MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Scheme of Examination

GROUP A: I Semester *For batches admitted in Academic Session 2017-18*

B.Tech. I Semester (Electronics Engineering)

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot						
				End Sem.	Mid Sem Exam.	Quiz/ Assignment	End Sem.	Lab work & Sessional		L	T	P	
1.	100201	BSC	Engineering Physics (BSC-1)	70	20	10	30	20	150	4	1	2	6
2.	100202	HSMC	Energy, Environment, Ecology & Society (HSMC-1)	70	20	10	-	-	100	4	1	-	5
3.	100203	ESC	Basic Computer Engineering (ESC-1)	70	20	10	30	20	150	4	1	2	6
4.	100204	ESC	Basic Mechanical Engineering (ESC-2)	70	20	10	30	20	150	4	1	2	6
5.	100205	ESC	Basic Civil Engineering & Mechanics (ESC-3)	70	20	10	30	20	150	4	1	2	6
6.	100206	HSMC	Language Lab. & Seminars (HSMC-2)	-	-	-	30	20	50	-	-	2	1
			Total	350	100	50	150	100	750	20	5	10	30
NSS/NCC				Qualifier									
		Induction programme of first three weeks (MC):Physical activity, Creative Arts, Universal Human Values, Literary, Proficiency Modules, Lectures by Eminent People, Visits to local Areas, Familiarization to Dept./Branch & Innovations											

GROUP A: (Electrical, Electronics, Computer Science& Engineering, Information Technology, Electronics & Telecommunication)

GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)

01Theory Period=1 Credit; 02 Practical Periods =1 Credit

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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Scheme of Examination

Group A: II Semester *For batches admitted in Academic Session 2017-18*

B.Tech. II Semester (Electronics Engineering)

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot						
				End Sem.	Mid Sem.	Quiz/ Assignment	End Sem.	Lab work & Sessional		L	T	P	
1.	100101	BSC	Engineering Chemistry (BSC-2)	70	20	10	30	20	150	4	1	2	6
2.	100102	BSC	Engineering Mathematics-I (BSC-3)	70	20	10	-	-	100	4	1	-	5
3.	100103	HSMC	Technical English (HSMC-3)	70	20	10	30	20	150	4	1	2	6
4.	100104	ESC	Basic Electrical & Electronics Engineering (ESC-4)	70	20	10	30	20	150	4	1	2	6
5.	100105	ESC	Engineering Graphics (ESC-5)	70	20	10	30	20	150	4	1	2	6
6.	100106	ESC	Manufacturing Practices (ESC-6)	-	-	-	30	20	50	-	-	2	1
			Total	350	100	50	150	100	750	20	5	10	30
NSS/NCC				Qualifier									
Summer Internship Project –I (Institute Level) (Qualifier): Minimum two-week duration													

GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication)

GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)

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Scheme of Examination

B.Tech. III Semester (Electronics Engineering)

For batches admitted in Academic Session 2017-18

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem	Term work / Lab Work & Sessional					
1.	100001	BSC	Mathematics-II (BSC-4)	70	20	10	-	-	100	3	1	-	4
2.	140301	DC	Electronics – I (DC-1)	70	20	10	30	20	150	2	1	2	4
3.	140302	DC	Digital Circuits and Systems (DC-2)	70	20	10	30	20	150	3	-	2	4
4.	140303	DC	Network Theory (DC-3)	70	20	10	30	20	150	3	-	2	4
5.	140304	DC	Signals& Systems (DC-4)	70	20	10	-	-	100	3	1	-	4
6.	140305	DLC	Software Lab Introduction to MATLAB (DLC-1)	-	-	-	30	20	50	-	-	2	1
7.	140306	SEMINAR/ SELF STUDY	Self learning/Presentation (SWAYAM/NPTEL/ MOOC)#	-	-	-	-	25	25	-	-	2	1
8.	140309	DLC	Summer Internship Project–I (Institute Level) (Evaluation)	-	-	-	25		25			4	2
			Total	350	100	50	145	105	750	14	3	14	24
9.	100002 $	MC	Biology for Engineers (Audit Course) (MC)	70	20	10	-	-	100	3		-	-
NSS/NCC				Qualifier									

Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance, assignments and presentation.

