

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**

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

NAAC Accredited with A++ Grade

**Flexible  
Scheme  
2020-2021  
B.Tech.**

in

***Mathematics and Computing***



***Department of Engineering Mathematics and Computing***

**Madhav Institute of Technology & Science**

**Gwalior-474005**

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

NAAC Accredited with A++ Grade

## *Mathematics and Computing*

### Abbreviations used

<b>L</b>	<b>Lecture</b>
<b>T</b>	<b>Tutorial</b>
<b>P</b>	<b>Practical</b>
<b>HSMC</b>	<b>Humanities and Social Sciences including Management Courses</b>
<b>BSC</b>	<b>Basic Science Courses</b>
<b>ESC</b>	<b>Engineering Science Courses</b>
<b>DC</b>	<b>Departmental Core</b>
<b>DE</b>	<b>Departmental Elective</b>
<b>OC</b>	<b>Open Category</b>
<b>DLC</b>	<b>Departmental Laboratory Courses</b>
<b>MC</b>	<b>Mandatory Course</b>
<b>MOOC</b>	<b>Massive Open Online Courses</b>

### Definition of Credit:

<b>1 Hr. Lecture (L) per week</b>	<b>1 credit</b>
<b>1 Hr. Tutorial (T) per week</b>	<b>1 credit</b>
<b>2 Hours Practical(Lab)/week</b>	<b>1 credit</b>

*\*\*Minor variation is allowed as per need of the respective disciplines. Please consult the AICTE model curriculum as a standard reference, if needed.*



**Scheme of Examination**  
**B. Tech. Offered by Department of Engineering Mathematics & Computing**  
**VII Semester**

**For batches admitted in academic session 2020-21**

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Teaching (Online, Offline, Blended)	Mode of Exam	
				Theory Slot				Practical Slot			MOOCs		L	T	P				
				End Term Evaluation		Continuous Evaluation		End Sem. Exam.	Continuous Evaluation		Assignment								Exam
				End Sem. Exam.	Proficiency in subject/course	Mid Sem. Exam	Quiz/Assignment		Lab work & Sessional	Skill Based Mini Project									
1.	250701	DE	Departmental Elective* (DE-II)	50	10	20	20	-	-	-	-	100	3	-	-	3	Offline	PP	
2.		DE	Departmental Elective* (DE-III)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	
3.		DE	Departmental Elective* (DE-IV)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	
4.		OC	Open Category (OC-2)	50	10	20	20	-	-	-	-	100	3	-	-	3	Offline	PP	
5.	250704	DLC	Departmental Lab	-	-	-	-	60	20	20	-	100	-	-	4	2	Offline	A+O	
6.	250705	DLC	Creative Problem Solving (Evaluation)	-	-	-	-	25	25	-	-	50	-	-	2	1	Blended	SO	
7.	250706	DLC	Summer Internship Project-III (04 weeks) (Evaluation)	-	-	-	-	60	-	-	-	60	-	-	4	2	Offline	SO	
<b>Total</b>				<b>100</b>	<b>20</b>	<b>40</b>	<b>40</b>	<b>145</b>	<b>45</b>	<b>20</b>	<b>50</b>	<b>150</b>	<b>610</b>	<b>12</b>	<b>-</b>	<b>10</b>	<b>17</b>	-	-
8.	1000008	MAC	Universal Human Values & Professional Ethics(UHVPE)	50	10	20	20	-	-	-	-	100	2	-	-	GRAD E	Online	MCQ	
<b>Additional Course for Honours or minor Specialization</b>				<b>Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization</b>															

<sup>§</sup> proficiency in course/subject-includes the weightage towards ability/skill/competence/knowledge level/ expertise attained etc. in that particular course/subject.  
<sup>SS</sup> MCQ: Multiple Choice Question    <sup>SS</sup> AO: Assignment + Oral    <sup>SS</sup> PP: Pen Paper    <sup>SS</sup> SO: Submission + Oral  
 \* Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform with Credit Transfer

Mode of Teaching						Mode of Examination					Total Credits
Theory		Lab	NEC	Theory			Lab	NEC			
Offline	Online			Offline	Blended	Online			PP	A+O	
35.29%	35.29%	-	-	23.52%	5.88%	25%	12.5%	37.5%	25%	-	17

