	Professional Core Course	LC-IT-4212G	Big Data Analysis Lab	0	0	2	2	1	25		25	50	3
6	Project	PROJ-IT-424G	Project-III	0	0	8	4	4	50		50	100	3
		TOTAL CREDIT						17	175	300	75	550	

NOTE:

Choose one subject from open Elective – II. List of elective subjects is attached as annexures.

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Annexure IV

1. PEC-IT-404G: High Speed Networks

2. PEC-IT-405G: Advanced Computer Architecture

3. PEC-IT-406G: Soft Computing

4. PEC-IT-407G: Software Project Management

Annexure V

1. PEC-IT-408G: Cloud Computing

2. PEC-IT-409G: Analytical Instrumentation

3. PEC-IT-410G: Cyber Security Threats

Annexure OEC-I

1. OEC-IT-411G: Robotics

2. OEC-IT-414G: Disaster Management

3. HSMC-418G: Human Resource Management

4. OEC-IT-415G: Game Theory in Engineering Application

Annexure OEC-II

1. PEC-CS-412G: Cyber Law & Ethics

2. OEC-ECE-413G: Wireless Communication & Adhoc Network

3. OEC-CS-416G: Renewable Energy System

4. OEC-CS- 417G: Knowledge Management

5. OEC-CS-418G: Managing Innovation & Entrepreneurship

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MAHARSHI DAYANAND UNIVERSITY, ROHTAK
SCHEME OF STUDIES & EXAMINATIONS
B.TECH (Electronics and Communication Engineering)
Common with
B.Tech (Electronics and Tele Communication)
SEMESTER –3rd w.e.f. 2019-20

S. No.	Course No.	Course Title	Teaching Schedule			Marks of Class work	Examination Marks		Total	Credit	Duration of Exam	Contact Hrs./wk.
			L	T	P		Theory	Practical				
1	PCC-ECE201G	Electronic Devices	3	0	-	25	75	-	100	3	3	3
2	LC-ECE203G	Electronic Devices lab	0	0	2	25	-	25	50	1	3	2
3	PCC-CSE-221G	Data Structures	3	0	0	25	75	-	100	3	3	3
4	PCC-ECE209G	Signals and Systems	3	0	-	25	75	-	100	3	3	3
5	PCC-ECE211G	Network Theory	3	1	-	25	75	-	100	3	3	3
6	LC-ECE-212G	Network Theory Lab	0	0	2	25	-	25	50	1	3	2
7	LC-ECE-213G	PCB & ELECTRONIC WORKSHOP LAB	0	0	2	50	-	50	100	2	3	2
8	HSM C-01G	Economics for Engineers (Common with CSE)	3	0	0	25	75	-	100	3	3	3
9	*MC-106G	Environmental Science	3	0	1	25	75	-	-	-	3	4
		Total							700	19		27

*MC-106G is a mandatory non –credit course in which the students will be required passing marks in theory.

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MAHARSHI DAYANAND UNIVERSITY, ROHTAK

SCHEME OF STUDIES & EXAMINATIONS
B.TECH (Electronics and Communication Engineering)
Common with
B.Tech (Electronics and Tele Communication)
SEMESTER –4th w.e.f. 2019-20

S. No.	Course No.	Course Title	Teaching Schedule			Marks of Class work	Examination Marks		Total	Credit	Duration of Exam	Contact Hrs./wk.
			L	T	P		Theory	Practical				
1	PCC-ECE202G	Communication System	3	0	-	25	75	-	100	3	3	3
2	LC-ECE204G	Communication System lab	0	0	2	25	-	25	50	1	3	2
3	PCC-ECE206G	Analog Circuits	3	0	-	25	75	-	100	3	3	3
4	LC-ECE208G	Analog Circuits lab	0	0	2	25	-	25	50	1	3	2
5	PCC-ECE205G	Digital Electronics	3	1	-	25	75	-	100	3	3	4
6	LC-ECE207G	Digital Electronics lab	0	0	2	25	-	25	50	1	3	2
7	PCC-ECE210G	Microcontrollers	3	1	-	25	75	-	100	3	3	4
8	LC-ECE-214G	Microcontrollers Lab	0	0	2	25	-	25	50	1	3	.2
9	HSMC-02G	Organizational Behavior	3	0	0	25	75	-	100	3	3	3
10	BSC-MATH-202G	Mathematics-III (Partial differential equations and Numerical methods)	3	1	-	25	75	-	100	4	3	4
		Total							**800**	**23**		**29**

