

# Appendix – II

# G-Scheme

**M.D. UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**Bachelor of Technology**  
**Scheme effective from 2018-19**  
**SEMESTER 1<sup>st</sup> (COMMON FOR ALL BRANCHES)**

Scheme

(9)

- 1<sup>st</sup> year
- IT
- TC
- FAE
- ME
- CSE
- ECE
- IT
- BBA

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	Basic Science Course	A	Refer to Table 1	Physics-1	3	1	0	4	4	25	75		100	3
		B	BSC-CH-101G	Chemistry-1	3	1	0	4	4	25	75		100	3
2	Basic Science Course	C	Refer to Table 2	Mathematics-I	3	1	0	4	4	25	75		100	3
		A	ESC-EE-101G	Basic Electrical Engineering	3	1	0	4	4	25	75		100	3
3	Engineering Science Course	B	Refer to Table 3	Programming for Problem Solving	3	0	0	3	3	25	75		100	3
	Engineering Science Course	A	ESC-EE-101G	Basic Electrical Engineering	3	1	0	4	4	25	75		100	3
4	Engineering Science Course	A	ESC-ME-101G	Engineering Graphics & Design	1	0	4	5	3	25		75	100	3
		B	ESC-ME-102G	Workshop Technology	1	0	0	1	1	25	75		100	3
5	Basic Science Course	A	Refer to Table 1	Physics Lab-1	0	0	3	3	1.5	25		25	50	3
		B	BSC-CH-102G	Chemistry Lab-1	0	0	3	3	1.5	25		25	50	3
6	Engineering Science Course	A	ESC-EE-102G	Basic Electrical Engineering Lab	0	0	2	2	1	25		25	50	3



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

		B	Refer to Table 3	Programming in C Lab	0	0	4	4	2	25	
7	Engineering Science Course	B	ESC-ME-103G	Manufacturing Practices Lab	0	0	4	4	2	25	
8	Humanities and Social science including Managemen t courses	C	HSMC-ENG-101G	English	2	0	0	2	2	25	75
<b>TOTAL CREDIT</b>									<b>19.5</b>	<b>175/200</b>	<b>300/375</b>

*[Handwritten signature]*



*[Handwritten signature]*  
 Director  
 THE TECHNOLOGICAL  
 INSTITUTE OF TEXTILE & SCIENCES

**M.D. UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**Bachelor of Technology**  
**Scheme effective from 2018-19**  
**SEMESTER 2<sup>nd</sup> (COMMON FOR ALL BRANCHES)**

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	Basic Science Course	B	Refer to Table 1	Physics-1	3	1	0	4	4	25	75		100	3
		A	BSC-CH-101G	Chemistry-1	3	1	0	4	4	25	75		100	3
2	Basic Science Course	C	Refer to Table 2	Mathematics-II	3	1	0	4	4	25	75		100	3
3	Engineering Science Course	B	ESC-EE-101G	Basic Electrical Engineering	3	1	0	4	4	25	75		100	3
	Engineering Science Course	A	Refer to Table 3	Programming for Problem Solving	3	0	0	3	3	25	75		100	3
4	Engineering Science Course	B	ESC-ME-101G	Engineering Graphics & Design	1	0	4	5	3	25		75	100	3
		A	ESC-ME-102G	Workshop Technology	1	0	0	1	1	25	75		100	3
6	Basic Science Course	B	Refer to Table 1	Physics Lab-1	0	0	3	3	1.5	25		25	50	3
		A	BSC-CH-102G	Chemistry Lab-1	0	0	3	3	1.5	25		25	50	3
7	Engineering Science Course	B	ESC-EE-102G	Basic Electrical Engineering Lab	0	0	2	2	1	25		25	50	3



*[Signature]*  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

		A	Refer to Table 3	Programming in C Lab	0	0	4	4	2	25		25	50	3
8	Humanities and Social science including Management courses	C	HSMC-ENG-102G	Language Lab	0	0	2	2	1	25		25	50	3
9	Engineering Science Course	A	ESC-ME-103G	Manufacturing Practices Lab	0	0	4	4	2	25		25	50	3
<b>TOTAL CREDIT</b>										<b>18.5</b>	<b>200/175</b>	<b>225/300</b>	<b>175/75</b>	<b>600/500</b>

**Note:** Examiner will set nine questions in total. Question one will be compulsory. Question one will have 10 parts of 2.5 marks from all units and remaining eight questions of 12.5 marks each to be set by taking two questions from each unit. The students have to attempt five questions in total, first being compulsory and selecting one from each Unit.

**Important Notes:**

1. Significance of the Course Notations used in this scheme  
C = These courses are common to both the groups (Group-A and Group -B).  
A = Other compulsory courses for Group-A.  
B = Other compulsory courses for Group-B.





Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**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	
<b>Total</b>								23				800	



*[Signature]*  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**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-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	Operating System	3	0	0	3	3	25	75		100	3
4	PCC-CSE-208G	Object Oriented 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	Operating System LAB	0	0	3	3	1.5	25		25	50	3
9	LC-CSE-214G	Object Oriented 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
<b>Total</b>							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.



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**



**Scheme of Studies and Examination**  
**B.TECH (Computer Science & Engineering) – 5<sup>th</sup> 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	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	
<b>TOTAL CREDIT</b>								<b>23.5</b>				<b>800</b>	

**Note:**

- 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.

Choose any one from Elective-I

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

*Director,*

**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**



**Scheme of Studies and Examination**  
**B.TECH (Computer Science & Engineering) – 6<sup>th</sup> 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							
<b>TOTAL</b>								<b>24</b>				<b>800</b>	

\*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



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

### 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

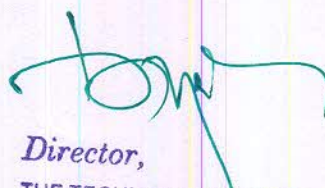
#### Elective –II (Professional Elective Course)

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



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI



**B.Tech (COMPUTER SCIENCE & ENGINEERING)**  
**Scheme of Studies/Examination**  
**Semester 7<sup>th</sup>**  
**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 Assessment	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	-	-	-	-	-	-
<b>TOTAL CREDIT</b>								<b>16</b>	<b>175</b>	<b>300</b>	<b>75</b>	<b>550</b>	

**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.

*[Signature]*  
**Director,**

**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**



**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. OEC-CE-451-G: Disaster Management
5. HSMC-10G: English for Professionals



A handwritten signature in green ink is positioned above a rectangular purple stamp. The stamp contains the text: "Director,", "THE TECHNOLOGICAL INSTITUTE", and "OF TEXTILE & SCIENCES, BHIWANI".

Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**B.Tech (COMPUTER SCIENCE & ENGINEERING)**  
**Scheme of Studies/Examination**  
**Semester 8<sup>th</sup>**  
**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
<b>TOTAL CREDIT</b>								<b>15</b>	<b>175</b>	<b>225</b>	<b>100</b>	<b>500</b>	

**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

*[Signature]*  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.TECH (Electronics and Communication Engineering)**  
**Common with**  
**B.Tech (Electronics and Tele Communication)**  
**SEMESTER –3<sup>rd</sup> 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	HSMC-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
<b>Total</b>									<b>700</b>	<b>19</b>		<b>27</b>

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



*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

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
<b>Total</b>									<b>800</b>	<b>23</b>		<b>29</b>



*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI



**Scheme of Studies and Examination**  
**B.TECH (Electronics & Communication Engineering) – 5<sup>th</sup> 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
	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	
<b>TOTAL CREDIT</b>								<b>25</b>				<b>700</b>	

**Note:**

- 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.
  - Choose any one from Elective-I
  - Choose any one from open Elective-I
- Excellent: A; Good : B; Satisfactory: C; Not Satisfactory: F.**



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

## Annexure I

### 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



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

							per week		ment	min atio n	al	"	(Ho urs)
1	Professional Core Course	PCC- ECE302G	Control Systems	3	1	0	4	4	25	75		100	3
	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
<b>TOTAL CREDIT</b>									<b>27.</b>			<b>750</b>	
									<b>5</b>				

**Note:**

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



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI


## Annexure II

### 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



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

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

**SEMESTER -7<sup>th</sup> 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
<b>TOTAL CREDIT</b>								<b>21.5</b>	<b>200</b>	<b>375</b>	<b>125</b>	<b>700</b>	

**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.

*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



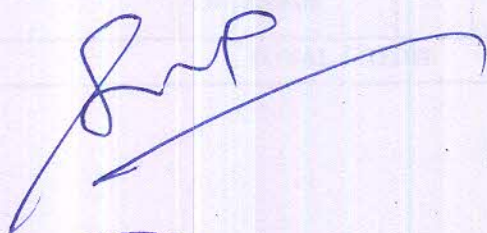
2	PEC-ECE-410-G	Mobile Communication and Networks
---	---------------	-----------------------------------

### 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




Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI



## 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



  
Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**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	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	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 Mechanical Engg. lab	0	0	2	2	1	25		25	50	3
<b>TOTAL CREDIT</b>								<b>22</b>				<b>750</b>	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



# 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
<b>TOTAL CREDIT</b>								<b>23</b>				<b>750</b>	

\*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.



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**Scheme of Studies and Examination**  
**B.TECH (Mechanical Engineering) – 5<sup>th</sup> 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										
<b>TOTAL</b>							<b>21</b>				<b>750</b>	

**Note:**

- 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.**



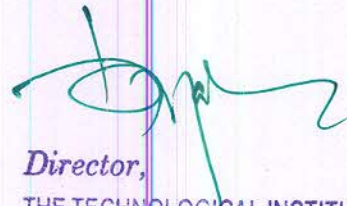
*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**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.



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**Scheme of Studies and Examination**  
**B.TECH (Mechanical Engineering) – 6<sup>th</sup> 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	
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
<b>TOTAL</b>							<b>23.5</b>				<b>850</b>

**NOTE:**

- 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.
- 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.

*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



### 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.



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

# MAHARSHI DAYANAND UNIVERSITY, ROHTAK

## Scheme of Studies and Examination B.TECH (Mechanical Engineering) – 7<sup>th</sup> 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 Examination Theory	Practical	Total	
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)					
<b>TOTAL CREDIT</b>						<b>18.5</b>	<b>175</b>	<b>300</b>	<b>75</b>	<b>550</b>	<b>3</b>

**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-III



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

**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.



  
Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

# MAHARSHI DAYANAND UNIVERSITY, ROHTAK

## Scheme of Studies and Examination B.TECH (Mechanical Engineering) – 8<sup>th</sup> 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 Examination Theory	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
<b>TOTAL CREDIT</b>						<b>22</b>	<b>200</b>	<b>375</b>	<b>75</b>	<b>650</b>	

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



  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI



**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.

*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI



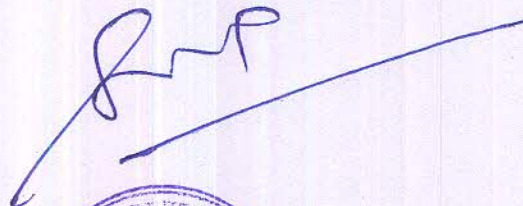
**OPEN ELECTIVE COURSES(OEC)/ HUMANITIES AND SOCIAL SCIENCES INCLUDING MANAGEMENT COURSES (HSMC)-LIST-III**

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.



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

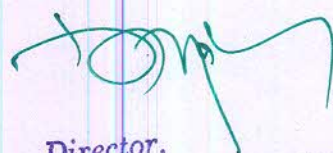
**OPEN ELECTIVE COURSES (OEC)/ HUMANITIES AND SOCIAL SCIENCES INCLUDING MANAGEMENT COURSES (HSMC)-LIST-I**

**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.



  
*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**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				
<b>TOTAL CREDITS</b>							<b>22</b>				<b>800</b>	

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



*Director*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

**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	TheoryPractical	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			
<b>TOTAL CREDITS</b>							<b>22</b>			<b>800</b>	



**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

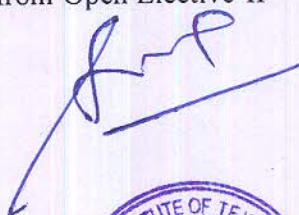
*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI


**Scheme of Studies and Examination**  
**B.TECH (Textile Chemistry) – 5<sup>th</sup> 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
<b>TOTAL CREDITS</b>								<b>21</b>				<b>750</b>	

Note:

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




  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

S.No.	Category	Course Code	Name of the Course	Preferred Semester
<b>Elective-I</b>				
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
<b>Open Elective-I</b>				
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
<b>Open Elective-II</b>				
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



*[Handwritten signature in green ink]*

Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**Scheme of Studies and Examination**  
**B.TECH (Textile Chemistry) – 6<sup>th</sup> 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
<b>TOTAL CREDITS</b>								<b>21</b>				<b>750</b>	

**Note: 1.** At the end of 6<sup>th</sup> 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 7<sup>th</sup> Semester.

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



**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



S.No.	Category	Course Code	Name of the Course	Preferred Semester
<b>Elective-II</b>				
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
<b>Open Elective-III</b>				
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

*[Handwritten signature in blue ink]*



*[Handwritten signature in green ink]*

Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**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			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-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
<b>TOTAL CREDITS</b>								<b>18</b>	<b>300</b>	<b>225</b>	<b>125</b>	<b>650</b>	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

S.No.	Category	Course Code	Name of the Course	Preferred Semester
<b>Elective-III</b>				
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
<b>Elective-IV</b>				
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
<b>Open Elective-IV</b>				
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

*[Handwritten signature]*




*[Handwritten signature]*  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**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
<b>TOTAL CREDITS</b>								<b>17</b>	<b>375</b>	<b>225</b>	<b>100</b>	<b>700</b>	


  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

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

*[Handwritten signature]*

*[Handwritten signature]*  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI



**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)				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	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-TT-203G	Yarn Manufacture-I	3	0	0	3	3	25	75		100	3
5	PCC-TT-204G	Weaving Preparation	3	0	0	3	3	25	75		100	3
6	PCC-TT-205G	Fabric Manufacture-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-TT-203G	Spinning Lab-I	0	0	2	2	1	25		25	50	3
10	LC-TT-204G	Weaving Lab-I	0	0	2	2	1	25		25	50	3
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



Director  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**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.