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**Open Course (OC- II)**

S. No.	Subject Code	Subject name
1	910213	Advanced Discrete Mathematics
2	910214	Optimization Techniques

**DE -II (Through Traditional Mode)**

S. No.	Subject Code	Subject name
1	250731	Engineering Reliability
2	250732	Distributed Computing

**DE -III (Through NPTEL)**

S. No.	Subject Code	Subject name	Time Duration (Weeks)	Faculty Coordinator	Mentor Name and Affiliation
1	250761	Ethical Hacking	12	<i>Dr. Minakshi Dhaiya/ Dr. Atul Ku. Ray</i>	Prof. Indranil Sengupta, IIT Kharagpur
2	250762	Computational Complexity	12		Prof. Subrahmanyam Kalyanasundaram, IIT Hyderabad

**DE -IV (Through NPTEL)**

S. No.	Subject Code	Subject name	Time Duration (Weeks)	Faculty Coordinator	Mentor Name and Affiliation
1	250764	Deep learning	12	<i>Dr. Minakshi Dhaiya/ Dr. Atul Ku. Ray</i>	Prof. Prabir Kumar Biswas from IIT Kharagpur
2	250765	Digital Image Processing	12		Prof. Prabir Kumar Biswas from IIT Kharagpur

**Honors Specialization**

S. No.	Subject Code	Subject name	Time Duration (Weeks)	Faculty Coordinator	Mentor Name and Affiliation
1		Getting Started with Competitive Programming	12	<i>Dr. Minakshi Dhaiya/ Dr. Atul Ku. Ray</i>	<i>Prof. Neeldhara Misra from IIT Gandhinagar</i>
2		Advanced Graph Theory	8		<i>Prof. Rajiv Misra from IIT Patna</i>
3		Computer Vision & Image Processing Fundamental and Applications	12		<i>Prof. M. K. Bhuyan from IIT Guwahati</i>

**Minor Specialization**

S. No.	Subject Code	Subject name	Time Duration (Weeks)	Faculty Coordinator	Mentor Name and Affiliation
1		Advanced Partial Differential Equations – (Part I: Distributions and Sobolev Spaces)	8	<i>Dr. Minakshi Dhaiya/ Dr. Atul Ku. Ray</i>	Prof. A. K. Nandakumaran, Prof. P.S. Datti IISc Bangalore
2		Introduction to Abstract and Linear Algebra	8		Prof. Sourav Mukhopadhyay IIT Kharagpur
3		Introduction To Methods of Applied Mathematics	12		Prof. Mani Mehra, Prof. Vivek K. Aggarwal IIT Delhi, DTU Delhi

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Scheme of Examination

### B.Tech. Offered by Department of Engineering Mathematics & Computing VI Semester (Admitted batch 2020)

Sl. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hours per week			Total Credits	Mode of Teaching (Offline/Online)	Mode of Exa <sup>n</sup> .		
				Theory Slot				Practical Slot				MOOCs		L				T	P
				End Sem.		Mid Sem. Exam.	Quiz/Assignment	End Sem	Lab Work & Sessional	Skill Based Mini Project		Assignment	Exam						
				End Term Evaluation	Proficiency in subject /course														
1.	250601	DC	Computer Graphics	50	10	20	20	-	-	-	100	4	1	-	5	Offline	PP		
2.	250602	DC	Compiler Design	50	10	20	20				100	4	1	-	5	Offline	PP		
3.		DE	Departmental Elective (DE-I)								100	3	-	-	3	Online	MCQ		
4.	250603	MC	Artificial Intelligence & Machine Learning (AI & ML)	50	10	20	20	60	20	20	200	4	-	2	5	Blended	MCQ		
5.		OC	Open Category (OC-1)	50	10	20	20	-	-	-	100	3	-	-	3	Offline	PP/MCQ		
6.	250604	DLC	Minor Project-II	50	10	20	20	60	40	-	100	-	-	4	2	Offline	SO		
7.	200xxx	CLC	Novel Engaging Course	-	-	-	-	50	-	-	50	-	-	2	1	Interactive	SO		
<b>Total</b>				<b>250</b>	<b>50</b>	<b>100</b>	<b>100</b>	<b>110</b>	<b>20</b>	<b>20</b>	<b>750</b>	<b>18</b>	<b>2</b>	<b>4</b>	<b>24</b>				