$ This course will run for GroupA/B & Architecture students in III/IV semester respectively (Passing is not mandatory however a separate marksheet will be issued to those who pass)

*Virtual Lab to be conducted along with the traditional lab

GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication)

GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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Scheme of Examination

B.Tech. IV Semester(Electronics Engineering)

For batches admitted in Academic Session 2017-18

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			T C d
				Theory Slot			Practical Slot			L	T	P	
				End Sem.	Mid Sem. Exam.	Quiz/ Assignment	End Sem.	Term work / Lab Work & Sessional					
1.	100003	BSC	Mathematics- III (BSC-5)	70	20	10	-	-	100	2	2	-	
2.	140401	DC	Electronics II (DC-5)	70	20	10	30	20	150	2	1	2	
3.	140402	DC	Analog Communication (DC-6)	70	20	10	30	20	150	2	1	2	
4.	140403	DC	Communication Networks (DC-7)	70	20	10	-	-	100	3	1	-	
5.	140404	DC	Electronics Measurement and Instrumentation (DC-8)	70	20	10	-	-	100	3	1	-	
6.	100004	MC	Cyber Security (MC)	70	20	10	-	-	100	2	1	-	
7.	140405	DLC	Hardware Lab PCB Design Lab (DLC-2)	-	-	-	30	20	50	-	-	4	
			Total	420	120	60	90	60	750	14	7	8	
NSS/NCC				Qualifier									
Summer Internship Project-II (Soft skills Based) for two weeks duration: Evaluation in V Semester													

*Virtual Lab to be conducted along with the traditional lab

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Scheme of Examination

B.Tech. V Semester (Electronics Engineering)

For batches admitted in Academic Session 2017-18

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credit
				Theory Slot			Practical Slot						
				End Sem.	Mid Sem Exam.	Quiz/ Assisgnment	End Sem.	Lab work & Sessional		L	T	P	
1.	100005*	HSMC	Ethics, Economics, Entrepreneurship& Management (HSMC-4)	70	20	10	-	-	100	2	-	-	2
2.	140502	DC	Electromagnetic Theory (DC-09)	70	20	10	-	-	100	2	1	-	3
3.	140503	DC	Data Communication (DC-10)	70	20	10	30	20	150	2	-	2	3
4.	140504	DC	Linear Control Theory (DC-11)	70	20	10	30	20	150	2	-	2	3
5.	140505	DC	Digital Communication (DC-12)	70	20	10	30	20	150	2	-	2	3
6.	140506	DLC	Minor Project-I** (DLC-3)	-	-	-	30	20	50	-	-	2	1
7.	140507	DLC	Summer Internship Project-II (Evaluation) (DLC-4)	-	-	-	25	-	25	-	-	4	2
8.	140508	SEMINAR/ SELF STUDY	Self-learning/Presentation (SWAYAM/NPTEL/ MOOC)#	-	-	-	-	25	25	-	-	2	1
			Total	350	100	50	145	105	750	10	1	14	18
9.	100006$	MC	Indian Constitution & Traditional Knowledge (Audit Course) (MC)	70	20	10	-	-	100	3	-	-	-
				Department level activity/workshop/awareness programme to be conducted; certificate of compliance to be submitted by HoD to the Exam Controller through Dean Academics									
Additional Course for Honours or minor Specialization				Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization									

* Group A/B programmes will offer this course in V/VI Semester respectively.

$ Group A/B programmes will offer this course in V/VI Semester respectively. (Passing is not mandatory however a separate marksheet will be issued to those who pass)

** The minor project-I may be evaluated by an internal committee for awarding sessional marks.

Compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance, assignments and presentation

GROUP A: (Electrical, Electronics, Computer Science & Engineering, Information Technology, Electronics & Telecommunication)

GROUP B: (Civil, Mechanical, Chemical, Biotech, Automobile)

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Scheme of Examination

B.Tech. VI Semester (Electronics Engineering)

For batches admitted in Academic Session 2017-18

S. No	Subject Code	Category Code	Subject Name	Maximum Marks Allotted					MOOCS		Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot		Assignment	Exam					
				End Sem.	Mid Sem Exam.	Quiz/ Assignment	End Sem.	Lab work & Sessional				L	T	P	
1.	140601	DC	Microprocessors & Interfacing (DC-13)	70	20	10	30	20			150	2	-	2	3
2.	140602	DC	Digital Signal Processing (DC-14)	70	20	10	-	-			100	2	1	-	3
3.	1406XX	DE	DE-1*	70	20	10	-	-			100	2	-	-	2
4.	1406XX	DE	DE-2*	-	-	-	-	-	25	75	100	2	-	-	2
5.		OC	OC-1*	70	20	10	-	-			100	2	-	-	2
6.	100007	MC	Disaster Management (MC)	70	20	10	-	-			100	2	-	-	2
7.	140606	DLC	Minor Project-II (DLC-5)	-	-	-	50	50			100	-	-	4	2
			Total	350	100	50	80	70	25	75	750	12	1	6	16
				Summer Internship-III (On Job Training) for Four weeks duration: Evaluation in VII Semester											
Additional Course for Honors or minor Specialization				Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization											

#Group A/B programmes will offer this course in V/VI Semester respectively.