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



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**Scheme of Studies and Examination**  
**B.TECH (Textile Technology) – 5<sup>th</sup> 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-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

  
Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI





**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

*Director,*

THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI



**Scheme of Studies and Examination**  
**B.TECH (Textile Technology) – 6<sup>th</sup> 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
<b>Total</b>							<b>21</b>				<b>750</b>	

**NOTE:** 1. At the end of 6<sup>th</sup> 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 7<sup>th</sup> 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

*[Signature]*  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



### ELECTIVE-II

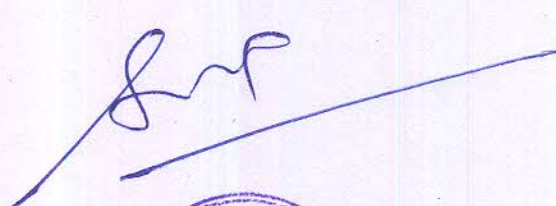
Sr. No	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-II)	PEC-TT-304G	Mechanics of Textile Machinery
2	Professional Elective Course (PEC-II)	PEC-TT-305G	Structure and Properties of Fibres
3	Professional Elective Course (PEC-II)	PEC-TT-306G	Wool Technology

### 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





Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI



**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	Practical	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	

*[Handwritten Signature]*



*[Handwritten Signature]*

Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**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



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**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	

*[Signature]*  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI



**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



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**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				
<b>TOTAL CREDITS</b>							<b>22</b>				<b>800</b>	

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



*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI



**M.D. UNIVERSITY, ROHTAK**  
**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				
<b>TOTAL CREDITS</b>							<b>22</b>				<b>800</b>	

**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



*[Signature]*  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**Scheme of Studies and Examination**  
**B.TECH (Fashion and Apparel Engineering) – 5<sup>th</sup> 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
<b>Total</b>											<b>800</b>	

Note:

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

*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



**ELECTIVE-I**

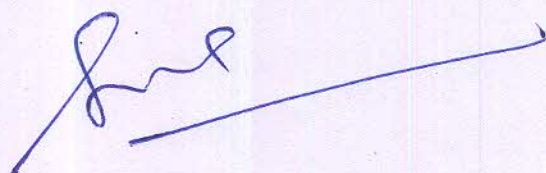
Sr. No.	Course Category	Course Code	Course Title
1	Professional Elective Course (PEC-I)	PEC-FAE-301G	Digital Fabric design and development
2	Professional Elective Course (PEC-I)	PEC-FAE-302G	Woven and Knit Design
3	Professional Elective Course (PEC-I)	PEC-FAE-303G	Textile Coloration Techniques

**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



  
Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**Scheme of Studies and Examination**  
**B.TECH (Fashion and Apparel Engineering) – 6<sup>th</sup> 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 6<sup>th</sup> 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 7<sup>th</sup> 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

*[Signature]*  
Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

*[Signature]*  


**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	Jewelry Design & Development
3	Open Elective Course (OEC-IV)	OEC-FAE-312G	Structure and Properties of Textiles



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**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	



  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI



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



  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**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	
	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	

*[Handwritten signature in blue ink]*

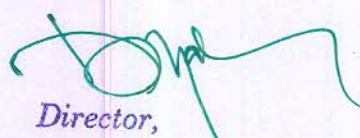


*[Handwritten signature in green ink]*  
Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI



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



  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**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
<b>Total</b>							23				800	



  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**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-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	Operating System	3	0	0	3	3	25	75		100	3
4	PCC-CSE-208G	Object Oriented 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	Operating System LAB	0	0	3	3	1.5	25		25	50	3
9	LC-CSE-214G	Object Oriented 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
<b>Total</b>							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.



**Scheme of Studies and Examination**  
**B.TECH (Information Technology) – 5<sup>th</sup> 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	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		
<b>Total Credits/Marks</b>													<b>700</b>	

**Note:**

- 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.

*Director,*

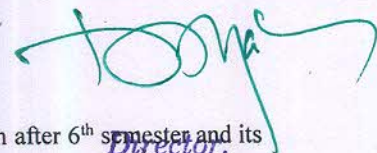
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

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

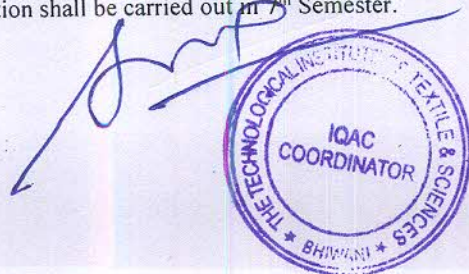
Sr. No.	Category	Course Code	Course Title	Hours per week			Total Contact Hrs. Per week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)	
				L	T	P			Internal Assessment	External Examination	Practical	Total		
1	Professional Core Course	PCC-CSE-304G	Artificial Intelligence (Common with CSE)	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	
<b>Total Credits/Marks</b>														
								<b>23</b>				<b>750</b>		

**Note:**

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

  
Director,

THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI



## 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



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**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	-	-	-	-	-	-
<b>TOTAL CREDIT</b>								<b>16</b>	<b>175</b>	<b>300</b>	<b>75</b>	<b>550</b>	

**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.



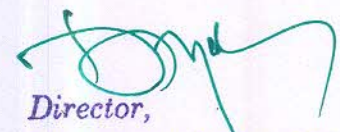
*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**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
<b>TOTAL CREDIT</b>								<b>17</b>	<b>175</b>	<b>300</b>	<b>75</b>	<b>550</b>	

**NOTE:**

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



**Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**





**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

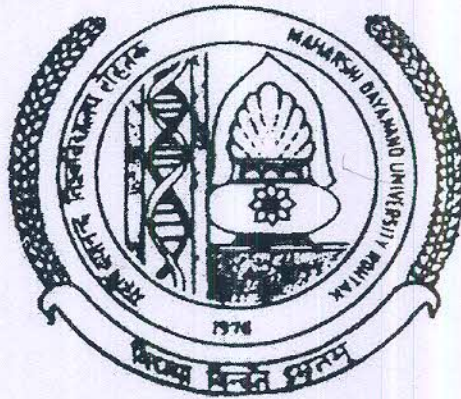
**Annexure OEC-II**

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



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**SCHEME OF EXAMINATION**  
**&**  
**SYLLABI**  
**of**  
**BACHELOR OF BUSINESS ADMINISTRATION**



**FROM THE ACADEMIC SESSION 2014-15**

**MAHARSHI DAYANAND UNIVERSITY  
ROHTAK (HARYANA)**

Session 2014-15



**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**CURRICULUM AND SCHEME OF EXAMINATIONS OF  
BBA PROGRAMME FROM THE SESSION 2014-15**

**FIRST YEAR**

**First Semester**

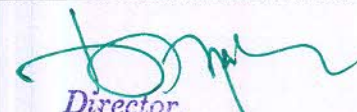
Paper No	Title of Paper(s)	External Marks	Internal Assessment/ Work-shop Marks	Practical Marks	Total Marks
BBAN101	Business Organization	80	20	-	100
BBAN102	Business Mathematics	80	20	-	100
BBAN103	Financial Accounting	80	20	-	100
BBAN104	Computer Fundamentals	50	-	50	100
BBAN105	Business Communication	80	20	-	100
BBAN106	Micro-economics for Business Decisions	80	20	-	100
	TOTAL				600

**Second Semester**

Paper No	Title of Paper(s)	External Marks	Internal Assessment/ Work-shop Marks	Practical Marks	Total Marks
BBAN201	Principles of Management	80	20	-	100
BBAN202	Macro-economic Analysis and Policy	80	20	-	100
BBAN203	Company accounts	80	20	-	100
BBAN204	Computer Applications in Management	50	-	50	100
BBAN205	Organizational Behavior	80	20	-	100
BBAN206	Business Statistics	80	20	-	100
	TOTAL				600

Session 2014-15



  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**CURRICULUM AND SCHEME OF EXAMINATIONS OF  
BBA PROGRAMME FROM THE SESSION 2014-15**

**SECOND YEAR**

**Third Semester**

Paper No	Title of Paper(s)	External Marks	Internal Assessment/ Work-shop Marks	Practical Marks	Total Marks
BBAN301	Cost and Management Accounting	80	20	-	100
BBAN302	Marketing Management	80	20	-	100
BBAN303	Capital Markets	80	20	-	100
BBAN304	Introduction to Information Technology	50	-	50	100
BBAN305	Environment Studies	80	20	-	100
BBAN306	Disaster Management	80	20	-	100
	TOTAL				600

**Fourth Semester**

Paper No	Title of Paper(s)	External Marks	Internal Assessment/ Work-shop Marks	Practical Marks	Total Marks
BBAN401	Financial Management	80	20	-	100
BBAN402	Human Resource Management	80	20	-	100
BBAN403	Business Research Methods	80	20	-	100
BBAN404	Business Laws	80	20	-	100
BBAN405	Data Base Management System	50	-	50	100
BBAN406	Human Rights and Values	80	20	-	100
	TOTAL				600

Session 2014-15



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

Paper No	Title of Paper(s)	Marks	Assessment/ Work-shop Marks	Practical Marks	Total Marks
BBAN501	Production and Materials Management	80	20	-	100
BBAN502	Company Law	80	20	-	100
BBAN503	Indian Business Environment	80	20	-	100
BBAN504	Computer Networking & Internet	50	-	50	100
BBAN505	Presentation Skills and Personality Development	80	20	-	100
BBAN506	Cyber Security	80	20	-	100
BBAN507	Summer Training Report	100	-	-	100
	TOTAL				700

### Sixth Semester

Paper No	Title of Paper(s)	External Marks	Internal Assessment/ Work-shop Marks	Practical Marks	Total Marks
BBAN601	Income Tax	80	20	-	100
BBAN602	System Analysis & Design	80	20	-	100
BBAN603	Foundations of International Business	80	20	-	100
BBAN604	Consumer Protection	80	20	-	100
BBAN605	E-Commerce	50	-	50	100
BBAN606	Project Report	100	-	-	100
BBAN607	Comprehensive Viva-voce	100	-	-	100
	TOTAL				700

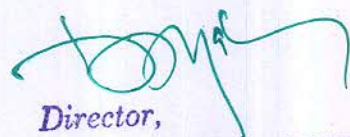
Session 2014-15



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHAWAN

**NOTE:**

- 1 The duration of the end term examination shall be 3 hours
- 2 Immediately after the completion of the IV semester examination, the students shall proceed for their Summer Training of 4 weeks duration. The Summer Training Reports prepared after the completion of shall be assessed in the V semester as a compulsory paper.



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

# F-Scheme

M.D. UNIVERSITY, ROHTAK  
SCHEME OF STUDIES, SYLLABUS & EXAMINATIONS  
B. Tech. 1st Year-2009-10

SEMESTER-I (Common For All Branches)

Course Notation	Course No.	Course Title	Teaching Schedule				Marks of class	Exam. Schedule		Total Marks	Durati Exam.
			L	T	P	Total		Theory	Practical		
C	HUM-102F	Communication Skills in English	3	1	0	4	50	100	-	150	3

C	BTT-102F	Basics of Biotechnology	3	1	0	4	50	100	-	150	3
C	MATH-102F	Mathematics-II	4	1	0	5	50	100	-	150	3
C	PHY-101F	Physics-I	3	1	0	4	50	100	-	150	3
B	ECE-101F	Basics of Electronics	3	0	0	3	50	100	-	150	3

A	CH-101F	Engineering Chemistry	3	1	0	4	50	100	-	150	3
B	CSE-101F	Fundamentals of Computer & Programming in C	3	1	0	4	50	100	-	150	3

A	EE-101F	Electrical Technology	3	1	0	4	50	100	-	150	3
B	ME-101F	Basics of Mechanical Engineering	4	0	0	4	50	100	-	150	3

A	ME-103	Engg. Graphics & Drawing	1	0	3	4	50	-	100	150	4
C	PHY-104F	Physics Lab-II	0	0	2	2	25	-	25	50	3
B	ECE-103 F	Basics of Electronics Lab	0	0	2	2	25	-	25	50	3

A	CH-105F	Engineering Chemistry Lab	0	0	2	2	25	-	25	50	3
B	CSE-105 F	FCPC Lab	0	0	2	2	25	-	25	50	3

A	EE-105F	Electrical Technology Lab	0	0	2	2	25	-	25	50	3
C	GP-102F	General Proficiency	-	-	-	-	-	-	-	-	-
B	ME-107F	Basics of Mech Engg. Lab	0	0	2	2	25	-	25	50	3

A	ME-105 F	Workshop Technology	2	0	2	4	50	-	25	75	3
A	GES 106F	Environmental Studies	1	0	2	3	-	-	-	-	-
Total			1919	45	811	406425	600500	100/200	1100/1125		

Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIMANI

M.D. UNIVERSITY, ROHTAK  
SCHEME OF STUDIES, SYLLABUS & EXAMINATIONS  
B. Tech. 1st Year-2009-10

SEMESTER-I (Common For All Branches)

Course Notation	Course No.	Course Title	Teaching Schedule				Marks of class	Exam. Schedule		Total Marks	Durati Exam.
			L	T	P	Total		Theory	Practical		
C	HUM-101F	Essentials of Communication	3	1	0	4	50	100	-	150	3

C	MATH-101F	Mathematics-I	4	1	0	5	50	100	-	150	3
C	PHY-101F	Physics-I	3	1	0	4	50	100	-	150	3
A	ECE-101F	Basics of Electronics	3	0	0	3	50	100	-	150	3

B	CH-101F	Engineering Chemistry	3	1	0	4	50	100	-	150	3
A	CSE-101F	Fundamentals of Computer & Programming in C	3	1	0	4	50	100	-	150	3

B	EE-101F	Electrical Technology	3	1	0	4	50	100	-	150	3
A	ME-101F	Basics of Mechanical Engineering	3	0	0	3	50	100	-	150	3

B	ME-103F	Engg. Graphics & Drawing	1	0	3	4	50	-	100	150	4
C	PHY-103F	Physics Lab-I	0	0	2	2	25	-	25	50	3
A	CSE-103 F	FCPC Lab	0	0	2	2	25	-	25	50	3

B	EE-103F	Electrical Technology Lab	0	0	2	2	25	-	25	50	3
A	ECE-103F	Basics of Electronics Lab	0	0	2	2	25	-	25	50	3

B	CH-103F	Engineering Chemistry Lab	0	0	2	2	25	-	25	50	3
A	ME-107F	Basics of Mech Engg. Lab	0	0	2	2	25	-	25	50	3

B	ME-105 F	Workshop Technology	2	0	2	4	50	-	25	75	3
A	GES 106F	Environmental Studies	1	0	2	3	-	-	-	-	-
Total			1919	45	811	406425	600500	100/200	1100/1125		





**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.Tech II YEAR (ELECTRONICS & INSTRUMENTATION ENGINEERING)**  
**SEMESTER III**  
**'F' Scheme effective from 2010-11**

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
HUM-201-F OR MATH-201-F	ENGG. ECONOMICS OR MATHEMATICS - III	3 3	1 2	- -	4 5	50	100	-	150	3
HUM-203-F	FUNDAMENTALS OF MANAGEMENT (COMMON FOR ALL BRANCHES)	3	1	-	4	50	100	-	150	3
EE-201-F	ELECTRONICS DEVICES & CIRCUITS(ECE,EI,EE,BEE,IC)	3	1	-	4	50	100	-	150	3
EE-203-F	NETWORK THEORY (ECE,EI,EE,BEE,IC)	3	1	-	4	50	100	-	150	3
EE-205-F	ELECTROMECHANICAL ENERGY CONVERSION (ECE,EI,IC)	3	1	-	4	50	100	-	150	3
CSE-201-F	DATA STRUCTURE USING ' C' (ECE,EI,CSE,IT)	3	1	-	4	50	100	-	150	3
EE-221-F	ELECTRONIC WORKSHOP, PCB DESIGN & CIRCUIT LAB(ECE,EI)	-	-	2	2	25	-	25	50	3
EE-223-F	NETWORK THEORY LAB (ECE,EI,EE,BEE,IC)	-	-	2	2	25	-	25	50	3
EE-225-F	ELECTRICAL WORKSHOP & MACHINE LAB (ECE,EI)	-	-	3	3	50	-	50	100	3
CSE-205-F	DATA STRUCTURE USING 'C' Lab (ECE,EI,CSE,IT)	-	-	2	2	25	-	25	50	3
	<b>TOTAL</b>	<b>18</b>	<b>7</b>	<b>9</b>	<b>33 Or 34</b>	<b>425</b>	<b>600</b>	<b>125</b>	<b>1150</b>	

**NOTE:**

1.Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.



