

Admitted  
2020-21

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
(A Govt. Aided UGC Autonomous Institute Affiliated to RGPV, Bhopal) Annexure-14

Scheme of Examination  
B.Tech. I Semester (Computer Science & Engineering)

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 Exam	Mode of Teaching (Offline/Online)
				Theory Slot				Practical Slot				L	T	P			
				End Sem.	Mid Sem.	Quiz/Assignment	End Sem.	Lab work / Sessional	Skill Base mini Project								
										End Term Evaluation							
1.	230102	DC	Introduction to Computer Programming	50	10	20	20	60	20	20	200	2	1	2	4	A+O	Offline (3/0)
2.	100022	ESC	Basic Electrical & Electronics Engineering	50	10	20	20	60	20	20	200	2	1	2	4	MCQ	Blended (2/1)
3.	100020	ESC	Basic Civil Engineering & Mechanics	50	10	20	20	-	-	-	100	3	-	-	3	PP	Blended (2/1)
4.	100021	ESC	Basic Mechanical Engineering	50	10	20	20	-	-	-	100	3	-	-	3	MCQ	Blended (2/1)
5.	100015	HSMC	Energy, Environment, Ecology & Society	50	10	20	20	-	-	-	100	3	-	-	3	MCQ	Online (0/3)
6.	150111	DLC	IT workshop	-	-	-	-	60	20	20	100	-	-	4	2	SO	Offline
Total				250	50	100	100	180	60	60	800	13	02	08	19		
Induction Programme of 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.																	
NSS / NCC																	
Qualifier																	

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

<sup>3</sup>Proficiency in course/subject - includes the weightage towards ability/ skill/ competence /knowledge level /expertise attained /attendance etc. in that particular course/subject

Mode of Teaching				Mode of Examination					Total Credits
Theory		Blended		Lab	Theory			Lab	
Offline	Online	Offline	Online	Offline	PP	A+O	MCQ	SO	
3	3	6	3	4	3	4	10	2	
15.78	15.78	31.5	15.78	21.0	15.8	21.0	52.6	10.5	
Credits %									

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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Scheme of Examination  
B.Tech. II Semester (Computer Science & Engineering)

*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 Exam	Mode of Teaching (Offline/Online)
				Theory Slot				Practical Slot				L	T	P			
				End Sem.	Mid Sem.	Quiz/Assignment	End Sem.	Lab work / Sessional	S Skill Base mini Project								
										End Term Evaluation							
1.	100011	BSC	Engineering Mathematics -I	50	10	20	20	-	-	-	100	3	1	-	4	PP	Offline
2.	150211	DC	Data Structures	50	10	20	20	60	40	20	200	2	1	2	4	PP	Blended (2:1)
3.	150212	DC	Object Oriented Programming & Methodology	50	10	20	20	60	20	20	200	3	-	2	4	A+O	Blended (2:1)
4.	150213	DC	Digital Electronics	50	10	20	20	-	-	-	100	2	1	-	3	PP	Blended (2:1)
5.	100016	HSMC	Technical Language	50	10	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>250</b>	<b>50</b>	<b>100</b>	<b>100</b>	<b>180</b>	<b>100</b>	<b>20</b>	<b>800</b>	<b>13</b>	<b>03</b>	<b>06</b>	<b>19</b>		
Summer Internship Project - I (Institute Level) (Qualifier): Minimum two-week duration: Evaluation in III Semester.																	
NSS / NCC							Qualifier										

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

Proficiency in course/subject - includes the weightage towards ability/ skill/ competence /knowledge level /expertise attained /attendance etc. in that particular course/subject

Mode of Teaching				Mode of Examination					Total Credits
Theory		Blended		Lab	Theory			Lab	
Offline	Online	Offline	Online	Offline	PP	A+O	MCQ	SO	
4	-	8	4	3	14	4	-	1	19
21.0	-	42.10	21.0	15.78	73.68	21.0	-	5.26	Credits %