Summer Internship-III (On Job Training) for Four weeks duration: Evaluation in VII Semester

MAC	Intellectual Property Right (IPR)	50	10	20	20	-					100	2			GRADE	Online	MCQ
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<sup>s</sup>proficiency in course/subject includes the weightage towards ability/skill/competence/knowledge level/ expertise attained etc. in that particular course/subject.  
<sup>ss</sup>MCQ: Multiple Choice Question    <sup>ss</sup>AO: Assignment + Oral    <sup>ss</sup>PP: Pen Paper    <sup>ss</sup>SO: Submission + Oral

\*\* 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

Mode of Teaching				Mode of Examination					Total Credits
Theory		Blended	Lab	Theory			Lab	NEC	
Offline	Online			Offline	Interactive	PP			
6	1			1	3	1	3	1	
75%	12.5%			12.5%	37.5%	12.5%	37.5%	12.5%	

*MKS*  
02.03.2023  
DEAN (ACADEMICS)  
M.I.T.S  
GWALIOR

*MKS*

*MKS*  
30/12/2022  
M.I.T.S  
GWALIOR

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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Open Course (OC- I)		
S. No.	Subject Code	Subject name
1		Advanced Numerical Techniques
2		Transform Calculus
3		Computational Fluid Dynamics

DE -I (Through NPTEL)					
S. No.	Subject Code	Subject name	Time Duration (Weeks)	Faculty Coordinator	Mentor Name and Affiliation
1	250605	Block chain and its application	12	<i>Dr. MinakshiDhaiya</i>	<i>Prof. SandipChakraborty, Prof. ShamikSural from IIT Kharagpur</i>
2	250606	Cloud Computing	12		<i>Prof. SoumyaKantiGhosh from IIT Kharagpur</i>
3	250607	GPU Architectures and Programming	12		<i>Prof. SoumyajitDey from IIT Kharagpur</i>

Minor Specialization					
S. No.	Subject Code	Subject name	Time Duration (Weeks)	Faculty Coordinator	Mentor Name and Affiliation
1		A Primer to Mathematical Optimization	12	<i>Dr. MinakshiDhaiya</i>	<i>Prof. DebdasGhosh from IIT (BHU), Varanasi</i>
2		Advanced Linear Algebra	12		<i>Prof. PremanandaBera from IIT Roorkee</i>
3		Advanced Probability Theory	12		<i>Prof. NiladriChatterjee from IIT Delhi</i>

Honors Specialization					
S. No.	Subject Code	Subject name	Time Duration (Weeks)	Faculty Coordinator	Mentor Name and Affiliation
1		Getting Started with Competitive Programming	12	<i>Dr. MinakshiDhaiya</i>	<i>Prof. NeeldharaMisra from IIT Gandhinagar</i>
2		Advanced Graph Theory	8		<i>Prof. Rajiv Misra from IIT Patna</i>
3		Computer Vision & Image Processing	12		<i>Prof. M. K. Bhuyan from IIT</i>

Department of Engineering Mathematics & Computing

Scheme of Examination

B. Tech. (Admitted batch 2020)

V Semester

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Teaching (Offline/Online)	Mode of Exam.	
				Theory Slot				Practical Slot			L	T	P				
				End Sem.		Continuous Evaluation		End Sem.	Continuous Evaluation								
				End Term Evaluation	Proficiency in subject /course	Mid Sem. Exam	Quiz/ Assignment		Lab Work & Sessional		Skill Based Mini Project						
1.	250501	DC	Computer Networks	50	10	20	20	-	-	-	100	3	-	-	3	Blended (2/1)	PP
2	250502	DC	Real and Complex Analysis	50	10	20	20	-	-	-	100	3	1	-	4	Offline (4/0)	PP
3	250503	DC	Software Engineering	50	10	20	20	-	-	-	100	3	-	-	3	Blended(2/1)	MCQ
4	250504	MC	Data Science using Python	50	10	20	20	60	20	20	200	2	1	2	4	Blended (2/1)	MCQ
5	250505	DC	Optimization Techniques	50	10	20	20	-	-	-	100	3	1	-	4	Offline (4/0)	PP
6	250506	DLC	Minor Project-I	-	-	-	-	60	40	-	100	-	-	4	2	Offline (2/0)	SO
7	250507	DLC	Self-learning/Presentation <sup>#</sup> (NPTEL/SWAYAM/MOOC)	-	-	-	-	-	40	-	40	-	-	2	1	Online mentoring	SO
8	200xxx	CLC	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	50	-	-	2	1	Interactive	SO
9	250508	DLC	Summer Internship Project -II	-	-	-	-	60	-	-	60	-	-	4	2	Offline	SO
<b>Total</b>				<b>250</b>	<b>50</b>	<b>100</b>	<b>100</b>	<b>230</b>	<b>100</b>	<b>20</b>	<b>850</b>	<b>14</b>	<b>3</b>	<b>14</b>	<b>24</b>		
0		MAC	Disaster Management	50	10	20	20	-	-	-	100	2	-	-	Grade	Online	MCQ
1		MAC	Project Management and Financing	50	10	20	20	-	-	-	100	2	-	-	Grade	Online	MCQ