  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**BE. II YEAR (ELECTRONICS & INSTRUMENTATION ENGINEERING)**  
**SEMESTER – IV**  
**Modified 'F' Scheme effective from 2009-10**

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
HUM-201-F OR MATH-201-F	ENGG. ECONOMICS OR MATHEMATICS - III	3	1	-	4	50	100	-	150	3
		3	2	-	5					
EEE 228-F	SIGNALS & SYSTEMS(ECE,EI)	3	-	-	3	50	100	-	150	3
EE-202-F	ANALOG ELECTRONICS(ECE,EI,EE,EEE,IC)	3	1	-	4	50	100	-	150	3
EE-204-F	DIGITAL ELECTRONICS(ECE,EI,EE,EEE,IC)	3	1	-	4	50	100	-	150	3
EI-210-F	ELECTRONICS MEASUREMENT & MEASURING INSTRUMENTS (EI)	3	1	-	4	50	100	-	150	3
EE-208-F	ELECTRO MAGNETIC THEORY (ECE,EI,EE,EEE,IC)	3	1	-	4	50	100	-	150	3
EE-222-F	ANALOG ELECTRONICS LAB(ECE,EI,EE,EEE,IC)	-	-	2	2	25	-	25	50	3
EE-224-F	DIGITAL ELECTRONICS LAB(ECE,EI,EE,EEE,IC)	-	-	2	2	25	-	25	50	3
EI-202-F	ELECTRONICS MEASUREMENT & MEASURING INSTRUMENTS LAB (EI)	-	-	2	2	25	-	25	50	3
MATH-204-F	NUMERICAL METHODS OF COMPUTATIONAL PROGRAMMING LAB(ECE,EI,EE,EEE,IC)	1	1	2	4	25	-	25	50	3
GP-202-F	GENERAL PROFICIENCY (COMMON FOR ALL BRANCHES)	-	-	2	2	50	-	-	50	3
	<b>TOTAL</b>	19	6 Or 7	10	35 Or 36	450	600	100	1150	

Note:

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of Calculator and other materials will not be permitted in the examination.
2. Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the V semester.

*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**



**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.Tech. III YEAR (ELECTRONICS & INSTRUMENTATION ENGINEERING)**  
**SEMESTER V**  
**'F' Scheme effective from 2011-12**

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
EI-301-F	ANALOG ELECTRONICS-II	3	1	-	4	50	100	-	150	3
EI-303-F	ADVANCED MEASUREMENT & MEASURING INSTRUMENTS	3	1	-	4	50	100	-	150	3
EI-305-F	CONTROL ENGINEERING	3	1	-	4	50	100	-	150	3
EE-307-F	ANTENNAS, WAVE PROPAGATION & TV ENGG. (EL,ECE)	3	1	-	4	50	100	-	150	3
EE-309-F	MICROPROCESSORS AND INTERFACING (EL,EI,IC,CSE,IT,EEE,AEI)	3	1	-	4	50	100	-	150	3
EI-311-F	RANDOM VARIABLES & STOCHASTIC PROCESSES	3	1	-	4	50	100	-	150	3
EI-321-F	CONTROL ENGINEERING LAB	-	-	2	2	25	-	25	50	3
EI-325-F	ANALOG ELECTRONICS-II LAB	-	-	2	2	25	-	25	50	3
EE-329-F	MICROPROCESSORS AND INTERFACING LAB (EL,EI,IC,CSE,IT,EEE,AEI)	-	-	2	2	25	-	25	50	3
EI-323-F	PROGRAMMING WITH MATLAB	-	-	2	2	25	-	25	50	3
EE-335-F	PRACTICAL TRAINING-I	-	-	2	2	-	-	-	-	-
<b>TOTAL</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>400</b>	<b>600</b>	<b>100</b>	<b>1100</b>	

Note:

- 1) Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
- 2) Assessment of Practical Training-I, undergone at the end of IV semester, will be based on seminar, viva-voce, report and certificate of practical training obtained by the student from the industry. According to performance letter grades A, B, C, F are to be awarded. A student who is awarded 'F' grade is required to repeat Practical Training.

*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**



**M.D. UNIVERSITY, ROHTAK  
SCHEME OF STUDIES & EXAMINATION**

**B.Tech. III YEAR (ELECTRONICS & INSTRUMENTATION ENGINEERING)**

**SEMESTER – VI**

**'F' Scheme effective from 2012-13**

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
EI-302-F	INDUSTRIAL ELECTRONICS	3	1	-	4	50	100	-	150	3
EI-304-F	COMMUNICATION CIRCUIT & SYSTEMS	3	1	-	4	50	100	-	150	3
EE-312-F	MICROCONTROLLER S & EMBEDDED SYSTEMS (COMMON WITH ECE)	3	1	-	4	50	100	-	150	3
IT-305-F	COMPUTER NETWORKS (EI,ECE, CSE, IT)	3	1	-	4	50	100	-	150	3
EE-310-F	DIGITAL SYSTEM DESIGN ( IC,EE,EEE,ECE,CSE, )	3	1	-	4	50	100	-	150	3
CSE-210-F	COMPUTER ARCHITECTURE & ORGANIZATION (common with 4th sem CSE)	3	1	-	4	50	100	-	150	3
EI-326-F	COMMUNICAION CIRCUITS & SYSTEMS LAB	-	-	2	2	25	-	25	50	3
EE-330-F	DIGITAL SYSTEM DESIGN LAB ( IC,EE,EEE,ECE,CSE, )	-	-	2	2	25	-	25	50	3
CSE-310-F	COMPUTER NETWORKS LAB	-	-	2	2	25	-	25	50	3
EI-324-F	CIRCUIT SIMULATION & PCB DESIGN LAB	-	-	2	2	25	-	25	50	
	<b>TOTAL</b>	<b>18</b>	<b>6</b>	<b>8</b>	<b>32</b>	<b>400</b>	<b>600</b>	<b>100</b>	<b>1100</b>	

1. Note: Students will be allowed to use non-programmable scientific calculator. However, sharing of Calculator will not be permitted in the examination.
2. Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the VII semester.



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**M.D. UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATION**  
**B.Tech. IV YEAR (ELECTRONICS & INSTRUMENTATION ENGINEERING)**

**SEMESTER – VII**

**F' Scheme**  
**EFFECTIVE FROM THE SESSION 2012-13**

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
EI-401-F	PLCs & SCADA SYSTEMS	3	1	-	4	50	100	-	150	3
EI-403-F	Fuzzy Logic & Control	3	1	-	4	50	100	-	150	3
ECE-405-F	Wireless Communication (Common with ECE)	3	1	-	4	50	100	-	150	3
ECE-409-F	DIGITAL SIGNAL PROCESSING (Common with ECE)	3	1	-	4	50	100	-	150	3
	* Open Elective	3	1	-	4	50	100	-	150	3
	* Dept. Elective	3	1	-	4	50	100	-	150	3
ECE-423-F	WIRELESS & SATELLITE COMM. LAB			3	3	50		50	100	3
EI-431-F	PLCs & SCADA SYSTEMS LAB	-	-	2	2	50	-	50	100	3
ECE-429-F	Digital Signal Processing Lab	-	-	2	2	25	-	25	50	3
GPEI-401-F	GENERAL FITNESS FOR THE PROFESSION	-	-	-	-	-	-	50	50	3
EI-435-F	PRACTICAL TRAINING-II	-	-	2	2	-	-	-	-	-
	<b>TOTAL</b>	<b>18</b>	<b>6</b>	<b>9</b>	<b>33</b>	<b>425</b>	<b>600</b>	<b>175</b>	<b>1200</b>	

*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



List of Open Electives

1.	HUM-451-F	Language Skills for Engineers
2.	HUM-453-F	Human Resource Management
3.	HUM-459-F	Renewable Energy Resources and Technology
4.	ME-451-F	Mechatronics Systems
5.	IC-455-F	Intelligent Instrumentation for Engineers
6.	OR-401-F	Operations Research

Dept. Elective:

1	Wireless Sensor Networks	ECE-411-F	5	Advance Control Systems	EE-405-F
2	Mos ICs & Technology	EI-421-F	6	Radar & Sonar Engineering	EI-423-F
3	Optical Communication Systems	ECE-415-F			
4	Reliability of Electronic Systems	EI-437-F			

Note:

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
2. \*Student will be permitted to opt for any one elective run by the other departments. However, the departments will offer only those electives for which they have expertise. The choice of the students for any elective shall not be a binding for the department to offer, if the department does not have expertise.
3. A team consisting of Principal/Director, HOD of concerned department and external examiner appointed by University shall carry out the evaluation of the student for his/her General Fitness for the Profession.
4. Assessment of Practical Training-II, carried out at the end of VI semester, will be based on seminar, viva-voce and project report of the student from the industry. According to performance, letter Grades A, B, C, F are to be awarded. A student who is awarded 'F' grade is required to repeat Practical Training.





Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

M.D. UNIVERSITY, ROHTAK  
SCHEME OF STUDIES & EXAMINATION

B.Tech. IV YEAR (ELECTRONICS & INSTRUMENTATION ENGINEERING)

SEMESTER – VIII

'F' Scheme

EFFECTIVE FROM THE SESSION 2012-13

Sl. No.	Course No.	Subject	Internal Marks	External Marks	Total Marks
1.	EI- 402-F	Industrial Training/Institutional Project Work	150	150	300

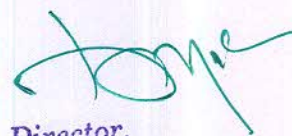
**Note:**

The students are required to undergo Industrial Training or Institutional Project Work of duration not less than 4 months in a reputed organization or concerned institute. The students who wish to undergo industrial training, the industry chosen for undergoing the training should be at least a private limited company. The students shall submit and present the mid-term progress report at the Institute. The presentation will be attended by a committee. Alternately, the teacher may visit the Industry to get the feedback of the students.

The final viva-voce of the Industrial Training or Institutional Project Work will be conducted by an external examiner and one internal examiner appointed by the Institute. External examiner will be from the panel of examiners submitted by the concerned institute approved by the Board of Studies in Engg. & Technology. Assessment of Industrial Training or Institutional Project Work will be based on seminar, viva-voce, report and certificate of Industrial Training or Institutional Project Work obtained by the student from the industry or Institute.

The internal marks distributions for the students who have undergone Industrial Training consist of 50 marks from the industry concern and 100 marks by the committee members consisting of faculty members of concerned department of the parent institute.

The teachers engaged for Institutional Project work shall have a workload of 2 hours per group (at least 4 students) per week.



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.Tech II YEAR (ELECTRONICS & COMMUNICATION ENGINEERING)**  
**SEMESTER III**

**'F' Scheme effective from 2010-11**

Sr No	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
HUM-201-F OR MATH-201-F	ENGG. ECONOMICS OR MATHEMATICS - III	3	1	-	4	50	100	-	150	3
HUM-203-F	FUNDAMENTALS OF MANAGEMENT (COMMON FOR ALL BRANCHES)	3	1	-	4	50	100	-	150	3
EE-201-F	ELECTRONICS DEVICES & CIRCUITS(ECE,EI,EE,EEE,I C)	3	1	-	4	50	100	-	150	3
EE-203-F	NETWORK THEORY (ECE,EI,EE,EEE,IC)	3	1	-	4	50	100	-	150	3
EE-205-F	ELECTROMECHANICAL ENERGY CONVERSION(ECE,EI,IC)	3	1	-	4	50	100	-	150	3
CSE-201-F	DATA STRUCTURE USING 'C' (ECE,EI,CSE,IT)	3	1	-	4	50	100	-	150	3
EE-221-F	ELECTRONIC WORKSHOP, PCB DESIGN & CIRCUIT LAB(ECE,EI)	-	-	2	2	25	-	25	50	3
EE-223-F	NETWORK THEORY LAB(ECE,EI,EE,EEE,IC)	-	-	2	2	25	-	25	50	3
EE-225-F	ELECTRICAL WORKSHOP & MACHINE LAB (ECE,EI)	-	-	3	3	50	-	50	100	3
CSE-205-F	DATA STRUCTURE USING 'C' Lab (ECE,EI,CSE,IT)	-	-	2	2	25	-	25	50	3
	<b>TOTAL</b>	<b>18</b>	<b>7</b>	<b>9</b>	<b>33 Or 34</b>	<b>425</b>	<b>600</b>	<b>125</b>	<b>1150</b>	

NOTE:

1. Students will be allowed to use non-programmable scientific calculator. However, Sharing of Calculator and other material will not be permitted in the examination.

*[Handwritten signature]*



*[Handwritten signature]*  
Director,

THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI



**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**BE. II YEAR (ELECTRONICS & COMMUNICATION ENGINEERING)**  
**SEMESTER – IV**

**'F' Scheme effective from 2010-11**

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
HUM-201-F OR MATH-201-F	ENGG. ECONOMICS	3	1	-	4	50	100	-	150	3
	OR MATHEMATICS - III	3	2	-	5					
EE-228-F	SIGNALS & SYSTEMS(ECE,ED)	3	-	-	3	50	100	-	150	3
EE-202-F	ANALOG ELECTRONICS (ECE,EI,EE,EEE,IC)	3	1	-	4	50	100	-	150	3
EE-204-F	DIGITAL ELECTRONICS (ECE,EI,EE,EEE,IC)	3	1	-	4	50	100	-	150	3
EE-206-F	COMMUNICATION SYSTEMS(ECE)	3	1	-	4	50	100	-	150	3
EE-208-F	ELECTRO MAGNETIC THEORY (ECE,EI,EE,EEE,IC)	3	1	-	4	50	100	-	150	3
EE-222-F	ANALOG ELECTRONICS LAB(ECE,EI,EE,EEE,IC)	-	-	2	2	25	-	25	50	3
EE-224-F	DIGITAL ELECTRONICS LAB(ECE,EI,EE,EEE,IC)	-	-	2	2	25	-	25	50	3
EE-226-F	COMMUNICATION SYSTEMS LAB (ECE)	-	-	2	2	25	-	25	50	3
MATH-204-F	NUMERICAL METHODS OF COMPUTATIONAL PROGRAMMING LAB(ECE,EI,EE,EEE,IC)	1	1	2	4	25	-	25	50	3
GP-202-F	GENERAL PROFICIENCY (COMMON FOR ALL BRANCHES)	-	-	2	2	50	-	-	50	3
	<b>TOTAL</b>	<b>19</b>	<b>6 Or 7</b>	<b>10</b>	<b>35 Or 36</b>	<b>450</b>	<b>600</b>	<b>100</b>	<b>1150</b>	

**Note:**

- Students will be allowed to use non-programmable scientific calculator. However, sharing of Calculator and other materials will not be permitted in the examination.
- Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the V semester.