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR**  
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Scheme of Examination  
B.Tech. III Semester (Computer Science and Engineering)

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

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 Term Evaluation		Continuous Evaluation		End Sem. Exam	Continuous Evaluation									
				End Sem. Exam	Proficiency in subject/course	Mid Sem. Exam.	Quiz/Assignment		Lab Work & Sessional	Skill based mini project								
1.	100025	BSC	Engineering Mathematics-II	50	10	20	20	-	-	-	100	3	-	-	3	Offline (3/0)	PP	
2.	150311	DC	Computer System Organization	50	10	20	20	-	-	-	100	2	1	-	3	Blended(2/1)	PP	
3.	150312	DC	Operating Systems	50	10	20	20	-	-	-	100	2	1	-	3	Blended(2/1)	PP	
4.	150313	DC	Computer Graphics	50	10	20	20	60	20	20	200	2	1	2	4	Blended (2/1)	PP	
5.	150314	DC	Design & Analysis of Algorithms	50	10	20	20	60	20	20	200	2	1	2	4	Blended (2/1)	PP	
6.	150315	DLC	Computer Hardware & Troubleshooting Lab	-	-	-	-	60	20	20	100	-	-	4	2	Offline	SO	
7.	150316	SEMINAR/SELF STUDY	Self-learning/Presentation (SWAYAM/NPTEL/MOOC)#	-	-	-	-	-	40	-	40	-	-	2	1	Online + Mentoring	SO	
8.	200XXX	CLC	Novel engaging courses	-	-	-	-	50	-	-	50	-	-	2	1	Interactive	SO	
9.	150317	DLC	Summer Internship Project-I (Institute Level) (Evaluation)	-	-	-	-	60	-	-	60	-	-	4	2	Offline	SO	
<b>Total</b>				<b>250</b>	<b>50</b>	<b>100</b>	<b>100</b>	<b>290</b>	<b>100</b>	<b>60</b>	<b>950</b>	<b>11</b>	<b>4</b>	<b>16</b>	<b>23</b>			
10.	1000002	MAC	Biology for Engineers (Mandatory Audit Course)SS	50	10	20	20	-	-	-	100	2	-	-		Grade	Online	MCQ

MCQ: Multiple Choice Question AO: Assignment + Oral OB: Open Book PP: Pen Paper SO: Submission & Oral CLC College level course  
 \*compulsory registration for one online course using SWAYAM/NPTEL/ MOOC, evaluation through attendance, assignments and presentation, Additional Foundation course for branch change students, AC-06 dated 05/12/2020  
 \*subjects which are of more theoretical in nature, \*\*subjects which are of more designing/algorithmic/computational in nature,\*\*\*subjects which are of partially computational/design /programming nature (i.e. conceptual building part can be covered in online mode + computing /design part in offline mode or for MOOC based courses, the mentoring slot can be treated as offline mode delivery of partial contents to make the teaching learning "Blended"), Proficiency in course/subject – includes the weightage towards ability/ skill/ competence /knowledge level /expertise attained /attendance ,one minute paper writing etc. in that particular course/subject.SS Course will run for Group A/B in III/IV semester respectively. Passing is optional; however, a separate mark sheet will be issued to those who qualify.

Mode of Teaching				Mode of Examination							Total Credits
Theory		Lab	NEC	Theory			Lab	SIP/ SLP/ NEC			
Offline	Online	Blended	Offline	Interactive	PP	A+O	MCQ	SO	SO		
3	-	8	4	7	1	17	-	-	2	4	23
13.04	-	34.78	17.39	30.43	4.34	73.91	-	-	8.69	17.39	Credits %

*MC*  
 DEAN (ACADEMICS)  
 MLTS  
 GWALIOR

*3/1/21*

**(A Govt. Aided UGC Autonomous Institute Affiliated to RGPV, Bhopal)**  
**Scheme of Examination**  
**B.Tech. IV Semester (Computer Science and Engineering)**