<sup>S</sup> proficiency in course/subject-includes the weightage towards ability/skill/competence/knowledge level/ expertise attained etc. in that particular course/subject.

<sup>SS</sup>MCQ: Multiple Choice Question <sup>SS</sup>AO: Assignment + Oral <sup>SS</sup>PP: Pen Paper <sup>SS</sup>SO: Submission + Oral

\*\* The Minor Project-I may be evaluated by an internal committee for awarding sessional marks.

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

Mode of Teaching				Mode of Examination						Total Credits	
Theory		Lab	NEC	Theory			Lab	NEC			
Offline	Online			Offline	Interactive	PP			A+O		MCQ
8	-	6	3	6	1	3	-	2	3	1	25
33.337%	-	25%	12.5%	25%	4.17%	33.33%	-	22.22%	33.33%	11.11%	

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# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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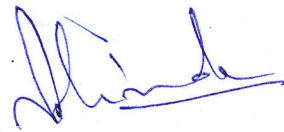
## List of courses to be opted for Honours or Minor specialization in V Semester

Honours* (to be opted by students of Parent Department)	Minor Specialization* (to be opted by students of Other Department)
Artificial Intelligence Search Methods for Problem Solving	First Course on Partial Differential Equations
Deep Learning for Computer Vision	Introduction To Methods of Applied Mathematics
Big Data Computing	Matrix Analysis with Its Applications

 MD

29/7





# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE GWALIOR

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

## Scheme of Examination for IV Semester

Annexure - I

### B. Tech. Offered by Department of Engineering Mathematics & Computing

Session 20-21

S. No	Subject Code	Category Code	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hours per week			Total Credits	Mode of Teaching (Offline/Online)	Mode of Exam
				Theory Slot				Practical Slot				L	T	P			
				End Sem.		Mid Sem. Exam.	Quiz/Assignment	End Sem	Lab Work & Sessional	Skill Based Mini Project							
				End Term Evaluation	<sup>s</sup> Proficiency in subject/course												
1.	250401	DC	Transform and Vector Calculus	50	10	20	20	-	-	-	100	2	1	-	3	Offline (3/0)	PP
2.	250402	DC	Data Base and Management System & SQL	50	10	20	20	60	20	20	200	2	1	2	4	Blended (2/1)	PP
3.	250403	DC	Theory of Computation	50	10	20	20				100	2	1	-	3	Blended (2/1)	MCQ
4.	250404	DC	Design & Analysis of Algorithm	50	10	20	20				100	2	1	-	3	Blended (2/1)	PP
5.	250405	DC	Number Theory and Cryptography	50	10	20	20	-	-	-	100	2	1	-	3	Offline (3/0)	PP
6.	100009	MC	Cyber Security	50	10	20	20	-	-	-	100	2	-	-	2	Online (2/0)	MCC
7.	250406	DLC	Programming in Python	-	-	-	-	60	20	20	100	-	-	2	1	Offline	A+C
8.	200XXX	CLC	Novel Engaging Course	-	-	-	-	-	50		50	-	-	2	1	Interactive	SO
<b>Total</b>				<b>300</b>	<b>60</b>	<b>120</b>	<b>120</b>	<b>120</b>	<b>90</b>	<b>40</b>	<b>850</b>	<b>12</b>	<b>5</b>	<b>3</b>	<b>20</b>		
<b>Summer Internship Project-II (Soft skills Based) for two weeks duration: Evaluation in V Semester</b>																	
9.	100001	MAC	Indian Constitution and Traditional Knowledge	50	10	20	20	-	-	-	100	2	-	-	Grade	Online	MCQ