  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**BTech. III YEAR (ELECTRONICS & COMMUNICATION ENGINEERING)**  
**SEMESTER V**  
**Modified 'F' Scheme effective from 2011-12**

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
EE-301-F	COMMUNICATION Engg.	3	1	-	4	50	100	-	150	3
EE-303-F	ELECTRONIC MEASUREMENT & INSTRUMENTATION (EL,EI,IC,EE,EEE,AEI)	3	1	-	4	50	100	-	150	3
EE-305-F	ANALOG ELECTRONIC CIRCUITS (EL,EI,IC,EE,EEE,AEI)	3	1	-	4	50	100	-	150	3
EE-307-F	ANTENNAS, WAVE PROPAGATION & TV Engg.	3	1	-	4	50	100	-	150	3
CSE-210-F	COMPUTER ARCHITECTURE AND ORGANISATION (EL,EI,IC,Common with IV sem. CSE,IT)	3	1	-	4	50	100	-	150	3
EE-309-F	MICROPROCESSORS AND INTERFACING (EL,EI,IC,CSE,IT,EEE,AEI)	3	1	-	4	50	100	-	150	3
EE-323-F	ELECTRONIC MEASUREMENT & INSTRUMENTATION LAB (EL,EI,IC,EE)	-	-	2	2	25	-	25	50	3
EE-325-F	ANALOG ELECTRONIC CIRCUITS LAB (EL,EI,IC)	-	-	2	2	25	-	25	50	3
EE-329-F	MICROPROCESSORS AND INTERFACING LAB (EL,EI,IC,CSE,IT,EEE,AEI)	-	-	2	2	25	-	25	50	3
EE-335-F	PRACTICAL TRAINING			2	2					
GPECE301-F	GERNERAL PROFICIENCY					50			50	3
	<b>TOTAL</b>	<b>18</b>	<b>6</b>	<b>8</b>	<b>32</b>	<b>425</b>	<b>600</b>	<b>75</b>	<b>1100</b>	

Note:

- 1) Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
- 2) Assessment of Practical Training-I, undergone at the end of IV semester, will be based on seminar, viva-voce, report and certificate of practical training obtained by the student from the industry. According to performance letter grades A, B, C, F are to be awarded. A student who is awarded 'F' grade is required to repeat Practical Training.



*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**M.D UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.Tech. III YEAR (ELECTRONICS & COMMUNICATION ENGINEERING)**  
**SEMESTER - VI**

**Modified 'F' Scheme effective from 2011-12**

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
EE-302-F	MICROWAVE AND RADAR ENGINEERING	3	1	-	4	50	100	-	150	3
EE-304--F	CONTROL SYTEMS ENGG. (EL,EE, EEE)	3	1	-	4	50	100	-	150	3
EE-306-F	VLSI Design	3	1	-	4	50	100	-	150	3
IT-305-F	COMPUTER NETWORKS	3	1	-	4	50	100	-	150	3
EE-310-F	DIGITAL SYSTEM DESIGN (EL,EI, IC,EE,CSE, AEI)	3	1	-	4	50	100	-	150	3
EE-308-F	MICROCONTROLLER & EMBEDDED SYSTEM	3	1	-	4	50	100	-	150	3
EE-328-F	MICROCONTROLLER & EMBEDDED SYSTEM LAB	-	-	2	2	25	-	25	50	3
EE-326-F	DIGITAL SYSTEM DESIGN LAB (EL,EI, IC,EE,CSE, AEI)	-	-	2	2	25	-	25	50	3
EE-322-F	MICROWAVE AND RADAR LAB	-	-	2	2	25	-	25	50	3
EE-324-F	CONTROL SYTEMS ENGG. LAB (EL,EE, EEE,AEI)	-	-	2	2	25	-	25	50	3
<b>TOTAL</b>		<b>18</b>	<b>6</b>	<b>8</b>	<b>32</b>	<b>400</b>	<b>600</b>	<b>100</b>	<b>1100</b>	

NOTE:

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of Calculator will not be permitted in the examination.
2. Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the VII semester.

*[Handwritten Signature]*



*[Handwritten Signature]*  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

M.D. UNIVERSITY, ROHTAK

**Scheme of studies & Examination  
B. Tech. (Electronics and Communication Engg.)**

**SEMESTER VII**

**F ' Scheme Effective from 2012-2013**

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
ECE-405-F	WIRELESS COMMUNICATION	3	1	-	4	50	100	-	150	3
ECE-403-F	SATELITE COMMUNICATION ENGINEERING	3	1	-	4	50	100	-	150	3
ECE-407-F	DATA COMMUNICATION	3	1	-	4	50	100	-	150	3
ECE-415-F	OPTICAL COMMUNICATION SYSTEMS	3	1	-	4	50	100	-	150	3
ECE-409-F	*Dept Elective-I	3	1	-	4	50	100	-	150	3
	Digital Signal Processing	3	1	-	4	50	100	-	150	3
ECE-423-F	Wireless & Satellite Communication Lab			3	3	50	-	50	100	3
ECE-427-F	Digital Signal Processing Lab	-	-	2	2	25	-	25	50	3
ECE-429-F	Data Communication Lab	-	-	3	3	50	-	50	100	3
GFEE-401-F	General Fitness For The Profession	-	-	-	-	-	-	50	50	3
ECE-404-F	Practical Training II									
<b>TOTAL</b>		<b>18</b>	<b>6</b>	<b>8</b>	<b>32</b>	<b>425</b>	<b>600</b>	<b>175</b>	<b>1200</b>	

*[Handwritten signature in blue ink]*



*[Handwritten signature in green ink]*

**Director,**  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**List of Dept Electives-I**

ECE-419-F	Mobile Communication
ECE-461-F	Genetic Algorithms & Applications
ECE-453-F	Radar and Sonar Engg.
ECE-411-F	Wireless Sensor Network
ECE-413-F	Fuzzy Control System

**Note:**

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
2. \*Student will be permitted to opt for any one elective run by the other departments. However, the departments will offer only those electives for which they have expertise. The choice of the students for any elective shall not be a binding for the department to offer, if the department does not have expertise.
3. A team consisting of Principal/Director, HOD of concerned department and external examiner appointed by University shall carry out the evaluation of the student for his/her General Fitness for the Profession.

**NOTE:-**

1. Assessment of Practical Training-II, (ECE-404F) carried out at the end of VI semester, will be based on seminar, viva-voce and project report of the student from the industry. According to performance letter Grades A, B, C, F are to be awarded. A student who is awarded 'F' grade is required to repeat Practical Training.



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

M.D. UNIVERSITY, ROHTAK

**Scheme of studies & Examination  
B. Tech. (Electronics and Communication Engg.)**

SEMESTER VIII

F ' Scheme Effective from 2012-2013

Training of Six Months

Course No.	Course Title	Teaching Schedule				Marks of Class Work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
ECE-402-F	Industrial Training /Institutional Project work	-	-	8	8	150	-	150	300	-
	Total			8	8					

**Note:**

1. The students are required to undergo Industrial Training or Institutional Project work of duration not less than 4 months in a reputed organization or concerned institute. The student who wish to undergo industrial training, the industry chosen for should be a private limited company. The final Viva-voca of the industrial training or Institutional Project work will be conducted by the external examiner and one internal examiner appointed by the institute. External examiner will be from penal of examiner.  
Assessment of traing or project will be based on Seminar, viva-voca, report and certificate of Industrial Training or Institutional project work.
2. The internal marks distribution for students who have undergone Industrial training consist of 50 marks from the Industry concern and 100 Marks by the committee members consisting of faculty members of concerned department of the present institute.
3. The teacher engaged for institutional project work shall have a workload of 2 hours per group ( at least 4 students per work)



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH (TEXTILE CHEMISTRY) SEMESTER-III**  
**'F' Scheme w.e.f 2010-11**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-201-F	Textile Raw Materials	3	1	-	4	50	100	-	150	3
TC-201-F	Physical & Organic Chemistry	3	1	-	4	50	100	-	150	3
TC-203-F	Yarn Formation	3	1	-	4	50	100	-	150	3
TC-205-F	Polymer & Fibre Chemistry	3	1	-	4	50	100	-	150	3
ME-217-F	Thermal Science	3	1	-	4	50	100	-	150	3
HUM-201-F	Engineering Economics	3	1	-	4	50	100	-	150	3
	Practicals									
TC-207-F	Yarn Formation Practical	-	-	3	3	50	-	50	100	4
TC-209-F	Qualitative Analysis of Organic Compounds	-	-	3	3	50	-	50	100	4
ME-219-F	Machine Drawing	-	-	2	2	50	-	50	100	4
TT-213-F	Fibre Microscopy & Identification	-	-	2	2	50	-	50	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH (TEXTILE CHEMISTRY) SEMESTER-IV**  
**'F' Scheme w.e.f 2010-11**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-202-F	Man-Made Fibre Production	3	1	-	4	50	100	-	150	3
TC-202-F	Unit Organic Process & Chemical Engg	3	1	-	4	50	100	-	150	3
TC-204-F	Fabric Formation	3	1	-	4	50	100	-	150	3
TC-206-F	Preparatory Wet Processing	3	1	-	4	50	100	-	150	3
TT-210-F	Computer Aided Designing	3	1	-	4	50	100	-	150	3
MA-201-F	Applied Statistics & Operations Research	3	1	-	4	50	100	-	150	3
	<b>Practicals</b>									
TC-208-F	Fabric Formation Practical	-	-	3	3	50	-	50	100	4
TC-210-F	Preparatory Wet Process Lab	-	-	3	3	50	-	50	100	4
TC-212-F	Analytical Chemistry Lab	-	-	2	2	50	-	50	100	4
TT-218-F	Computer Aided Textile Design	-	-	2	2	50	-	50	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	





  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI



**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech 3<sup>rd</sup> YEAR TEXTILE CHEMISTRY (TC)**  
**5<sup>th</sup> SEMESTER**

Proposed 'F' Scheme w.e.f 2011-12

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-301-F	Structure & Properties of Fibres (common with TT)	3	1	-	4	50	100	-	150	3
TC-303-F	Technology of Dyeing	3	1	-	4	50	100	-	150	3
TC-305-F	Chemistry of Dyes	3	1	-	4	50	100	-	150	3
TT-307-F	Textile Testing-I (common with TT)	3	1	-	4	50	100	-	150	3
TC-309-F	Textile Design	3	1	-	4	50	100	-	150	3
TT-311-F	Garment Manufacturing Technology (Common with TT)	3	1	-	4	50	100	-	150	3
	<b>Practicals</b>									
TC-313-F	Dyeing Lab-I	-	-	3	3	50	-	50	100	4
TC-315-F	Technical Analysis Lab	-	-	3	3	50	-	50	100	4
TT-317-F	Textile Testing Practical-I (common with TT)	-	-	2	2	50	-	50	100	4
TT-319-F	Pattern Cutting & Making-Up (common with TT)	-	-	2	2	50	-	50	100	4
	<b>Total</b>	<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	



*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech 3<sup>rd</sup> YEAR TEXTILE CHEMISTRY (TC)**  
**6<sup>th</sup> SEMESTER**  
**Proposed 'F' Scheme w.e.f 2011-12**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TC-302-F	Processing of Synthetics & Blends	3	1	-	4	50	100	-	150	3
TC-304-F	Textile Printing	3	1	-	4	50	100	-	150	3
TT-306-F	Textile Testing-II (common with TT)	3	1	-	4	50	100	-	150	3
TC-308-F	Textile Finishing-I	3	1	-	4	50	100	-	150	3
TC-310-F	Garment Processing & Quality Control	3	1	-	4	50	100	-	150	3
HUM-312-F	Merchandising & Export Management (common with TT)	3	1	-	4	50	100	-	150	3
	Practicals									
TC-314-F	Dyeing Lab-II	-	-	3	3	50	-	50	100	4
TC-316-F	Printing Lab	-	-	3	3	50	-	50	100	4
TT-318-F	Textile Testing Practical-II (common with TT)	-	-	2	2	50	-	50	100	4
TC-320-F	Industrial Wet Processing	-	-	2	2	50	-	50	100	4
	Total	18	6	10	34	500	600	200	1300	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH (TEXTILE CHEMISTRY) SEMESTER-VII (2012-13)**  
**'F' scheme w.e.f 2012-13**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TC 401-F	Textile Chemical Testing	3	1	-	4	50	100	-	150	3
TC 403-F	Textile Finishing-II	3	1	-	4	50	100	-	150	3
TT 405-F	Production Planning & Quality Management OR Waste Management & Pollution Control (common with TT)	3	1	-	4	50	100	-	150	3
TC 407-F	Wet Processing Machinery	3	1	-	4	50	100	-	150	3
TC 409-F	Theory of Coloration and Computer Colour Matching	3	1	-	4	50	100	-	150	3
HUM411-F	Finance, Material and Human Resource Management (common with TT)	3	1	-	4	50	100	-	150	3
TC 413-F	Colour Measurement & CCM lab	-	-	3	3	50	-	50	100	4
TC 415-F	Textile Finishing Lab	-	-	3	3	50	-	50	100	4
TC 417-F	Mill Practice	-	-	-	-	100	-	200	300	Viva
TC 418-F	Seminar	-	-	2	2	-	-	-	-	-
TC 419-F	Project Work (Mid Term Evaluation)	-	-	2	2	100	-	-	100	Viva
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>600</b>	<b>600</b>	<b>300</b>	<b>1500</b>	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**B.TECH (TEXTILE CHEMISTRY) SEMESTER-VIII (2012-13)**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT 402-F	Post Extrusion Operations (common with TT)	3	1	-	4	50	100	-	150	3
TC 404-F	Developments in Textile Chemical Processing	3	1	-	4	50	100	-	150	3
TC 406-F	Process Control in Chemical Processing	3	1	-	4	50	100	-	150	3
TC 408-F	Knitting & Knit Processing OR Eco-friendly Processing and Manufacturing of Textiles	3	1	-	4	50	100	-	150	3
TT 410-F	Technical Textiles OR Global Scenario of Textile Industry ( Common with TT )	3	1	-	4	50	100	-	150	3
CSE 412-F	Computer Network & Applications (common with TT)	3	1	-	4	50	100	-	150	3
TT 414-F	Textile Colour & Design (common with TT)	-	-	3	3	50	-	50	100	4
CSE 416-F	Computer Networking Practical (common with TT)	-	-	3	3	50	-	50	100	4
TC 418-F	Seminar	-	-	2	2	200	-	-	200	Viva
TC 420-F	Project Work	-	-	2	2	-	-	200	200	Viva
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>600</b>	<b>600</b>	<b>300</b>	<b>1500</b>	



