

**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

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→ P  
→ IT  
→ TC  
→ IAE  
→ ME  
→ ECH  
→ ITI  
→ BBA

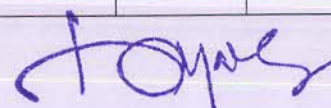
Sr. No.	Category	Course Notation	Course Code	Course Title	Hours per week			Total Contact hrs/week	Credit	Examination Schedule (Marks)				Duration of Exam (Hours)
					L	T	P			Mark of Class work	Theory	Practical	Total	
1	Basic Science Course	A	Refer to Table 1	Physics-1	3	1	0	4	4	25	75		100	3
		B	BSC-CH-101G	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
3	Engineering Science Course	A	ESC-EE-101G	Basic Electrical Engineering	3	1	0	4	4	25	75		100	3
	Engineering Science Course	B	Refer to Table 3	Programming for Problem Solving	3	0	0	3	3	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



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		B	Refer to Table 3	Programming in C Lab	0	0	4	4	2	25		25	50	3
7	Engineering Science Course	B	ESC-ME-103G	Manufacturing Practices Lab	0	0	4	4	2	25		25	50	3
8	Humanities and Social science including Management courses	C	HSMC-ENG-101G	English	2	0	0	2	2	25	75		100	3
<b>TOTAL CREDIT</b>									<b>19.5</b>	<b>175/200</b>	<b>300/375</b>	<b>125/75</b>	<b>600/650</b>	

  
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**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-I	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



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		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:**

- 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



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

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MAHARSHI DAYANAND UNIVERSITY, ROHTAK

**SCHEME OF STUDIES & EXAMINATIONS**  
**B.TECH (Electronics and Communication Engineering)**

Common with

**B.Tech (Electronics and Tele Communication)**

**SEMESTER –4th w.e.f. 2019-20**

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



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**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
2	Professional Core Course	PCC-ECE303G	Computer Organization & Architecture	3	0	0	3	3	25	75		100	3
3	Professional Core Course	PCC-ECE305G	Communication Engineering	3	1	0	4	4	25	75		100	3
4	Professional Core Course	PCC-ECE307G	Digital Signal Processing	3	1	0	4	4	25	75		100	3
5	Program Elective Course	Refer to Annexure I	Program Elective –I	3	1	0	4	4	25	75		100	3
6	Open Elective Course	Refer to Annexure I	Open Elective-I	3	0	0	3	3	25	75		100	3
7	Professional Core Course	LC-ECE323G	Electromagnetic Waves Lab	0	0	3	3	1.5	25		25	50	3
8	Professional Core Course	LC-ECE325G	Digital Signal Processing Lab	0	0	3	3	1.5	25		25	50	3
9	Training	PT-ECE327G	Practical Training – I	-	-	-	-	-	-	-	* 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.



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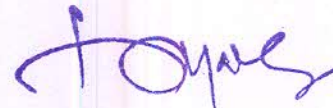
## Annexure I

### Elective -I

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

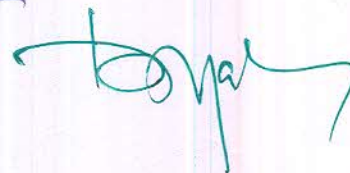
### Open Elective-I

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



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**Scheme of Studies and Examination**  
**B.TECH (Electronics & Communication 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			Internal Assessment	External Examination	Practical	Total	
1	Professional Core Course	PCC-ECE302G	Control Systems	3	1	0	4	4	25	75		100	3
2	Professional Core Course	PCC-ECE304G	Computer Network	3	1	0	4	4	25	75		100	3
3	Humanities/ Basic Science	HUM-ECE-306G	Engineering Ethics	3	0	0	3	3	25	75		100	3
4	Professional Core Course	PCC-ECE308G	CMOS Design	3	1	0	4	4	25	75		100	3
5	Program Elective Course	Refer to Annexure II	Program Elective –II	3	1	0	4	4	25	75		100	3
6	Open Elective Course	Refer to Annexure II	Open Elective-II	3	0	0	3	3	25	75		100	3
7	Professional Core Course	LC-ECE322G	Computer Network Lab	0	0	4	4	2	25		25	50	3
8	Professional Core Course	LC-ECE324G	Control System Lab	0	0	3	3	1.5	25		25	50	3
9	Professional Core Course	LC-ECE326G	Mini Project/Electronic Design workshop	0	0	4	4	2	25		25	50	3
<b>TOTAL CREDIT</b>								<b>27.5</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.
- Choose any one from Elective-II
- Choose any one from Open Elective-II



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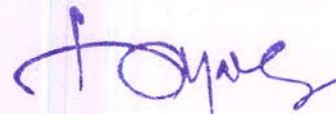
## Annexure II

### 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



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

**SEMESTER -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.

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## Annexure I

### Professional Elective-III

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

### Professional Elective-IV

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

### Professional Elective-V

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

  
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**SCHEME OF STUDIES & EXAMINATIONS**  
**B.TECH (Electronics and Communication Engineering Common with Electronics and**  
**Telecommunication Engineering)**  
**SEMESTER –8<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-II	Professional Elective-VI	3	3	0	6	3	25	75	-	100	3
2	Professional Core Course	PCC-ECE-403-G	Satellite Communication	3	3	0	6	3	25	75	-	100	3
3	Professional Core Course	PCC-ECE-404-G	Microwave theory and technique	3	3	0	6	3	25	75	-	100	3
5	Professional Core Course	LC-ECE-406-G	Wireless & Satellite Communication Lab	0	0	2	2	1.5	25	-	25	50	3
6	Open Elective Course	Refer to Annexure-III	Open Elective	3	0	0	6	3	25	75	-	100	3
7	Project	PROJ-ECE-408-G	Project Work II/ Dissertation	-	-	8	8	6	100	-	150	250	3
<b>TOTAL CREDIT</b>								<b>19.5</b>	<b>175</b>	<b>300</b>	<b>125</b>	<b>700</b>	

**Note:**

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



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## Annexure-II

### Professional Elective-VI

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

## Annexure-III

### Open Elective Courses-I

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



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