

**III SEMESTER**

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination			Credits	
					Theory/lecture	Tutorials	Practical/Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks		Total Marks
	Type	Code			L	T	P	S					
1	BSC	MVJ21MA31B	Discrete Mathematical Structures and Probability	MAT	3	2	0	-	3	50	50	100	4
2	PCC	MVJ21CS32	Object Oriented Programming	CS	3	2	0	-	3	50	50	100	4
3	PCC	MVJ21CS33	Operating System	CS	3	0	0	-	3	50	50	100	3
4	IPCC	MVJ21CS34	Data Structure and Applications	CS	3	0	2	-	3	100	100	200	4
5	IPCC	MVJ21CS35	Analog and Digital Electronics	CS	3	0	2	Y	3	100	100	200	4
6	HSMC	MVJ21SK/BK36	Kannada	Any Department	1	0	0	-	2	50	50	100	1
7	AEC	MVJ21CSA37	UNIX Shelling Programming	CS	1	0	2	-	2	50	50	100	2
8	BSC	MVJ21MATDIP-I	Additional Mathematics-I	MA	1	2	0	-	3	50	50	100	-
<b>Total</b>					<b>18/19</b>	<b>4/6</b>	<b>6/6</b>	<b>-</b>	<b>19/22</b>	<b>450/500</b>	<b>450/500</b>	<b>900/1000</b>	<b>22</b>

**Note: BSC: Basic Science Course, PCC: Professional Core Course, IPCC: Integrated Professional Core Course, HSMC: Humanity and Social Science & Management Course, AEC: Ability Enhancement Course, L: Lecture, T: Tutorial, P: Practical, S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.**

**Additional Mathematics-I:** The course is a non-credit mandatory course (NMC) prescribed for III semester lateral entry diploma holders admitted to programs. The successful completion of the program is mandatory for the award of the degree.

**IV SEMESTER**

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination				Credits
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
	L	T			P	S							
1	BSC	MVJ21MA41B	Operations Research, Numerical and Statistical Methods	MA	2	2	0	-	3	50	50	100	3
2	PCC	MVJ21CS42	Microcontroller and Embedded Systems	CS	3	0	0	-	3	50	50	100	3
3	PCC	MVJ21CS43	Computer Organisations and Architecture	CS	3	0	0	-	3	50	50	100	3
4	IPCC	MVJ21CS44	Python Programming	CS	3	0	2	-	3	100	100	200	4
5	IPCC	MVJ21CS45	Design Analysis of Algorithms	CS	3	0	2	Y	3	100	100	200	4
6	HSMC	MVJ21CPH46	Constitution of India and Professional Ethics and Cyber Law	Any Department	1	0	0	-	2	50	50	100	1
7	AEC	MVJ21CSA47	.Net and C# Framework	CS	1	0	2	-	2	50	50	100	2
8	INT	MVJ21INT48	Summer Internship-I	Should be completed during the intervening period of II and III semesters. <b>Intra-College Internship</b>					-	-	-	2	
9	BSC	MVJ21MATDIP-II	Additional Mathematics-II	MA	1	2	0	-	3	50	50	100	-
<b>Total</b>					<b>16/17</b>	<b>2/4</b>	<b>6/6</b>		<b>19/22</b>	<b>450/500</b>	<b>450/500</b>	<b>900/1000</b>	<b>22</b>

**Note: BSC: Basic Science Course, PCC: Professional Core Course, IPCC: Integrated Professional Core Course, HSMC: Humanity and Social Science & Management Course, AEC: Ability Enhancement Course, INT: Internship, L: Lecture, T: Tutorial, P: Practical, S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.**

**Additional Mathematics-II:** The course is a non-credit mandatory course (NCMC) prescribed for III semester lateral entry diploma holders admitted to BE programs. The successful completion of the program is mandatory for the award of the degree.

**Summer Internship-I:** Viva voice will be conducted for the 03 weeks inter/intra institutional summer internship activities carried out during the intervening period of II and III semesters. The internship will be considered as a head of passing and will be considered for the award of degree. Those, who do not take up / complete the internship will be declared fail and will have to complete during subsequent examination after satisfying the internship requirements.

**V SEMESTER**

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination				Credits
	Type	Code			Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	HSMC	MVJ21CS51	Software Engineering Management	CS	3	0	0	-	3	50	50	100	3
2	PCC	MVJ21CS52	Theory of Computation	CS	3	0	0	-	3	50	50	100	3
3	IPCC	MVJ21CS53	Database Management Systems	CS	2	2	2	-	3	100	100	200	4
4	IPCC	MVJ21CS54	Web Programming	CS	2	2	2	Y	3	100	100	200	4
5	PEC	MVJ21CS55X	Professional Elective – I	CS	3	0	0	-	3	50	50	100	3
6	HSMC	MVJ21ENV56	Environmental Studies	CV	1	0	0	-	2	50	50	100	1
7	AEC	MVJ21RMI57	Research Methodology & IPR	AE	1	2	0	-	2	50	50	100	2
8	UHV	MVJ21UHV58	Universal Human Values	CV	2	0	0	-	2	50	50	100	2
<b>Total</b>					<b>17</b>	<b>6</b>	<b>4</b>	<b>-</b>	<b>21</b>	<b>500</b>	<b>500</b>	<b>1000</b>	<b>22</b>