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

F-scheme

TT  
TC  
FAE  
CSE  
EJ  
ME  
IT

**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH. II YEAR (COMPUTER SCIENCE & ENGINEERING)**  
**SEMESTER III**  
**'F' Scheme effective from 2010-11**

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class works	Theory	Practical	Total	
1	MATH-201-F OR HUM-201-F	Mathematics III Common to (CSE,IT,ME,ECE,BM E,EE,EEE,E&I,I&C) OR ENGG. ECONOMICS	3	2	-	5	50	100	-	150	3
2	CSE-201 F	Data Structures Using C (CSE,ECE,IT,EI)	3	1	-	4	50	100	-	150	3
3	CSE-203 F	Discrete Structures (CSE,IT)	3	1	-	4	50	100	-	150	3
4	EE-217 -F	Digital & Analog Communication (CSE,IT)	3	1	-	4	50	100	-	150	3
5	EE-204-F	Digital Electronics (Common with 4 <sup>th</sup> Sem. – EE,EL,EI & IC)	3	1	-	4	50	100	-	150	3
6	HUM-203 F	Fundamental of Management (Common for all branches)	3	1	-	4	50	100	-	150	3
7	IT-201-F	PC Lab (CSE,IT)	-	-	3	3	50	-	50	100	3
8	CSE-205-F	Data Structures Using C Lab (CSE,ECE,IT,EI)	-	-	2	2	25	-	25	50	3
9	EE-224-F	Digital Electronics Lab (CSE,IT & Common with 4 <sup>th</sup> Sem. – EE,EL,EI & IC)	-	-	3	3	50	-	50	100	3
<b>TOTAL</b>			<b>18</b>	<b>7</b>	<b>8</b>	<b>33</b>	<b>425</b>	<b>600</b>	<b>125</b>	<b>1150</b>	

**NOTE: 1. Students will be allowed to use non-programmable scientific calculator.  
However, sharing of Calculator will not be permitted in the examination.**



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

o.						Class work		ical			
1	CSE-202 F	Data Base Management Systems (CSE,IT)	3	1	-	4	50	100	-	150	3
2	CSE-204 F	Programming Languages	3	1	-	4	50	100	-	150	3
3	MATH-201-F OR HUM-201-F	Mathematics III Common to (CSE,IT,ME,ECE,B ME,EE,EEE,E&I,I& C) OR ENGG. ECONOMICS	3	2	-	5	50	100	-	150	3
4	IT-202-F	Object-Oriented Programming using C++ (CSE,IT)	3	1	-	4	50	100	-	150	3
5	CSE-208 F	Internet Fundamentals (CSE,IT)	3	1	-	4	50	100	-	150	3
6	CSE-210 F	Computer Architecture and Organization (CSE,IT and Common with 5 <sup>th</sup> Sem. EL,EI,IC)	3	1	-	4	50	100	-	150	3
7	CSE-212 F	Data Base Management Systems Lab. (CSE,IT)	-	-	3	3	50	-	50	100	3
8	IT-206-F	C++ Programming Lab. (CSE,IT)	-	-	2	2	25	-	25	50	3
9	CSE-214 F	Internet Lab. (CSE,IT)	-	-	2	2	25	-	25	50	3
10	GP-202 F	General Proficiency	-	-	2	2	50	-	-	50	
<b>TOTAL</b>			<b>18</b>	<b>6</b>	<b>9</b>	<b>34</b>	<b>450</b>	<b>600</b>	<b>100</b>	<b>1150</b>	

Note:

- 1) Students will be allowed to use non-programmable scientific calculator. However, sharing of
- 2) Calculator will not be permitted in the examination.
- 3) Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the V semester.



*[Signature]*  
Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**M. D. UNIVERSITY, ROHTAK**  
**Scheme of studies & Examination**  
**Bachelor of Technology (Computer Science & Engineering)**  
**Semester - V**  
**'F' Scheme Effective from 2010-11**

S. No.	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	CSE-301-F	Principles of Operating System (CSE,IT)	3	1	-	4	50	100	-	150	3
2	EE-309-F	Microprocessors and Interfacing (EL,CSE,IT,EI, IC, EEE, AEI)	3	1	-	4	50	100	-	150	3
3	CSE-303-F	Computer Graphics (CSE,IT)	3	1	-	4	50	100	-	150	3
4	CSE-305-F	Theory of Automata Computation	3	1	-	4	50	100	-	150	3
5	CSE 307-F	Web Development (Common with IT - VI Sem)	3	1	-	4	50	100	-	150	3
6	IT-204-F	Multimedia Technologies (Common with IT- IV-Sem)	3	-	-	3	50	100	-	150	3
7	CSE-309-F	Computer Graphics Lab. (CSE,IT)	-	-	3	3	25	-	25	50	3
8	CSE-311-F	Web Development & Core JAVA Lab. (Common with 6 Sem.-IT) <sup>th</sup>	-	-	2	2	25	-	25	50	3
9	IT-208-F	Multimedia Tech. Lab (Common with IT-IVSem)	-	-	2	2	25	-	25	50	3
10	EE-329-F	Microprocessors and Interfacing Lab. (EL,CSE,IT,EI, IC, EEE, AEI)	-	-	2	2	25	-	25	50	3
11.	CSE-313-F	O.S. Lab. (CSE, IT)	-	-	2	2	25	-	25	50	-
12	CSE-315-F	Practical Training-I	-	-	2	2	-	-	-	-	-
<b>TOTAL</b>			<b>18</b>	<b>5</b>	<b>13</b>	<b>36</b>	<b>425</b>	<b>600</b>	<b>125</b>	<b>1150</b>	

**Note:**

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
2. Assessment of Practical Training-I, undergone at the end of IV semester, will be based on seminar, viva-voce, report and certificate of practical training obtained by the student from the industry. According to performance letter grades A, B, C, F are to be awarded. A student who is awarded „F“ grade is required to repeat Practical Training.



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

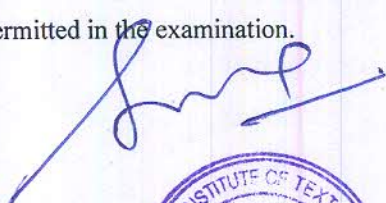
**M.D. UNIVERSITY, ROHTAK**

**Scheme of studies & Examination  
Bachelor of Technology (Computer Science & Engineering)  
Semester - VI  
'F' Scheme Effective from 2010-11**

S. No.	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)			Duration of Exam (Hours)	
			L	T	P	Marks of Total Class work	Theory	Practical	Total		
1	CSE-302 F	Principles of Software Engineering (CSE,IT)	3	1	-	4	50	100	-	150	3
2	CSE-304 F	Intelligent Systems (CSE,IT)	3	1	-	4	50	100	-	150	3
3	IT-305 F	Computer Networks (CSE, EL & Common with 5 Sem. - IT, AEI)	3	1	-	4	50	100	-	150	3
4	IT-303 F	Systems Programming & System Administration (Common with 5 Sem. - IT)	3	1	-	4	50	100	-	150	3
5	CSE-306 F	Analysis & Design of Algorithms	3	1	-	4	50	100	-	150	3
6	EE-310-F	Digital System Design (EL,EE,CSE,EI, IC, AEI)	3	1	-	4	50	100	-	150	3
7	CSE-308 F	Intelligent Systems Lab. (CSE,IT)	-	-	3	3	25	-	25	50	3
8	EE-330-F	Digital System Design Lab. (EL,EI, IC,CSE, AEI)	-	-	3	3	25	-	25	50	3
9	CSE-310-F	Computer Network lab	-	-	2	2	25	-	25	50	3
	CSE-312-F	Visual Programming Lab.	-	-	2	2	25	-	25	50	3
9	GP-302-F	General Proficiency	-	-	-	-	50	-	-	50	3
		<b>TOTAL</b>	<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>450</b>	<b>600</b>	<b>100</b>	<b>1150</b>	<b>-</b>

**Note:**

1. Each student has to undergone practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the VII semester.
2. Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.





**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



**M.D.UNIVERSITY, ROHTAK**  
**Scheme of Studies / Examination**  
**Bachelor of Technology (Computer Science & Engineering)**  
**SEMESTER VII**  
**'F' Scheme Effective from 2012-13**

Sl. No.	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	CSE-401 F	Advanced Computer Architecture	3	1	-	4	50	100	-	150	3
2	CSE-403 F	Software Project Management (CSE,IT)	3	1	-	4	50	100	-	150	3
3	CSE-405 F	Compiler Design	3	1	-	4	50	100	-	150	3
4	CSE-407 F	Neural Networks	3	1	-	4	50	100	-	150	3
5	CSE-409 F	Advanced Java (CSE, IT)	3	1	-	4	50	100	-	150	3
6		Elective	3	1	-	4	50	100	-	150	3
7	CSE-411 F	Compiler Design Lab	-	-	2	2	25	-	50	75	3
8	CSE-413 F	Neural Networks Using MATLAB	-	-	2	2	25	-	50	75	3
9	CSE-415 F	Advanced JAVA Lab (CSE, IT)	-	-	3	3	50	--	100	150	3
10	CSE-417 F	PRATICAL TRAINING-II	-	-	-	-	-	-	-	-	-
		<b>TOTAL</b>	<b>18</b>	<b>6</b>	<b>7</b>	<b>31</b>	<b>400</b>	<b>600</b>	<b>200</b>	<b>1200</b>	

**List of Electives**

1.	CSE-423 F	Distributed Operating System
2.	IT-465F	Network Security & Management
3.	CSE-421 F	Real Time Systems
4.	CSE-435 F	Advanced Database Management Systems
5.	IT-467 F	Computer Software Testing
6.	IT-473 F	High Speed Networks

**Note:**

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
2. Student will be permitted to opt for any one elective run by the department. However, the departments will offer only those electives for which they have expertise. The choice of the students for any elective shall not be a binding for the department to offer, if the department does not have expertise.
3. Assessment of Practical Training-II, carried out at the end of VI semester, will be based on seminar, viva- voce and project report of the student. According to performance letter grades A, B, C, F are to be awarded. A student who is awarded 'F' grade is required to repeat Practical Training.



*(Signature)*  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech. 4<sup>th</sup> YEAR COMPUTER SC & ENGINEERING, SEMESTER- VIII**  
**(Scheme-F)**

**EFFECTIVE FROM THE SESSION 2012-13**

		<b>Subject</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
1.	<b>CSE- 402-F</b>	<b>Industrial Training/Institutional Project Work</b>	150	150	300

**Note:**

The students are required to undergo Industrial Training or Institutional Project Work of duration not less than 4 months in a reputed organization or concerned institute. The students who wish to undergo industrial training, the industry chosen for undergoing the training should be at least a private limited company. The students shall submit and present the mid-term progress report at the Institute. The presentation will be attended by a committee. Alternately, the teacher may visit the Industry to get the feedback of the students.

The final viva-voce of the Industrial Training or Institutional Project Work will be conducted by an external examiner and one internal examiner appointed by the Institute. External examiner will be from the panel of examiners submitted by the concerned institute approved by the Board of Studies in Engg. & Technology. Assessment of Industrial Training or Institutional Project Work will be based on seminar, viva-voce, report and certificate of Industrial Training or Institutional Project Work obtained by the student from the industry or Institute.

**The internal marks distributions for the students who have undergone Industrial Training consist of 50 marks from the industry concern and 100 marks by the committee members consisting of faculty members of concerned department of the parent institute.**

The teachers engaged for Institutional Project work shall have a workload of 2 hours per group (at least 4 students) per week.



  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH (FASHION & APPAREL ENGG) SEMESTER-III**  
**'F' Scheme w.e.f 2010-11**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-201-F	Textile Raw Materials	3	1	-	4	50	100	-	150	3
FA-201-F	Traditional Indian Embroideries & Textiles	3	1	-	4	50	100	-	150	3
TC-203-F	Yarn Formation	3	1	-	4	50	100	-	150	3
FA-207-F	Apparel Production-I	3	1	-	4	50	100	-	150	3
MA-201-F	Applied Statistics & Operations Research	3	1	-	4	50	100	-	150	3
HUM-201-F	Engineering Economics	3	1	-	4	50	100	-	150	3
	Practicals									
TC-209-F	Yarn Formation Practical	-	-	3	3	50	-	50	100	4
FA-205-F	Fashion Sketching	-	-	3	3	50	-	50	100	4
FA-207-F	Traditional Indian Embroideries & Textiles	-	-	2	2	50	-	50	100	4
TT-213-F	Fibre Microscopy & Identification	-	-	2	2	50	-	50	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH (FASHION & APPAREL ENGG) SEMESTER-IV**  
**'F' Scheme w.e.f 2010-11**

Subject Code	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
FA-202-F	Evolution of Clothing & Fashion	3	1	-	4	50	100	-	150	3
FA-204-F	Colour and Design Concepts	3	1	-	4	50	100	-	150	3
TC-204-F	Fabric Formation	3	1	-	4	50	100	-	150	3
TT-208-F	Fabric Structure	3	1	-	4	50	100	-	150	3
FA-206-F	Apparel Merchandising	3	1	-	4	50	100	-	150	3
FA-208-F	Apparel Production-II	3	1	-	4	50	100	-	150	3
	<b>Practicals</b>									
TC-208-F	Fabric Formation Practical	-	-	3	3	50	-	50	100	4
FA-210-F	Colour and Design Lab	-	-	3	3	50	-	50	100	4
FA-212-F	Elementary Garment Manufacturing Lab	-	-	2	2	50	-	50	100	4
FA-214-F	Design Ideas and Fashion Illustration	-	-	2	2	50	-	50	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	

**FA-202-F EVOLUTION OF CLOTHING AND FASHION**

L T P  
3 1 -

Class work : 50  
 Examination : 100  
 Total : 150  
 Exam duration: 3 hrs

**NOTE:** Examiner will set 9 questions in total, with two questions from each unit and one question covering all sections which will be Q.1. This Q.1 is compulsory and of short answers type. Each question carries equal mark (20 marks). Students have to attempt 5 questions in total at least one question from each unit

**Unit I**

Origin of clothing. Objectives of clothing and costumes, Main archetypes of costumes, Principles of history of fashion. Theories of clothing-Protection, adornment, modesty and combined need theory etc.