<sup>s</sup>Proficiency in course/subject – includes the weight age towards ability/ skill/ competence /knowledge level /expertise attained /attendance etc. in that particular course/subject

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

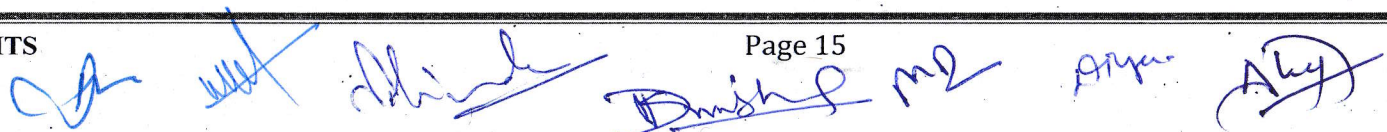
mb

DEAN (ACADEMICS)

M.I.T.S

GWALIOR

Deptt. of Engg. Mathematics & Computing, MITS



# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Department of Engineering Mathematics & Computing

For batches admitted in Academic Session 2020-21 Onwards

### Scheme of Examination B. Tech. Offered by Department of Engineering Mathematics & Computing III Semester

S. No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hours per week			Total Credits	Mode of Teaching (Offline/Online)	Mode of Exam.
				Theory Slot				Practical Slot				L	T	P			
				End Sem.		Mid Sem. Exam.	Quiz/Assignment	End Sem	Lab Work & Sessional	Skill Based Mini Project							
				End Term Evaluation	Proficiency in subject/course												
1.	250301	DC	Simulation Modeling and Analysis	50	10	20	20	-	-	-	100	2	1	-	3	Blended (2/1)	MCQ
2.	250302	DC	Discrete Mathematical Structures	50	10	20	20	-	-	-	100	3	-	-	3	Offline(3/0)	PP
3.	250303	DC	Operating System Concepts	50	10	20	20	-	-	-	100	2	1	-	3	Blended (2/1)	PP
4.	250304	DC	Data Structures and Algorithms	50	10	20	20	60	20	20	200	2	-	2	3	Offline (3/0)	PP
5.	250305	DC	Numerical Techniques	50	10	20	20	-	-	-	100	2	1	-	3	Offline (3/0)	PP
6.	250306	DLC	Computing Lab	-	-	-	-	60	20	20	100	-	-	2	1	Offline (2/0)	SO
7.	250307	DLC	Self-learning/ Presentation <sup>#</sup>	-	-	-	-	-	40	-	40	-	-	2	1	Online +Mentoring	SO
8.	200XXX	CLC	Novel Engaging Course	-	-	-	-	50	-	-	50	-	-	2	1	Interactive	SO
9.	250308	DLC	Summer Internship Project-I (Institute Level Evaluation)	-	-	-	-	60	-	-	60	-	-	4	2	Offline	SO
Total				250	50	100	100	230	80	40	850	11	3	6	20		
10.	100002	MAC	Biology for Engineers	50	10	20	20	-	-	-	100	2	-	-	Grade	Online	MCQ

<sup>#</sup>Proficiency in course/subject – includes the weight age towards ability/ skill/ competence /knowledge level /expertise attained /attendance etc. in that particular course/subject

<sup>#</sup>compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance, assignments and presentation

Mode of Teaching					Mode of Examination					Total Credits	
Theory		Blended	Lab	NEC	Theory			Lab	SIP/ SLP/ NEC		
Offline	Online				Offline	Interactive	PP				A+O
9	-	4	2	4	1	4	-	1	1		3
45%	-	20%	10%	20%	5%	33.5%	-	22%	11%	33.5%	Credits %

MCQ: Multiple Choice Question ,AO: Assignment + Oral, OB: Open Book, P: Pen Paper, SO: Submission and Oral