**Note: HSMC: Humanity and Social Science & Management Course, PCC: Professional Core Course, IPCC: Integrated Professional Core Course, PEC: Professional Elective Course, AEC: Ability Enhancement Course, UHV: Universal Human Values, L: Lecture, T: Tutorial, P: Practical, S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.**

Course Code	Professional Elective – I
MVJ21CS551	Mobile computing
MVJ21CS552	Visualization techniques
MVJ21CS553	Artificial intelligence
MVJ21CS554	Compiler design

**VI SEMESTER**

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination				Credits
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
	L	T			P	S							
1	HSMC	MVJ21CS61	Project management with OOMD	CS	3	0	0	-	3	50	50	100	3
2	IPCC	MVJ21CS62	Web Development	CS	3	0	2	Y	3	100	100	200	4
3	IPCC	MVJ21CS63	Machine Learning	CS	3	0	2	-	3	100	100	200	4
4	OEC	MVJ21CS64X	Open Elective-I	CS	3	0	0	-	3	50	50	100	3
5	OEC	MVJ21CS65X	MOOC Courses (Open Elective-II)	CS	A twelve-week course should be selected from online platforms like NPTEL/SWAYAM							3	
6	AEC	MVJ21CSA66	ANGULAR JS AND NODE JS	CS	2	0	0	-	2	50	50	100	1
7	PRJ	MVJ21CSMP67	Mini Project	CS	0	0	4	-	3	50	50	100	2
8	INT	MVJ21INT68	Summer Internship-II	CS	Completed during the intervening period of IV and V semesters				50	50	100	2	
<b>Total</b>					<b>14</b>	<b>0</b>	<b>8</b>	<b>-</b>	<b>17</b>	<b>450</b>	<b>450</b>	<b>900</b>	<b>22</b>
<b>Note: HSMC: Humanity and Social Science &amp; Management Course, IPCC: Integrated Professional Core Course, OEC: Open Elective Course, AEC: Ability Enhancement Course, PRJ: Project, INT: Internship, L: Lecture, T: Tutorial, P: Practical, S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.</b>													
<b>Summer Internship-II:</b> Viva voice will be conducted for the 04 weeks Industrial/Govt./ NGO/ MSME/Rural Internship/Innovation/Entrepreneurship summer internship activities carried out during the intervening period of IV and V semesters. The internship will be considered as a head of passing and will be considered for the award of degree. Those, who do not take up / complete the internship will be declared fail and will have to complete during subsequent examination after satisfying the internship requirements.													

Course Code	Open Elective-I
MVJ21CS641	Python Programming
MVJ21CS642	Web Technologies
MVJ21CS643	Operating systems
MVJ21CS644	Mobile Application Development

**VII SEMESTER**

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination				Credits
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
	Type	Code			L	T	P	S					
1	IPCC	MVJ21CS71	Internet of Things	CS	3	0	2	-	3	100	100	200	4
2	PEC	MVJ21CS72X	Professional Elective-II	CS	3	0	0	-	3	50	50	100	3
3	PEC	MVJ21CS73X	Professional Elective-III	CS	3	0	0	-	3	50	50	100	3
4	OEC	MVJ21CS74X	Open Elective-III	CS	3	0	0		3	50	50	100	3
5	PRJ	MVJ21CSP75	Project Phase-I	CS	0	0	4		3	50	50	100	2
6	AEC	MVJ21CSA76	Ability Enhancement Course-4	CS	A four-week course should be selected from online platforms							1	
<b>Total</b>					<b>12</b>	<b>0</b>	<b>6</b>		<b>15</b>	<b>300</b>	<b>300</b>	<b>600</b>	<b>16</b>

**Note: IPCC: Integrated Professional Core Course, PEC: Professional Elective Course, OEC: Open Elective Course, PRJ: Project, AEC: Ability Enhancement Course, L: Lecture, T: Tutorial, P: Practical, S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.**

Course Code	Professional Elective-II	Course Code	Professional Elective-III	Course Code	Open Elective-II
MVJ21CS721	Artificial intelligence	MVJ21CS731	Game design & development	MVJ21CS741	Introduction to data science
MVJ21CS722	Green computing	MVJ21CS732	Cloud computing	MVJ21CS742	Block chain technologies
MVJ21CS723	Ethical hacking	MVJ21CS733	Block chain technologies	MVJ21CS743	Visualization techniques
MVJ21CS724	Digital image processing	MVJ21CS734	Big data analytics	MVJ21CS744	Ethical hacking

**VIII SEMESTER**

Sl. No.	Course		Course Title	BOS	Teaching Hours/Week				Examination				Credits
	Type	Code			Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	PRJ	MVJ21CSP81	Project Phase-II	CS	-	-	20	-	3	50	50	100	10
2	INT	MVJ21INT82	Research /Industrial Internship	CS	Should be completed in 24 weeks, beginning after the sixth semester, and continuing through the seventh and eighth semesters.				3	50	50	100	5
3	SEM	MVJ21CSS83	Seminar	CS	-	-	2	-	-	100	-	100	1
<b>Total</b>					-	-	22	-	6	200	100	300	16

**Note: PRJ:** Project, **INT:** Internship, **SEM:** Seminar, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation.

**Research/Industrial Internship:** Viva voice will be conducted for the 24 weeks Research/Industrial/Rural Internship activities carried out during beginning after the sixth semester test and continuing through the seventh and eighth semesters. The internship will be considered as a head of passing and will be considered for the award of degree. Those, who do not take up / complete the internship will be declared fail and will have to complete during subsequent examination after satisfying the internship requirements.

HOD CSE

Dean Academics