Fashion and its meaning, Principles and history of fashion. Classification of fashion. Fashion product Life cycles. Sources of Fashion, Factors affecting fashion movement like cultural, socio-psychological, etc.

**Unit II**

Effect of various factors such as communication, industry, economy, sports etc on fashion. Fashion leadership theories. Important fashion capitals, National and International fashion designers, National and International fashion markets and fashion weeks.

**Unit III**

Indian history of costumes: Concept and comparison of costumes of all stages of pre-historic and medieval period, Study of Costumes, jewellery, footwear, hairstyles etc. in India in different periods as – Vedic and post vedic period, Maurian. Period, Gupta period Kushan and Kanishka period.

**Unit IV**

Global history of costumes: Concepts and history of classical costumes in Greek civilization and Roman civilization. History of costumes in Egyptian and Byzantine civilization. History of costumes in the western world starting from the origin up to the Reign of Charles and Louis with the emphasis on famous fashion centers and famous fashion designers. Important national and international fashion designers.

**Reading List**

**Title**

The guide to historic costumes  
 Inside Fashion Business  
 Inside Fashion Design  
 Fashion: From Concept to Consumers  
 Understanding today's Fashion

**Author**

Karen Baclaw Ski  
 Kitty G. Dickerson  
 Sharon Lee Tate  
 Gini Stephon Frings





*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH (FASHION & APPAREL ENGG) SEMESTER-V**  
**'F' Scheme w.e.f 2011-12**

Course No.	Course Title	Teaching Schedule				Marks of Classes	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theo	Practical		
FA-301-F	Knitting Technology	3	1	-	4	50	100	-	150	3
FA-303-F	Apparel Production-III	3	1	-	4	50	100	-	150	3
FA-305-F	Preparatory Wet processing	3	1	-	4	50	100	-	150	3
FA-307-F	Material Studies	3	1	-	4	50	100	-	150	3
FA-309-F	Apparel Production Planning & Scheduling	3	1	-	4	50	100	-	150	3
FA-311-F	Finance Material & Human Resource	3	1	-	4	50	100	-	150	3
	<b>Practicals</b>									
FA-313-F	Pattern Making	-	-	2	2	50	-	50	100	4
FA-315-F	Apparel Construction Lab-I	-	-	3	3	50	-	50	100	4
FA-317-F	Woven Knit Design and Development	-	-	2	2	50	-	50	100	4
FA-319-F	Preparatory Wet processing Lab	-	-	3	3	50	-	50	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>3</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	

1





  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

		L	T	P	Total	s	Theo	Practical		
TC-302-F	Dyeing of Textiles	3	1	-	4	50	100	-	150	3
TT-304-F	Textile & Garment	3	1	-	4	50	100	-	150	3
FA-306-F	Garment Production Machines &	3	1	-	4	50	100	-	150	3
FA-308-F	Knitted Garment Technology	3	1	-	4	50	100	-	150	3
FA-310-F	Apparel Marketing & Merchandising	3	1	-	4	50	100	-	150	3
TT-312-F	Structure & Properties of Textiles	3	1	-	4	50	100	-	150	3
	<b>Practicals</b>									
TC-314-F	Dyeing & Computer Color	-	-	2	2	50	-	50	100	4
TT-316-F	Textile & Garment Testing	-	-	3	3	50	-	50	100	4
FA-318-F	Apparel Design Lab	-	-	2	2	50	-	50	100	4
FA-320-F	Apparel Construction Lab-II	-	-	3	3	50	-	50	100	4
	<b>Total</b>	<b>18</b>	<b>6</b>	<b>10</b>	<b>3</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	



12

*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH (FASHION & APPAREL ENGG) SEMESTER-VII**  
**'F' Scheme**  
**EFFECTIVE FROM THE SESSION 2012-13**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
FA-401-F	Printing of Textiles	3	1	-	4	50	100	-	150	3
FA-403-F	Textile and Apparel Costing	3	1	-	4	50	100	-	150	3
FA-405-F	Automation in Garment Industry	3	1	-	4	50	100	-	150	3
FA-407-F	Computer Aided Designing	3	1	-	4	50	100	-	150	3
FA-409-F	Fashion Selection	3	1	-	4	50	100	-	150	3
FA-411-F	Indian Business Environment	3	1	-	4	50	100	-	150	3
FA-413-F	Printing Lab	-	-	3	3	50	-	50	100	4
FA-415-F	Apparel Design by CAD	-	-	3	3	50	-	50	100	4
FA-417-F	Garment Industry Practice	-	-	-	-	-	-	300	300	4
FA-418-F	Seminar	-	-	2	2	-	-	-	-	-
FA-419-F	Project Work (Mid Term Evaluation)	-	-	2	2	-	-	100	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>400</b>	<b>600</b>	<b>500</b>	<b>1500</b>	







**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH (FASHION & APPAREL ENGG) SEMESTER-VIII**  
**'F' Scheme**  
**EFFECTIVE FROM THE SESSION 2012-13**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theor	Practical		
FA-402-F	High Tech Garments	3	1	-	4	50	100	-	150	3
FA-404-F	Quality Assurance in Apparel Industry	3	1	-	4	50	100	-	150	3
FA-406-F	Fashion Accessories	3	1	-	4	50	100	-	150	3
FA-408-F	Retailing and Fashion Promotion	3	1	-	4	50	100	-	150	3
FA-410-F	Chemical & Mechanical Finishing of Textiles	3	1	-	4	50	100	-	150	3
FA-412-F	Advance Apparel Construction Techniques <u>OR</u> Home Fashions	3	1	-	4	50	100	-	150	3
FA-414-F	Apparel Draping & Grading	-	-	3	3	50	-	50	100	4
FA-416-F	Advance Apparel Construction Lab <u>OR</u> Home Fashions Lab	-	-	3	3	50	-	50	100	4
FA-418-F	Seminar	-	-	2	2	200	-	-	200	4
FA-420-F	Project Work	-	-	2	2	100	-	100	200	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>700</b>	<b>600</b>	<b>200</b>	<b>1500</b>	







Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI



**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH. II YEAR (INFORMATION TECHNOLOGY)**  
**SEMESTER -III**

‘F’ Scheme effective from 2010-11

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	MATH-201-F OR HUM-201-F	Mathematics III Common to (CSE,IT,ME,ECE,B ME,EE,EEE,E&I,I& C)  OR ENGG. ECONOMICS	3	2	-	5	50	100	-	150	3
2	CSE-201 F	<b>Data Structures using ‘C’ (CSE,ECE,IT,EI)</b>	3	1	-	4	50	100	-	150	3
3	CSE-203 F	<b>Discrete Structures (CSE,IT)</b>	3	1	-	4	50	100	-	150	3
4	EE-217-F	<b>Digital &amp; Analog Communication (IT,CSE)</b>	3	1	-	4	50	100	-	150	3
5	EE-204-F	<b>Digital Electronics (CSE, IT &amp; common with IV Sem. EL,EE,EI, IC)</b>	3	1	-	4	50	100	-	150	3
6	HUM-203 F	Fundamental of Management (Common for all branches)	3	1	-	4	50	100	-	150	3
7	IT-201 F	<b>PC Lab. (CSE, IT)</b>	-	-	3	3	50	-	50	100	3
8	CSE-205 F	<b>Data Structures using ‘C’ Lab (CSE,ECE,IT,EI)</b>	-	-	2	2	25	-	25	50	3
9	EE-224-F	<b>Digital Electronics Lab (Common with 4<sup>th</sup> Sem. - EL,EE,EI, IC)</b>	-	-	3	3	50	-	50	100	3
		<b>TOTAL</b>	<b>18</b>	<b>7</b>	<b>9</b>	<b>33</b>	<b>425</b>	<b>600</b>	<b>125</b>	<b>1150</b>	

NOTE: Students will be allowed to use non-programmable scientific calculator. However, sharing Calculator will not be permitted in the examination.



*[Signature]*  
 Director,  
 THE TECHNOLOGICAL INSTITUTE

*[Signature]*  
 Director,  
 THE TECHNOLOGICAL INSTITUTE

OF TEXTILE & SCIENCES, BHIWANI

**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**B.TECH. II YEAR (INFORMATION TECHNOLOGY)**  
**SEMESTER -IV**

**'F' Scheme effective from 2010-11**

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of class work	Theory	Practical	Total	
1	CSE-202 F	Data Base Management Systems (CSE,IT)	3	1	-	4	50	100	-	150	3
2	MATH-201-F OR HUM-201-F	Mathematics III Common to (CSE,IT,ME,ECE,BME,EE, ,EEE,E&I,I&C) OR ENGG. ECONOMICS	3	2	-	5	50	100	-	150	3
3	CSE-208 F	Internet Fundamentals (CSE,IT)	3	1	-	4	50	100	-	150	3
4	IT-202 F	Object Oriented Programming using C++ (CSE,IT)	3	1	-	4	50	100	-	150	3
5	CSE-210 F	Computer Architecture & Organization (CSE, IT and common with V-sem. EL,EI,IC)	3	1	-	4	50	100	-	150	3
6	IT-204 F	Multimedia Technologies (Common with CSE – V Sem.)	3	1	-	4	50	100	-	150	3
7	CSE-216 F	Data Base Management Lab.	-	-	2	2	25	-	25	50	3
8	IT-206 F	C++ Programming Lab. (CSE,IT)	-	-	2	2	25	-	25	50	3
9	IT-208 F	Multimedia Technologies Lab (Common with CSE – V Sem.)	-	-	2	2	25	-	25	50	3
10	CSE-214 F	Internet Lab. (CSE, IT)	-	-	2	2	25	-	25	50	3
11	GP-202 F	General Proficiency	-	-	2	2	50	-	-	50	3
		TOTAL	18	6	9	35	450	600	100	1150	-

**Note:**

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of Calculator will not be permitted in the examination.
2. Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the V semester.



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

## M.D. UNIVERSITY, ROHTAK


### Scheme of Studies & Examination Bachelor of technology (Information Technology) Semester - V 'F' Scheme Effective from 2010-11

S No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	IT-301-F	Rapid Application Development	3	1		4	50	100	-	150	3
2	IT-303-F	System Programming & System Administration (Common with CSE - VIth Sem)	3	1	-	4	50	100	-	150	3
3	IT-305-F	Computer Networks (IT, AEI, Common with CSE & EL- VIth Sem)	3	1	-	4	50	100	-	150	3
4	CSE-301-F	Principles of Operating System (CSE,IT)	3	1	-	4	50	100	-	150	3
5	EE- 309-F	Microprocessor & Interfacing (EL,CSE,IT,EI, IC, EEE, AEI)	3	1	-	4	50	100	-	150	3
6	CSE-303-F	Computer Graphics (CSE,IT)	3	1	-	4	50	100	-	150	3
7	IT-307-F	Rapid Application Development Lab	-	-	2	2	25	-	25	50	3
8	CSE-309-F	Computer Graphics Lab (CSE,IT)	-	-	3	3	50	-	50	100	3
9	CSE-313-F	Operating Systems Lab. (CSE, IT Common with CSE - V Sem)	-	-	2	2	25	-	25	50	3
10	EE-329- F	Microprocessor & Interfacing Lab. (CSE, IT, EL, EI, IC, AEI, EEE)	-	-	2	2	25	-	25	50	3
11	IT-309-F	Practical Training-I	-	-	2	2	-	-	-	-	-
<b>TOTAL</b>			<b>18</b>	<b>6</b>	<b>11</b>	<b>35</b>	<b>425</b>	<b>600</b>	<b>125</b>	<b>1150</b>	

**Note:**

- 1) Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
- 2) The marks of class work as well as practical examination in the subject CSE-309 E (Computer Graphics Lab.) has been increased from 25 each to 50 each. Thus the total marks for the subjects shall be 100 in place of 50 from the session 2007-08.



  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**M.D. UNIVERSITY, ROHTAK**

**Scheme of studies & Examination  
Bachelor of Technology (Information Technology)  
Semester - VI  
'F' Scheme effective from 2010-11**

S. No.	Course No.	Subject	Teaching Schedule				Examination Schedule				Duration of Exam (Hours)
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	IT-302 F	Network Programming	3	1	-	4	50	100	-	150	3
2	CSE-302 F	Principles of Software Engineering (CSE,IT)	3	1	-	4	50	100	-	150	3
3	CSE-304 F	Intelligent Systems (CSE,IT)	3	1	-	4	50	100	-	150	3
4	CSE-307 F	Web Development (Common with CSE – V Sem,)	3	1	-	4	50	100	-	150	3
5	EE-402-F	Wireless Communication (CSE, IT and Common with 8 Sem-EL)	3	1	-	4	50	100	-	150	3
6	MATHE-302-F	Operations Research (Common with CSE 8 <sup>th</sup> Semester)	3	1	-	4	50	100	-	150	3
7	IT-304 F	Network Programming Lab. (EL,IT, AEL)	-	-	2	2	50	-	50	100	3
8	CSE-306 F	Intelligent Systems Lab. (CSE,IT)	-	-	3	3	25	-	25	50	3
9	CSE-311 F	Web Development & Core JAVA Lab. (Common with V Sem – CSE)	-	-	2	2	25	-	25	50	3
11	GPIT-302 F	General Proficiency	-	-	-	-	50	-	-	50	
		<b>TOTAL</b>	<b>18</b>	<b>6</b>	<b>7</b>	<b>31</b>	<b>425</b>	<b>600</b>	<b>75</b>	<b>1150</b>	<b>-</b>

**Note:**

- 1) Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the VII semester.
- 2) Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.


  
 Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**M.D.UNIVERSITY, ROHTAK**  
**Scheme of Studies & Examination**  
**Bachelor of Technology (Information Technology)**  
**SEMESTER VII**  
**'F' Scheme effective from 2012-13**

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam
			L	T	P	Total	Marks of Class work	Theory	Practical	Total	
1	IT-401 F	Data Warehousing & Data Mining	3	1	-	4	50	100	-	150	3
2	CSE-403F	Software Project Management (CSE,IT)	3	1	-	4	50	100	-	150	3
3	IT-403 F	System & Network Administration	3	1	-	4	50	100	-	150	3
4	IT-407 F	Web Engineering	3	1	-	4	50	100	-	150	3
5	CSE-409F	Advanced JAVA	3	1	-	4	50	100	-	150	3
6		DEPTT ELECTIVE	3	1	-	4	50	100	-	150	3
7	IT-409 F	System & Network Administration Lab.	-	-	2	2	25	-	50	75	3
8	IT-411 F	Web Engineering Lab.	-	-	2	2	25	-	50	75	3
9	CSE 415 F	Advanced JAVA Lab	-	-	3	3	50	-	100	150	3
10	IT-415 F	Practical Training-II	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>			<b>18</b>	<b>6</b>	<b>7</b>	<b>31</b>	<b>400</b>	<b>600</b>	<b>200</b>	<b>1200</b>	

List of Deptt Electives

1	IT-421 F	Embedded Systems Design
2	IT-471 F	Management Information Systems
4	IT-407 F	Web Engineering
5	CSE-423 F	Distributed Operating System
6	IT-465F	Network Security & Management
7	CSE-425 F	Digital Image Processing
8	CSE-435 F	Advanced Database Management Systems
9	CSE-437F	Natural Language Processing
10	CSE-439 F	Object Oriented System Development
11	IT-467 F	Computer Software Testing
12	IT-469 F	Logic & Functional Programming
13	CSE-441 F	Human Computer Interaction
14	IT-473 F	High Speed Networks
15	IT-405 F	Introduction to E-Commerce & ERP

**Note:**

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
2. Student will be permitted to opt for any one elective run by the department. However, the departments will offer only those electives for which they have expertise. The choice of the students for any elective shall not be a binding for the department to offer, if the department does not have expertise.
3. 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. According to performance letter grades A, B, C, F are to be awarded. A student who is awarded 'F' grade is required to repeat Practical Training.