* At least one of these courses must be run through SWAYAM/NPTEL/ MOOC

Department Electives-1 (DE-1) 1406XX	Optical Communication 140611	Antennas and Wave Propagation 140612	Telecom Switching and Networks 140613
Department Electives-2 (DE-2) (MOOC) 1406XX	Spread Spectrum Communications and Jamming 140651	Digital IC Design 140652	Fuzzy Sets, Logic and Systems & Application 140653

Open Course-1 (OC-1)	Intelligent Control 900104	Embedded Systems 900105

Honors	Advanced Power Electronics & Control	Integrated Circuits, MOSFETs, Op-Amps and their Application	High Power multilevel converter
Minors	Integrated Circuits, MOSFETs, Op-Amps and their Application	High Power multilevel converter	

DEAN (ACADEMICS)
M.I.T.S
GWALIOR

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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Scheme of Examination

B.Tech. VII Semester (Electronics Engineering)

For batches admitted in Academic Session 2017-18

S.No.	Subject Code	Category Code	Subject Name & Title	Maximum Marks Allotted					MOOCS		Total Marks	Contact Hours per week			Total Credits
				Theory Slot			Practical Slot								
				End Sem.	Mid Sem. Exam	Quiz/ Assignment	End Sem.	Term Work / Lab Work & Sessional	Assignment	Exam		L	T	P	
1.	1407XX	DE	DE-3	70	20	10	-	-	-	-	100	2	-	-	2
2.	1407XX	DE	DE-4*	-	-	-	-	-	25	75	100	2	-	-	2
3.		OC	OC-2	70	20	10	-	-	-	-	100	2	1	-	3
4.		OC	OC-3	70	20	10	-	-	-	-	100	3	-	-	3
5.	100008	MC	Intellectual Property Rights (IPR) (MC)	70	20	10	-	-	-	-	100	2	-	-	2
6.	140705	DLC	VLSI Lab (DLC-6)	-	-	-	50	50	-	-	100	-	-	4	2
7.	140706	DLC	Summer Internship Project-III (04 weeks) (DLC-7)	-	-	-	50	50	-	-	100	-	-	4	2
8.	140707	DLC	Simulation & Fabrication lab (DLC-8)	-	-	-	25	25	-	-	50	-	-	2	1
			Total	280	80	40	125	125	25	75	750	11	1	10	17

Additional Course for Honours or minor Specialization	Permitted to opt for maximum two additional courses for the award of Honors or Minor specialization

*This course must be run through SWAYAM/NPTEL/ MOOC

Department Electives-3 (DE-3) (1407XX)	Satellite and Radar Communication Systems 140711	VLSI Design 140712	Microwave Engineering 140713
Department Electives-4 (DE-4) (MOOCS) (1407XX)	Digital Image Processing 140751	Introduction to Wireless Cellular Communication 140752	Milimeter wave Technology 140753

Open Course-2 (OC-2)	Satellite System (900206)	Consumer Electronics (900207)
Open Course-3 (OC-3)	MEMS & Mechatronics (900208)	Multimedia Communication (900209)

Honors	Microelectronics Devices to Circuits	Google Cloud Computing	Power Electronics
Minors	Microwave Engineering	Image Signal Processing	Introduction to Coding Theory

DEAN (ACADEMICS)
M.I.T.S
GWALIOR

Corrected

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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Scheme of Examination

B.Tech. VIII Semester (Electronics Engineering)

For batches admitted in Academic Session 2017-18

S.No.	Subject Code	Category	Subject Name & Title	Maximum Marks Allotted					MOOCS		Total Marks	Contact Hours per week Total			Credits
				Theory Slot			Practical Slot								
				End Sem.	Mid Sem. Exam	Quiz/ Assignment	End Sem.	Term Work / Lab Work & Sessional	Assignment	Exam		L	T	P	
1.	1408XX	DE	DE-5*	-	-	-	-	-	25	75	100	2	-	-	2
2.	9006XX	OC	OC-4*	-	-	-	-	-	25	75	100	2	-	-	2
3.	9006XX	OC	OC-5*	-	-	-	-	-	25	75	100	2	-	-	2
4.	140801	DLC	Internship/ Project (DLC-9)	-	-	-	250	150	-	-	400	-	-	6	3
5.	140802	-	Professional Development #	-	-	-	-	50	-	-	50	-	-	2	1
			Total	-	-	-	250	200	75	225	750	6	-	8	10
Additional Course for Honours or minor Specialization			Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization												

*All of these courses will run throughSWAYAM/NPTEL/ MOOC

#Evaluation will be based on participation/laurels brought by the students to the institution in national/state level technical events during the complete tenure of the UG program

List of DEs and OCs:

Department Electives-1 (DE-5) (1408XX)	Modern Digital Communication Techniques (140851)	Mathematical methods and techniques in Signal Processing **(140852)**	Power Management Integrated Circuits **(140853)**

Open Course-4 (OC-4)	Linear Dynamical Systems (900601)	Sensors and Actuators (900602)
Open Course-5 (OC-5)	Electronics Equipment Integration and Prototype Building (900603)	Computer Vision and Image Processing - Fundamentals and Applications (900604)

Honors	Architectural Design of Digital Integrated Circuits	Cloud Computing and Distributed Systems	Biomedical Signal Processing
Minors	Microwave Integrated Circuit	Digital Signal Processing and its Applications	Computer Vision and Image Processing - Fundamentals and Applications