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Scheme of Studies and Examination
B.TECH (Electronics & Communication Engineering) – 5th Semester
w.e.f. 2020-21

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assessment	External Examination	Practical	Total	
1	Professional Core Course	PCC-ECE301G	Electromagnetic Waves	3	1	0	4	4	25	75		100	3
2	Professional Core Course	PCC-ECE303G	Computer Organization & Architecture	3	0	0	3	3	25	75		100	3
3	Professional Core Course	PCC-ECE305G	Communication Engineering	3	1	0	4	4	25	75		100	3
4	Professional Core Course	PCC-ECE307G	Digital Signal Processing	3	1	0	4	4	25	75		100	3
5	Program Elective Course	Refer to Annexure I	Program Elective –I	3	1	0	4	4	25	75		100	3
6	Open Elective Course	Refer to Annexure I	Open Elective-I	3	0	0	3	3	25	75		100	3
7	Professional Core Course	LC-ECE323G	Electromagnetic Waves Lab	0	0	3	3	1.5	25		25	50	3
8	Professional Core Course	LC-ECE325G	Digital Signal Processing Lab	0	0	3	3	1.5	25		25	50	3
9	Training	PT-ECE327G	Practical Training – 1	-	-	-	-	-	-	-	* Refer Note 1		
			TOTAL CREDIT					25				700	

Note:

1. The evaluation of Practical Training-I will be based on seminar, viva-voce, report submitted by the students. According to performance, the students are awarded grades A, B, C, F. A student who is awarded 'F' grade is required to repeat Practical Training.
2. Choose any one from Elective-I
3. Choose any one from open Elective-I

Excellent: A; Good : B; Satisfactory: C; Not Satisfactory: F.

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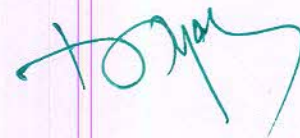OF TEXTILE & SCIENCES, BHIWANI

Elective –I

PEC-ECE309G	Power Electronics	
PEC-ECE311G	Nano electronics	
PEC-ECE313G	Linear IC Applications	
PEC-ECE315G	Scientific computing	

Open Elective-I

OEC-ECE317G	Object Oriented Programming with C++
OEC-ECE319G	Additive Manufacturing
OEC-ECE321G	Measurements and Instrumentation

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Scheme of Studies and Examination
B.TECH (Electronics & Communication Engineering) – 6th Semester
w.e.f. 2020-21

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assessment	External Examination	Practical	Total	
1	Professional Core Course	PCC-ECE302G	Control Systems	3	1	0	4	4	25	75		100	3
2	Professional Core Course	PCC-ECE304G	Computer Network	3	1	0	4	4	25	75		100	3
3	Humanities/ Basic Science	HUM-ECE-306G	Engineering Ethics	3	0	0	3	3	25	75		100	3
4	Professional Core Course	PCC-ECE308G	CMOS Design	3	1	0	4	4	25	75		100	3
5	Program Elective Course	Refer to Annexure II	Program Elective –II	3	1	0	4	4	25	75		100	3
6	Open Elective Course	Refer to Annexure II	Open Elective-II	3	0	0	3	3	25	75		100	3
7	Professional Core Course	LC-ECE322G	Computer Network Lab	0	0	4	4	2	25		25	50	3
8	Professional Core Course	LC-ECE324G	Control System Lab	0	0	3	3	1.5	25		25	50	3
9	Professional Core Course	LC-ECE326G	Mini Project/Electronic Design workshop	0	0	4	4	2	25		25	50	3
	TOTAL CREDIT							27.5				750	

Note:

1. Each student has to undergo practical training of 6 weeks during summer vacation after 6th semester and its evaluation shall be carried out in 7th Semester.
2. Choose any one from Elective-II
3. Choose any one from Open Elective-II

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Elective –II

PEC-ECE310G	Bio-Medical Electronics	
PEC-ECE312G	VHDL and Digital Design	
PEC-ECE314G	Introduction to MEMS	
PEC-ECE316G	Speech and Audio Processing	

Open Elective-II

OEC-ECE318G	Python Programming
OEC-ECE320G	Probability and Stochastic Processes

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MAHARSHI DAYANAND UNIVERSITY, ROHTAK
SCHEME OF STUDIES & EXAMINATIONS
B.TECH (Electronics and Communication Engineering Common with Electronics and Telecommunication Engineering)