*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

MAHARSHI DAYANAND UNIVERSITY, ROHTAK

SCHEME OF STUDIES & EXAMINATIONS

B.Tech. 4<sup>th</sup> YEAR INFORMATION TECHNOLOGY, SEMESTER- VIII

(Proposed Scheme-F)

W.E.F 2012-13

		Subject	Internal Marks	External Marks	Total Marks
1.	IT- 402-F	Industrial Training/Institutional Project Work	150	150	300

**Note:**

The students are required to undergo Industrial Training or Institutional Project Work of duration not less than 4 months in a reputed organization or concerned institute. The students who wish to undergo industrial training, the industry chosen for undergoing the training should be at least a private limited company. The students shall submit and present the mid-term progress report at the Institute. The presentation will be attended by a committee. Alternately, the teacher may visit the Industry to get the feedback of the students.

The final viva-voce of the Industrial Training or Institutional Project Work will be conducted by an external examiner and one internal examiner appointed by the Institute. External examiner will be from the panel of examiners submitted by the concerned institute approved by the Board of Studies in Engg. & Technology. Assessment of Industrial Training or Institutional Project Work will be based on seminar, viva-voce, report and certificate of Industrial Training or Institutional Project Work obtained by the student from the industry or Institute.

**The internal marks distributions for the students who have undergone Industrial Training consist of 50 marks from the industry concern and 100 marks by the committee members consisting of faculty members of concerned department of the parent institute.**

The teachers engaged for Institutional Project work shall have a workload of 2 hours per group (at least 4 students) per week.



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech 2nd YEAR TEXTILE TECHNOLOGY(TT)**  
**3<sup>rd</sup> SEMESTER**  
**Proposed 'F' Scheme w.e.f 2010-11**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-201-F	Textile Raw Materials (common with TC/FAE)	3	1	-	4	50	100	-	150	3
TT-203-F	Yarn Manufacture-I	3	1	-	4	50	100	-	150	3
TT-205-F	Weaving Preparation	3	1	-	4	50	100	-	150	3
TT-207-F	Fabric Manufacture-I	3	1	-	4	50	100	-	150	3
ME-217-F	Thermal science(common to TC and TT )	3	1	-	4	50	100	-	150	3
HUM-201-F	Engineering Economics (Common to CSE, ME, ECE, BME, EE, EBE, E&I, I&C, IT, CE, TT, FAE, TC)	3	1	-	4	50	100	-	150	3
	<b>Practicals</b>									
TT-209-F	Spinning Practical-I	-	-	3	3	50	-	50	100	4
TT-211-F	Weaving Practical-I	-	-	3	3	50	-	50	100	4
ME-219-F	Machine Drawing	-	-	2	2	50	-	50	100	4
TT-213-F	Fibre Microscopy & Identification	-	-	2	2	50	-	50	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech 2nd YEAR TEXTILE TECHNOLOGY (TT)**  
**4<sup>th</sup> SEMESTER**

**Proposed 'F' Scheme w.e.f 2010-11**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-202-F	Man-Made Fibre Production	3	1	-	4	50	100	-	150	3
TT-204-F	Yarn Manufacture-II	3	1	-	4	50	100	-	150	3
TT-206-F	Fabric Manufacture-II	3	1	-	4	50	100	-	150	3
TT-208-F	Fabric Structure	3	1	-	4	50	100	-	150	3
TT-210-F	Computer Aided Designing	3	1	-	4	50	100	-	150	3
MA-201-F	Applied Statistics & Operations Research	3	1	-	4	50	100	-	150	3
	<b>Practicals</b>									
TT-212-F	Spinning Practical-II	-	-	3	3	50	-	50	100	4
TT-214-F	Weaving Practical-II	-	-	3	3	50	-	50	100	4
TT-216-F	Fabric Analysis	-	-	2	2	50	-	50	100	4
TT-218-F	Computer Aided Textile Designing	-	-	2	2	50	-	50	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**



**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech 3<sup>rd</sup> YEAR TEXTILE TECHNOLOGY (TT)**  
**5th SEMESTER**  
**Proposed 'F' Scheme w.e.f 2011-12**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-301-F	Structure & Properties of Fibres (Common with TC)	3	1	-	4	50	100	-	150	3
TT-303-F	Yarn Manufacture-III	3	1	-	4	50	100	-	150	3
TT-305-F	Fabric Manufacture-III	3	1	-	4	50	100	-	150	3
TT-307-F	Textile Testing-I (Common with TC)	3	1	-	4	50	100	-	150	3
TT-309-F	Textile Chemical Processing-I	3	1	-	4	50	100	-	150	3
TT-311-F	Garment Manufacturing Technology (Common with TC)	3	1	-	4	50	100	-	150	3
	<b>Practicals</b>									
TT-313-F	Spinning Practical-III	-	-	3	3	50	-	50	100	4
TT-315-F	Weaving Practical-III	-	-	3	3	50	-	50	100	4
TT-317-F	Textile Testing Practical-I (Common with TC)	-	-	2	2	50	-	50	100	4
TT-319-F	Patterning Cutting & Making-UP (Common with TC)	-	-	2	2	50	-	50	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech 3<sup>rd</sup> YEAR TEXTILE TECHNOLOGY (TT)**  
**6<sup>th</sup> SEMESTER**  
**Proposed 'F' Scheme w.e.f 2011-12**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-302-F	Modern Methods of Yarn Production	3	1	-	4	50	100	-	150	3
TT-304-F	Fabric Manufacture-IV	3	1	-	4	50	100	-	150	3
TT-306-F	Textile Testing-II (Common with TC)	3	1	-	4	50	100	-	150	3
TT-308-F	Mechanics of Textile Machinery	3	1	-	4	50	100	-	150	3
TT-310-F	Textile Chemical Processing-II	3	1	-	4	50	100	-	150	3
HUM-312-F	Merchandising & Export Management (Common with TC)	3	1	-	4	50	100	-	150	3
	<b>Practicals</b>									
TT-314-F	Spinning Practical-IV	-	-	3	3	50	-	50	100	4
TT-316-F	Weaving Practical-IV	-	-	3	3	50	-	50	100	4
TT-318-F	Textile Testing Practical-II (Common with TC)	-	-	2	2	50	-	50	100	4
TT-320-F	Textile Chemical Processing Lab	-	-	2	2	50	-	50	100	4
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>500</b>	<b>600</b>	<b>200</b>	<b>1300</b>	



*[Signature]*  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B. Tech FINAL YEAR TEXTILE TECHNOLOGY (TT)**  
**7<sup>th</sup> SEMESTER**  
**'F' Scheme w.e.f 2012-13**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-401-F	High Performance Fibres	3	1	-	4	50	100	-	150	3
TT-403-F	Multifibre Spinning	3	1	-	4	50	100	-	150	3
TT-405-F	Waste Management & Pollution Control OR Production Planning & Quality Management	3	1	-	4	50	100	-	150	3
TT-407-F	Engineering of Textile Structures-I	3	1	-	4	50	100	-	150	3
TT-409-F	Textile Costing	3	1	-	4	50	100	-	150	3
HUM-411-F	Finance, Material and Human Resource Management	3	1	-	4	50	100	-	150	3
TT-413-F	Spinning Practical - V	-	-	3	3	50	-	50	100	4
TT-415-F	Weaving Practical - V	-	-	3	3	50	-	50	100	4
TT-417-F	Mill Practice	-	-	-	-	100	-	200	300	4
TT-418-F	Seminar	-	-	2	2	-	-	-	-	-
TT-419-F	Project Work (Mid Term Evaluation)	-	-	2	2	100	-	-	100	Viva
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>600</b>	<b>600</b>	<b>300</b>	<b>1500</b>	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B. Tech FINAL YEAR TEXTILE TECHNOLOGY (TT)**  
**8<sup>th</sup> SEMESTER**  
**'F' Scheme w.e.f 2012-13**

Course No.	Course Title	Teaching Schedule				Marks of Class work	Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
TT-402-F	Post Extrusion Operations	3	1	-	4	50	100	-	150	3
TT-404-F	Spinning Technology	3	1	-	4	50	100	-	150	3
TT-406-F	Complex Textiles	3	1	-	4	50	100	-	150	3
TT-408-F	Engineering of Textile Structures-II	3	1	-	4	50	100	-	150	3
TT-410-F	Technical Textiles OR Global Scenario of Textile Industry	3	1	-	4	50	100	-	150	3
CSE-412-F	Computer Network & Applications	3	1	-	4	50	100	-	150	3
TT-414-F	Textile Colour & Design	-	-	3	3	50	-	50	100	4
TT-416-F	Computer Networking Practical	-	-	3	3	50	-	50	100	4
TT-418-F	Seminar	-	-	2	2	200	-	-	200	-
TT-420-F	Project Work	-	-	2	2	100	-	100	200	Viva
<b>Total</b>		<b>18</b>	<b>6</b>	<b>10</b>	<b>34</b>	<b>700</b>	<b>600</b>	<b>200</b>	<b>1500</b>	



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**MAHRASHSI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech 2nd YEAR MECHANICAL ENGINEERING,**  
**3<sup>rd</sup> SEMESTER**  
**Proposed 'F' Scheme w.e.f 2010-11**

Course	Course Title	Teaching Schedule				Marks for class work	Marks for Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
MAT-201-F or HUM-201-F	Mathematics-III or Engineering Economics	3 or 3	2 or 1	- -	5 or 4	50	100	-	150	3
HUM-203-F	Fundamentals of Management	3	1	-	4	50	100	-	150	3
ME-201-F	Thermodynamics	3	1	-	4	50	100	-	150	3
ME-203-F	Computer Aided Design	3	1	-	4	50	100	-	150	3
ME-205-F	Engineering Mechanics	3	1	-	4	50	100	-	150	3
ME-207-F	Material Science	3	1	-	4	50	100	-	150	3
ME-209-F	Machine Drawing	1	-	3	4	50	-	50	100	4
ME-211-F	Computer Aided Design Lab	-	-	2	2	25	-	25	50	3
ME-213-F	Engineering Mechanics Lab	-	-	2	2	25	-	25	50	3
ME-215-F	Materials Science Lab	-	-	2	2	25	-	25	50	3
	<b>Total</b>	<b>19</b>	<b>6</b>	<b>10</b>	<b>34/35</b>	<b>425</b>	<b>600</b>	<b>125</b>	<b>1150</b>	



*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech 2<sup>nd</sup> YEAR MECHANICAL ENGINEERING,**  
**4<sup>th</sup> SEMESTER**

**Proposed 'F' Scheme w.e.f 2010-11**

Course	Course Title	Teaching Schedule				Marks for class work	Marks for Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
MAT-201-F or HUM-201-F	Mathematics-III or Engineering Economics	3 or 3	2 or 1	-	5 or 4	50	100	-	150	3
ME-202-F	Manufacturing Technology-I	3	1	-	4	50	100	-	150	3
ME-204-F	Kinematics of Machine	3	1	-	4	50	100	-	150	3
ME-206-F	Strength of Materials-I	3	1	-	4	50	100	-	150	3
ME-208-F	Fluid Mechanics	3	1	-	4	50	100	-	150	3
ME-210-F	Steam & Power Generation	3	1	-	4	50	100	-	150	3
ME-212-F	Kinematics of Machine Lab	-	-	2	2	25	-	25	50	3
ME-214-F	Strength of Materials Lab	-	-	2	2	25	-	25	50	3
ME-216-F	Fluid Mechanics Lab	-	-	2	2	25	-	25	50	3
ME-218-F	Steam & Power Generation Lab	-	-	2	2	25	-	25	50	3
GP-202-F	General Proficiency	-	-	2	2	50	-	-	50	-
	<b>Total</b>	<b>18</b>	<b>6</b>	<b>9</b>	<b>34/35</b>	<b>450</b>	<b>600</b>	<b>100</b>	<b>1150</b>	



*[Handwritten Signature]*

Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech. 3<sup>rd</sup> YEAR MECHANICAL ENGINEERING, SEMESTER- V**  
**Proposed 'F' Scheme effective from 2011-12**

Course	Course Title	Teaching schedule				Marks For class work	Marks for Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
ME-301-F	Dynamics Of Machines	3	1	-	4	50	100	-	150	3
ME-303-F	Mechanical Machine Design-1	3	2	-	5	50	100	-	150	4
ME-305-F	Fluid Machine	3	1	-	4	50	100	-	150	3
ME-307-F	Internal Combustion Engines & Gas Turbines	3	1	-	4	50	100	-	150	3
ME-309-F	Manufacturing Technology –II	3	1	-	4	50	100	-	150	3
ME-311-F	Applied Numerical Technique & Computing	3	-	-	3	50	100	-	150	3
ME-313-F	Dynamics Of Mechanics Lab	-	-	2	2	25	-	25	50	3
ME-315-F	Fluid Machine Lab	-	-	2	2	25	-	25	50	3
ME-317-F	Internal Combustion Engines & Gas Turbines Lab	-	-	2	2	25	-	25	50	3
ME-319-F	Manufacturing Technology –II Lab	-	-	2	2	25	-	25	50	3
ME-321-F	Applied Numerical Technique & Computing Lab	-	-	2	2	50	-	-	50	-
ME-323-F	Practical Training Viva-Voce	-	-	2	2	-	-	-	-	-
	<b>Total</b>	<b>18</b>	<b>6</b>	<b>12</b>	<b>36</b>	<b>450</b>	<b>600</b>	<b>100</b>	<b>1150</b>	

**Note:**

- 1) Students will be allowed to use non-programmable scientific calculator. However, sharing of calculator will not be permitted in the examination.
- 2) Assessment of Practical Training-I, undergone at the end of IV semester, will be based on seminar, viva-voce, report and certificate of practical training obtained by the student from the industry. According to performance letter grades A, B, C, F are to be awarded. A student who is awarded 'F' grade is required to repeat Practical Training.