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

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			End Sem.	L	T				P
				End Term Evaluation		Continuous Evaluation		Continuous Evaluation									
				End Term Evaluation	Proficiency in subject/course	Mid Sem. Exam.	Quiz/Assignment	Lab Work & Sessional	Skill based mini project								
1.	150411	DC	Computer Networks	50	10	20	20	60	20	20	200	3	-	2	4	Blended (2/1)	PP
2.	150412	DC	Database Management System	50	10	20	20	60	20	20	200	2	1	2	4	Blended (2/1)	PP
3.	150413	DC	Software Engineering	50	10	20	20	-	-	-	100	3	-	-	3	Blended (2/1)	MCQ
4.	150414	DC	Theory of Computation	50	10	20	20	-	-	-	100	2	1	-	3	Blended (2/1)	PP
5.	150415	DLC	Programming Lab Python Programming	-	-	-	-	60	20	20	100	-	-	4	2	Offline	SO
6.	150416	DC	Discrete Structures	50	10	20	20	-	-	-	100	3	-	-	3	Blended (2/1)	PP
7.	2000XXX	CLC	Novel engaging courses	-	-	-	-	50	-	-	50	-	-	2	1	Interactive	SO
<b>Total.</b>				<b>250</b>	<b>50</b>	<b>100</b>	<b>100</b>	<b>230</b>	<b>60</b>	<b>60</b>	<b>850</b>	<b>13</b>	<b>2</b>	<b>10</b>	<b>20</b>		
8.	1000001	MAC	Indian Constitution and Traditional Knowledge (Mandatory Audit Course) SS	50	10	20	20	-	-	-	100	2	-	-	Grade	Online	MCQ
Summer Internship Project-II (Soft skills Based) for two weeks duration: Evaluation in V Semester																	

MCQ: Multiple Choice Question    AO: Assignment + Oral    OB: Open Book    PP: Pen Paper    SO: Submission & Oral    CLC: College level course

Proficiency in course/subject – includes the weightage towards ability/ skill/ competence /knowledge level /expertise attained /attendance ,one minute paper writing etc. in that particular course/subject,SS Course will run for Group B in III/IV semester respectively.

Mode of Teaching				Mode of Examination							Total Credits
Theory		Lab	NEC	Theory			Lab	SIP/SLP/NEC	SO		
Offline	Online			Offline	Interactive	PP				A+O	
-	-	10	5	4	1	14	-	3	2	1	20
-	-	50	25	20	5	70	-	15	10	5	Credits %

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, BHOPAL  
(A Govt. Aided UGC Autonomous Institute Affiliated to RGPV, Bhopal)

Scheme of Examination  
B.Tech. V Semester (Computer Science and Engineering)

For batches admitted in Academic Session 2020-21

No.	Subject Code	Category Code	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hours per week			Total Credits	Mode of Teaching	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.	150511	DC	Data Science	50	10	20	20	60	20	20	200	2	1	2	4	Blended (2/1)	MCQ
2.	150512	DC	Networking with TCP/IP	50	10	20	20	-	-	-	100	3	-	-	3	Blended (2/1)	PP
3.	150513	DC	Information Security	50	10	20	20	60	20	20	200	3	-	2	4	Blended (2/1)	PP
4.	150514	DC	Compiler Design	50	10	20	20	-	-	-	100	3	1	-	4	Blended (2/1)	PP
5.	150515	DC	Artificial Intelligence	50	10	20	20	-	-	-	100	2	1	-	3	Blended (2/1)	PP
6.	150516	DLC	Minor Project-I**	-	-	-	-	60	40	-	100	-	-	4	2	Offline	SO
7.	150517	DLC	Summer Internship Project-II (Evaluation) (DLC-4)	-	-	-	-	60	-	-	60	-	-	4	2	Offline	SO
8.	150518	SEMINAR/SELF STUD	Self-learning/Presentation (SWAYAM/NPTEL/MOOC) #	-	-	-	-	-	40	-	40	-	-	2	1	Online and Mentoring	SO
9.	2000XXX	CLC	Novel Engaging Course	-	-	-	-	50	-	-	50	-	-	2	1	interactive	SO
Total				250	50	100	100	290	120	40	950	13	3	16	24		
10.	1000006	MAC	Disaster Management	50	10	20	20	-	-	-	100	2	-	-	Grade	Online	MCQ
11.	1000005	MAC	Project Management and Financing	50	10	20	20	-	-	-	100	2	-	-	Grade	Online	MCQ