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

Department of Engineering Mathematics & Computing

**For batches admitted in Academic Session 2020-21 Onwards**

## Scheme of Examination

B.Tech. Offered by Department of Engineering Mathematics & Computing

### II Semester

S.No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Exam	Mode of Teaching
				Theory Slot			Practical Slot				L	T	P			
				End Sem.	Mid Sem Exam.	Quiz/ Assignment	End Sem.	Lab work & Sessional	Skill Based Mini Project							
1.	250201	DC	Computer Organization and Logic Design	60	20	20	-	-	-	100	3	-	-	3	PP	Blended (2/1)
2.	250202	DC	Differential Equations	60	20	20	-	-	-	100	3	1	-	4	PP	Offline
3.	250203	DC	Object Oriented Methodology and Programming with C++	60	20	20	60	20	20	200	2	1	2	4	A+O	Blended (3/1)
4.	250204	DC	Linear Algebra	60	20	20	-	-	-	100	3	1	-	4	PP	Offline
5.	100016	HSMC	Technical Language	60	20	20	-	-	-	100	3	-	-	3	PP	Blended (2/1)
6.	100017	HSMC	Language Lab.	-	-	-	60	20	20	100	-	-	2	1	SO	Offline
<b>Total</b>				<b>300</b>	<b>100</b>	<b>100</b>	<b>120</b>	<b>40</b>	<b>40</b>	<b>700</b>	<b>14</b>	<b>03</b>	<b>02</b>	<b>19</b>		

<sup>b</sup>Proficiency in course/subject – includes the weightage towards ability/ skill/ competence /knowledge level /expertise attained /attendance etc. in that particular course/subject

MCQ: Multiple Choice Question, AO: Assignment + Oral, OB: Open Book, P: Pen Paper, SO: Sessional and Oral

Mode of Teaching				Mode of Examination							Total Credits
Theory		Lab	NEC	Theory			Lab	SIP/SLP/NEC			
Offline	Online			PP	A+O	MCQ			SO	SO	
Blended		Offline	Interactive								
	Offline	Online									
8	-	6	3	2	-	3	1	1	1	-	19
44%	-	31.5%	16%	10.5%	-	60%	20%	20%	100%	-	Credits %

*v.p. Shinde*  
v.p. Shinde

*(Dr. J. K. Karm)*

*M. D. Shinde*  
**DEAN (ACADEMICS)**  
**M.I.T.S**  
**GWALIOR**

# MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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

## Department of Engineering Mathematics & Computing

**B. Tech. I Semester** *For batches admitted in Academic Session 2020-21 Onwards*


### B. Tech. I Semester (Mathematics & Computing)


Annexure-I


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.	Lab work & Sessional						
1.	250101	DC	Introduction to Computing	60	20	20			100	3	-	-	3	MCQ
2.	<del>250102</del> 230102	DC	Introduction to Computer Programming	60	20	20	60	40	200	3	-	2	4	A+O
3.	<del>250102</del>	DC	Elements of Calculus	60	20	20			100	3	1	-	4	PP
4.	250103	DC	Statistical Techniques	60	20	20	-	-	100	3	1	-	4	PP
5.	100015	HSMC	Energy, Environment, Ecology & Society	60	20	20	-	-	100	3	-	-	3	MCQ
6.	<del>250104</del>	HSMC	Computing Lab				60	40	100			2	1	SO
	<del>250105</del>	<del>DLCI</del>	<b>Total</b>	<b>300</b>	<b>100</b>	<b>100</b>	<b>120</b>	<b>80</b>	<b>700</b>	<b>15</b>	<b>2</b>	<b>4</b>	<b>19</b>	
NSS/NCC				Qualifier										


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

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15/12/2020

**DEAN (ACADEMICS)**  
**M.I.T.S**  
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NAAC Accredited with A++ Grade

*\$\$The mode of exam of a course is based on the following:*

<b>Nature of Subject/Course</b>	<b>Theory/ Practical</b>	<b>Learning Levels</b>	<b>Preferable Mode of Examination</b>
Theoretical	Theory	Remembering, Understanding, Applying	MCQ Based
Computational/ Mathematical	Theory	Applying, Analysing	Pen Paper
Design / Drawing / Programming	Theory	Applying, Analysing, Evaluating, Creating	Assignment + Oral
Practical (Programming/ Knowledge/ Application)	Practical	Understanding, Applying	Submission+ Oral
Practical (Design/Analysis)	Practical	Analysing, Evaluating	Assignment + Oral
Projects	Practical	Creating, Evaluating, Analyzing	Submission+ Oral
MOOCs	Theory	As decided by the course mentor	Assignment + Proctored Examination