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech. 3<sup>rd</sup> YEAR MECHANICAL ENGINEERING, SEMESTER- VI**  
**Proposed "F" Scheme effective from 2011-12**

Course	Course Title	Teaching schedule				Marks For class work	Marks for Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
ME-302-F	Automobile Engineering	3	1	-	4	50	100	-	150	3
ME-304-F	Mechanical Machine Design-II	3	2	-	5	50	100	-	150	4
ME-306-F	Heat Transfer	3	1	-	4	50	100	-	150	3
ME-308-F	Automatic Control	3	1	-	4	50	100	-	150	3
ME-310-F	Measurement & instrumentation	3	1	-	4	50	100	-	150	3
ME-312-F	Industrial Engineering	3	1	-	4	50	100	-	150	3
ME-314-F	Automobile Engineering Lab	-	-	2	2	25	-	25	50	3
ME-316-F	Heat Transfer Lab	-	-	2	2	25	-	25	25	3
ME-318-F	Measurement & instrumentation Lab	-	-	2	2	25	-	25	25	3
ME-320-F	General Proficiency	-	-	2	2	50	-	-	50	-
	Total	18	7	8	33	450	600	100	1050	

**NOTE:**

1. Students will be allowed to use non-programmable scientific calculator. However, sharing of Calculator will not be permitted in the examination.
2. Each student has to undergo practical training of 6 weeks during summer vacation and its evaluation shall be carried out in the VII semester

*[Handwritten signature in blue ink]*

*[Handwritten signature in green ink]*

Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI





**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech. 4<sup>th</sup> YEAR MECHANICAL ENGINEERING, SEMESTER- VII**  
**(Scheme-F)**  
**EFFECTIVE FROM THE SESSION 2012-13**

Course	Course Title	Teaching schedule				Marks For class work	Marks for Examination		Total Marks	Duration of Exam
		L	T	P	Total		Theory	Practical		
ME-401-F	Strength of Material-II	3	1	-	4	50	100	-	150	3
ME-403-F	Refrigeration & Air-Conditioning	3	1	-	4	50	100	-	150	3
ME-405-F	Operation Research	3	1	-	4	50	100	-	150	3
ME-407-F	Power Plant Engineering	3	1	-	4	50	100	-	150	3
ME-409-F	Mechanical Vibration	3	1	-	4	50	100	-	150	3
-----	Elective	3	1	-	4	50	100	-	150	3
ME-411-F	Refrigeration & Air-Conditioning Lab	-	-	2	2	50	-	50	100	3
ME-413-F	Advanced CAD/CAM Lab	-	-	2	2	50	-	100	150	3
ME-415-F	Practical Training-II	-	-	2	2	-	-	-	-	-
GFME-435-F	General Fitness for the Profession	-	-	-	-	-	-	50	50	3
	Total	18	6	6	30	400	600	200	1200	

**LIST OF ELECTIVES**

S.NO.	SUBJECT CODE	DEPTT. ELECTIVE
1.	ME-417-F	QUALITY ENGINEERING
2.	ME 419-F	FINITE ELEMENT METHODS
3.	ME-421-F	ENERGY MANAGEMENT PRINCIPLES
4.	ME- 425-F	COMPUTER INTEGRATED MANUFACTURING
5.	ME- 429-F	RELIABILITY ENGINEERING
6.	ME-431-F	SOLAR ENERGY ENGINEERING



*Director,*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**

**MAHARSHI DAYANAND UNIVERSITY, ROHTAK**  
**SCHEME OF STUDIES & EXAMINATIONS**  
**B.Tech. 4<sup>th</sup> YEAR MECHANICAL ENGINEERING, SEMESTER- VIII**  
**(Scheme-F)**  
**EFFECTIVE FROM THE SESSION 2012-13**

Sl. No.	Course No.	Subject	Internal Marks	External Marks	Total Marks
1.	ME- 402-F	Industrial Training/Institutional Project Work	150	150	300

**Note:**

The students are required to undergo Industrial Training or Institutional Project Work of duration not less than 4 months in a reputed organization or concerned institute. The students who wish to undergo industrial training, the industry chosen for undergoing the training should be at least a private limited company. The students shall submit and present the mid-term progress report at the Institute. The presentation will be attended by a committee. Alternately, the teacher may visit the Industry to get the feedback of the students. The final viva-voce of the Industrial Training or Institutional Project Work will be conducted by an external examiner and one internal examiner appointed by the Institute. External examiner will be from the panel of examiners submitted by the concerned institute approved by the Board of Studies in Engg. & Technology. Assessment of Industrial Training or Institutional Project Work will be based on seminar, viva-voce, report and certificate of Industrial Training or Institutional Project Work obtained by the student from the industry or Institute.

**The internal marks distributions for the students who have undergone Industrial Training consist of 50 marks from the industry concern and 100 marks by the committee members consisting of faculty members of concerned department of the parent institute.**

The teachers engaged for Institutional Project work shall have a workload of 2 hours per group (at least 4 students) per week.



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

# 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.



*Director,*  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI

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



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**M.D.UNIVERSITY, ROHTAK (HARYANA)**  
**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



*Director,*  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



## 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.



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

**SCHEME OF STUDIES FOR THE FOUR SEMESTERS**

**MASTER OF TECHNOLOGY (M.TECH) (TT/TC) DEGREE COURSE**

**M.TECH (FIRST SEMESTER)**

<u>Index No.</u>	<u>Title of Papers</u>	<u>Hours per week</u>
TT 501	Developments in Fibre Production	4
TT 503	Structure and Properties of Fibres	4
MA 505	Advanced Mathematics & Computer Programming	4

Any one group of the Electives :

**Group A**

TT 507	Theory and Design of Spinning Machinery	4
TT 509	Modern Technology of Fabric Production	4

**Group B**

TC 507	Chemistry of Dyes	4
TC 509	Advances in Theory of Dyeing	4

-----  
20  
-----

**SECOND SEMESTER**

MA 502	Operations Research & Design of Experiments	4
EN 504	Instrumentation and Automatic Control	4
TT 506	Developments in Texturing	4



Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

Any one group of the Electives :

TT 508	Theory and Design of Weaving Machinery	4
TT 510	Structural Engg of Fibre Assemblies	4
TT 512	Unconventional Spinning Systems	4

-----  
24  
-----

## SCHEME OF EXAMINATION FOR THE FOUR SEMESTERS

### MASTER OF TECHNOLOGY (M.TECH) (TT/TC) COURSE

#### FIRST SEMESTER

Index No.	Title of Paper	No. of Papers	Time (Hrs)	Marks of Paper	Marks of C/Work	Total Marks
TT 501	Developments in Fibre Production	1	3	100	50	150
TT 503	Structure & Properties of Fibres	1	3	100	50	150
MA 505	Advance Mathematics & Computer Programming	1	3	100	50	150
Any one group of the Electives						
Group A						
TT 507	Theory & Design of Spinning Machinery	1	3	100	50	150
TT 509	Modern Technology of Fabric Production	1	3	10	50	150
Group B						
TC 507	Chemistry of Dyes	1	3	100	50	150
TC 509	Advance in Theory of Dyeing	1	3	100	50	150



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI



## SCHEME OF STUDIES

### THIRD SEMESTER

Subject

<u>Index No.</u>	<u>Theory Papers</u>	<u>Hours/Week</u>
TT 601	Design of Experiments & Quality Control	4
TT 603	Technical Textiles	4
TT 605	Mid-term Evaluation of Project /Seminar	

### FOURTH SEMESTER

TT/TC 602 Dissertation & Viva-Voce

(500)

Each student individually will carry out a project of an experimental and/or theoretical nature in one of the main branches of textile technology/textile chemistry and present his findings in a systematic manner in the Project Report duly approved and signed by his Supervisor / Guide (to be nominated by the Director, TITS). Each candidate would submit three (3) typed copies of the Project Report to Director, TITS at least 15 days before the commencement of fourth semester examination. One copy of the Project Report will be returned to the candidate after viva-voce examination. The original report and a carbon copy will be retained by the concerned Department / Institution and the Supervisor respectively.



*Director,*  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI

## SCHEME OF EXAMINATION

### THIRD SEMESTER

Index No.	Theory Papers	No. of papers	Time (Hrs)	Marks of Papers	Marks of C/Work	Total Marks
TT 601	Design of Experiments & Quality Control	1	3	100	50	150
TT 603	Technical Textiles	1	3	100	50	150
TT 605	Mid-term Evaluation of Project / Seminar	1			100	100
<b>FOURTH SEMESTER</b>						
TT/TC 602	Dissertation & Viva-Voce	1	2	500	-	500

### SYLLABUS – Third Semester

**TT 601      Design of Experiments & Quality Control      3(150)**

Section I ( Two questions)

Regression and Correlation:

Significance of the study of correlation, Karl Pearson's coefficient of correlation, Rank correlation coefficient, Method of least squares, Regression Lines, Regression equations of Y and X, Least square parabola, Partial correlation coefficients (Three variables only)

Multiple correlation and Regression.

Section II ( Two questions)

Statistical Quality Control:

Meaning of Statistical Quality Control, Control charts, namely, X,R,C and p charts. Benefits and limitations of SQC, acceptance sampling, selection of sampling plan. Construction of an OC curve.

Section III (4 questions)



**Director,  
THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**



M.Tech      CSF

**M.D. UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**M.TECH 1st YEAR (COMPUTER SCIENCE & ENGINEERING)**  
**SEMESTER 1st**  
**CBCS Scheme effective from 2016-17**

Sr. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)	No of hours/week
			L	T	P	Total Credits	Marks of Class works	Theory	Practical	Total		
1	16CSE21C1	Data Communication and Computer Networks	4	0	-	4	50	100	-	150	3	4
2	16CSE21C2	Advanced Operating Systems	4	0	-	4	50	100	-	150	3	4
3	16CSE21C3	Advanced Database Management System	4	0	-	4	50	100	-	150	3	4
4	16CSE21C4	Data Warehouse and Mining	4	0	-	4	50	100	-	150	3	4
5	16CSE21C5	Mathematical Foundation of Computer Science	4	0	-	4	50	100	-	150	3	4
6	16CSE21C6	Seminar	-	-	-	2	50	-	-	50		2
7	16CSE21CL1	Advanced Operating Systems Lab	-	-	2	2	50	-	50	100	3	2
8	16CSE21CL2	Advanced Database Management System Lab	-	-	2	2	50	-	50	100	3	2
<b>TOTAL</b>							<b>26</b>					

**NOTE:**

Examiner will set nine question in total. Question one will be compulsory and will comprises of all section and remaining eight questions to be set by taking two questions from each unit. The students have to attempt five questions in total, first being compulsory and selecting one from each Unit.


  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIVANI**

**M.D. UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**M.TECH 1st YEAR (COMPUTER SCIENCE & ENGINEERING)**  
**SEMESTER 2nd**  
**CBCS Scheme effective from 2016-17**

Sr. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)	No of hours /week
			L	T	P	Total Credits	Marks of Class works	Theory	Practical	Total		
1	16CSE22C1	Soft Computing	4	0	-	4	50	100	-	150	3	4
2	16CSE22C2	Algorithm Design	4	0	-	4	50	100	-	150	3	4
3	16CSE22C3	Seminar	-	-	2	2	50	-	-	50	-	2
4	16CSE22CL1	Soft Computing Lab	-	-	2	2	50	-	50	100	3	2
5	16CSE22CL2	Algorithm Design Lab	-	-	2	2	50	-	50	100	3	2
6	16CSE22D1 or 16CSE22D2 or 16CSE22D3 or 16CSE22D4	Elective-1	4	0	-	4	50	100	-	150	3	4
7		Open Elective				3						3
8		Foundation Elective				2						2
						<b>23</b>						

**NOTE:** Examiner will set nine question in total. Question One will be compulsory and will comprises of all section and remaining eight questions to be set by taking two questions from each unit. The students have to attempt five questions in total, first being compulsory and selecting one from each Unit.

**Elective 1 :** Choose any one from the following papers

- 16CSE22D1    Mobile and Wireless Communication
- 16CSE22D2    Optimization Techniques
- 16CSE22D3    Discrete Mathematics
- 16CSE22D4    Internet and Web Development

**Elective 2**

A candidate has to select this paper from the pool of Open Electives provided by the University

**Elective 3**

A candidate has to select this paper from the pool of Foundation Electives provided by the University

*Director*  
**THE TECHNOLOGICAL INSTITUTE  
OF TEXTILE & SCIENCES, BHIWANI**



**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**M.TECH 2nd YEAR (COMPUTER SCIENCE & ENGINEERING)**  
**SEMESTER 3rd**  
**CBCS Scheme effective from 2017-18**

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				Duration of Exam (Hours)	No of hours/ week	
			L	T	P	Total credits	Marks of Class works	Theory	Practical	Total			
1	16CSE23C1	Knowledge Based System	4	0	-	4	50	100	-	150	3	4	
2	16CSE23C2	Network Security	4	0	-	4	50	100	-	150	3	4	
3	16CSE23C3	Literature Survey (Dissertation Stage 1)	-	-	2	2	100	-	-	100		4	
4	16CSE23C4	Seminar	-	-	2	2	50	-	-	50		2	
5	16CSE23CL1	Knowledge Based System Lab	-	-	2	2	50	-	50	100		2	
6	16CSE23CL2	Project	-	-	2	2	50	-	50	100		2	
7		Foundation Elective				2							
8		Open Elective				3							
		<b>TOTAL</b>					<b>21</b>						

**NOTE:**

Examiner will set nine questions in total. Question One will be compulsory and will comprises of all sections and remaining eight questions to be set by taking two questions from each unit. The students have to attempt five questions in total, first being compulsory and selecting one from each Unit.

**Foundation Elective**

A candidate has to select this paper from the pool of Foundation Electives provided by the University.

**OPEN ELECTIVE**

A candidate has to select this paper from the pool of open electives provided by the University.

*[Signature]*  
**Director,**  
**THE TECHNOLOGICAL INSTITUTE**  
**OF TEXTILE & SCIENCES, BHIWANI**



**M.D UNIVERSITY**  
**SCHEME OF STUDIES AND EXAMINATION**  
**M.TECH 2nd YEAR (COMPUTER SCIENCE & ENGINEERING)**  
**SEMESTER 4th**  
**CBCS Scheme effective from 2017-18**

Sl. No	Course No.	Subject	Teaching Schedule				Examination Schedule (Marks)				No of Credits
			L	T	P	Total	Marks of Class works	Theory	Practical	Total	
1.	16CSE24C1	Dissertation and viva (Dissertation Stage 2)	-	-	-	-	250	-	500	750	20
<b>TOTAL</b>			-	-	-	-					

NOTE:

1. Students have to publish a research paper in a journal / conference of the research work done in the semester.



*[Handwritten signature in green ink]*

Director,  
 THE TECHNOLOGICAL INSTITUTE  
 OF TEXTILE & SCIENCES, BHIWANI