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

<sup>5</sup> proficiency in course/subject includes the weightage towards ability/skill/competence/knowledge level/ expertise attained etc. in that particular course/subject.  
<sup>55</sup> MCQ: Multiple Choice Question <sup>56</sup> AO: Assignment + Oral <sup>57</sup> PP: Pen Paper <sup>58</sup> SO: Submission + Oral  
<sup>59</sup> The Minor Project-I may be evaluated by an internal committee for awarding sessional marks.  
<sup>60</sup> Compulsory registration for one online course using SWAYAM/NPTEL/MOOC, evaluation through attendance, assignments and presentation  
 Note: Students of 2020-21 admitted batch needs to appear and complete an additional MAC course of 30 Hrs. duration on Project Management & Financing / other modules related to futuristic technologies (Drones/ Robotics etc )

Mode of Teaching				Mode of Examination					Total Credits
Theory		Lab	NEC	Theory		Lab	SIP/SLP/NEC	SO	
Offline	Online			Offline	Interactive				PP
									24
									Credits %

*[Handwritten signatures and marks]*

**Department of Computer Science & Engineering  
Scheme of Evaluation**

**B. Tech. VI Semester (Computer Science and Engineering) for admitted batch 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.	150611	DC	Cloud Computing & Virtualization	50	10	20	20	60	20	20	-	-	200	3	-	2	4	Offline	PP	
2.	150612	DC	Digital Image Processing	50	10	20	20	60	20	20	-	-	200	3	-	2	4	Offline	PP	
3.	150613	DC	Machine Learning	50	10	20	20	60	20	20	-	-	200	3	-	2	4	Offline	PP	
4.	DE	DE	Departmental Elective* (DE-1)	-	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	
5.	OC	OC	Open Category (OC-1)	50	10	20	20	-	-	-	-	-	100	3	-	-	3	Offline	PP	
6.	150614	DLC	Minor Project-II	-	-	-	-	60	40	-	-	-	100	-	-	4	2	Offline	SO	
7.	200XXX	CLC	Novel Engaging Course (Informal Learning)	-	-	-	-	50	-	-	-	-	50	-	-	2	1	Interactive	SO	
<b>Total</b>				<b>200</b>	<b>40</b>	<b>80</b>	<b>80</b>	<b>290</b>	<b>100</b>	<b>60</b>	<b>25</b>	<b>75</b>	<b>950</b>	<b>15</b>	<b>-</b>	<b>12</b>	<b>21</b>	<b>-</b>	<b>-</b>	
8.	1000007	MAC	Intellectual Property Rights (IPR)	50	10	20	20	-	-	-	-	-	100	2	-	-	GRADE	Online	MCQ	

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

**Additional Course for Honours or minor Specialization**

Permitted to opt for maximum two additional courses for the award of Honours or Minor specialization

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

\*Course run through SWAYAM/NPTEL/ MOOC Learning Based Platform with credit transfer

Mode of Teaching				Mode of Examination							Total Credits
Offline	Online	Blended		Lab	Theory			Lab	NEC		
		Offline	Online		Offline	Interactive	PP			A+O	
12	3	-	-	5	1	15	-	3	2	1	21
57.14	14.28	-	-	23.8	4.76	71.42	-	14.28	9.52	4.76	

- OC-1** 1) 910100- Data Structures 2) 910101- Python Programming  
**DE-1** 1) 150658- Ethical Hacking 2) 150651- Data Analytics with Python 3) 150659- Blockchain and its Applications