SEMESTER –7th w.e.f. 2021-22

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assessment	Theory	Practical	Total	
1	Professional Elective Course	Refer to Annexure-I	Professional Elective-III	3	3	0	6	3	25	75	-	100	3
2	Professional Core Course	PCC-ECE-401G	Fiber Optic Communication	3	3	0	6	3	25	75	-	100	3
3	Professional Core Course	PCC-ECE-402-G	Antenna and Wave	3	3	0	6	3	25	75	-	100	3
4	Professional Elective Course	Refer to Annexure-I	Professional Elective-IV	3	3	0	6	3	25	75	-	100	3
5	Professional Elective Course	Refer to Annexure-I	Professional Elective-V	3	3	0	6	3	25	75	-	100	3
7	Mandatory Course	MC-417-G	Constitution of India	2	0	0	Refer Note:1 (Grading)						
8	LAB	LC-ECE-405-G	Data Communication Networking Lab	0	0	2	2	1.5	25	-	25	50	3
9	Project	PROJ-ECE-407-G	Project Stage-I			4	4	5	50	-	100	150	3
			TOTAL CREDIT					21.5	200	375	125	700	

Note:

1. The students will be awarded grades A, B, C & F in Evaluation of Constitution of India. A student who is awarded 'F' grade is required to repeat.

Excellent: A; Good : B; Satisfactory: C; Not Satisfactory: F.

2. Choose any one subject from Elective-III.
3. Choose any one subject from Elective-IV.
4. Choose any one subject from Elective-V.

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Annexure I

Professional Elective-III

S. No.	Course Code	Course Title
1	PEC-ECE-409-G	Wireless Communication
2	PEC-ECE-410-G	Mobile Communication and Networks

Professional Elective-IV

S. No.	Course Code	Course Title
1	PEC-ECE-411-G	Data Communication Networking & Security
2	PEC-ECE-412-G	Error Correcting Codes

Professional Elective-V

S. No.	Course Code	Course Title
1	PEC-ECE-413-G	Wireless Sensor Networks
2	PEC-ECE-414-G	Radar and Sonar
3	PEC-ETE-401-G	Telecommunication and Switching Networks

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MAHARSHI DAYANAND UNIVERSITY, ROHTAK
SCHEME OF STUDIES & EXAMINATIONS
B.TECH (Electronics and Communication Engineering Common with Electronics and Telecommunication Engineering)
SEMESTER –8ᵗʰ w.e.f. 2021-22

Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
				L	T	P			Internal Assessment	Theory	Practical	Total	
1	Professional Elective Course	Refer to Annexure-II	Professional Elective-VI	3	3	0	6	3	25	75	-	100	3
2	Professional Core Course	PCC-ECE-403-G	Satellite Communication	3	3	0	6	3	25	75	-	100	3
3	Professional Core Course	PCC-ECE-404-G	Microwave theory and technique	3	3	0	6	3	25	75	-	100	3
5	Professional Core Course	LC-ECE-406-G	Wireless & Satellite Communication Lab	0	0	2	2	1.5	25	-	25	50	3
6	Open Elective Course	Refer to Annexure-III	Open Elective	3	0	0	6	3	25	75	-	100	3
7	Project	PROJ-ECE-408-G	Project Work II/ Dissertation	-	-	8	8	6	100	-	150	250	3
			TOTAL CREDIT					19.5	175	300	125	700	

Note:

1. Choose any one subject from Elective-VI.
2. Choose any one subject from Open Elective

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Annexure-II

Professional Elective-VI

S. No.	Course Code	Course Title
1	PEC-ECE-415-G	Embedded System
2	PEC-ECE-416-G	High speed Electronics
3	PEC-ECE-421-G	Mixed Signal Design

Annexure-III

Open Elective Courses-I

S. No.	Course Code	Course Title
1	OEC-ECE-417-G	Renewable Energy Resources
2	OEC-ME-455-G	Composite Materials
3	OEC-BME-419-G	Biosensors
4.	OEC-CE-417-G	Disaster Management
5.	OEC-CE-402-G	Solid & Hazardous waste management
6.	OEC-ME-410-G	Quality Engineering
7.	OEC –ME-402G	Operations Research
8.	OEC –EE-412G	Electrical Power Generation

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