

MVJ College of Engineering, Whitefield, Bangalore

An Autonomous Institution, Affiliated to VTU, Belagavi

Scheme of Teaching and Examination 2019-20

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

Effective from the academic year 2019-20

III SEMESTER B.E.:

S No	Course		Course Title	Teaching Department	Teaching hours/week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in Hours	CIE Marks	SEE Marks	Total marks	
	Type	Code			L	T	P					
1	BSC	MVJ19MCS31/MIS31	Discrete Mathematical Structures and Probability	Mathematics	2	2	0	3	50	50	100	3
2	PCC	MVJ19CS32/IS32	Data Structures and Applications	CS	3	2	0	4	50	50	100	4
3	PCC	MVJ19CS33	Object Oriented Programming	CS	3	0	0	3	50	50	100	3
4	PCC	MVJ19CS34	Unix Shell Programming	CS	3	0	0	3	50	50	100	3
5	PCC	MVJ19CS35/IS35	Computer Organization and Architecture	CS	3	0	0	3	50	50	100	3
6	PCC	MVJ19CS36	Analog and Digital Electronics	CS/ECE	3	0	0	3	50	50	100	3
7	PCC	MVJ19CSL37	Data structures and Applications Laboratory	CS	0	0	4	3	50	50	100	2
8	PCC	MVJ19CSL38	Analog and Digital Electronics Laboratory	CS	0	0	4	3	50	50	100	2
9	HSMC	MVJ19SK/BK39	Kannada	Humanities	2	0	0	3	50	50	100	1
		MVJ19CPH303	CPH		2	0	0	3	50	50		
10	BSC	MVJ19MATDIP301	Additional Mathematics-1	Mathematics				3	50	50	100	-
Total					20	0	8	30	500	500	1000	24

Note: BSC: Basic Science, PCC: Professional Core Course , HSMC: Humanity and Social Science
MVJ19MXXDIP301- Mandatory non-credit course

IV SEMESTER B.E.

S No	Course		Course Title	Teaching Department	Teaching hours/week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in Hours	CIE Marks	SEE Marks	Total marks	
	L	T			P							
1	BSC	MVJ19MCS41	Operations Research, Numerical and Statistical Methods	Mathematics	2	2	0	3	50	50	100	3
2	PCC	MVJ19CS42	Analysis and Design of Algorithms	CS	3	2	0	4	50	50	100	4
3	PCC	MVJ19CS43	Software Engineering	CS	3	0	0	3	50	50	100	3
4	PCC	MVJ19CS44	Operating Systems	CS	3	0	0	3	50	50	100	3
5	PCC	MVJ19CS45	Embedded Systems	CS	3	0	0	3	50	50	100	3
6	PCC	MVJ19CS46	Data Communication	CS	3	0	0	3	50	50	100	3
7	PCC	MVJ19CSL47	Analysis and Design of Algorithms Lab	CS	0	0	4	3	50	50	100	2
8	PCC	MVJ19CSL48	Micro Controller and Embedded Systems Lab	CS	0	0	4	3	50	50	100	2
9	HSMC	MVJ19SK/BK49	Kannada	Humanities	2	0	0	3	50	50	100	1
		MVJ19CPH403	CPH		2	0	0	3	50	50		
10	BSC	MVJ19MATDIP401	Additional Mathematics-2	Mathematics				3	50	50	100	-
Total					17	2	12	30	500	500	1000	24

Note: BSC: Basic Science, PCC: Professional Core Course , HSMC: Humanity and Social Science
MVJ19MXXDIP401- Mandatory non-credit course

V SEMESTER B.E.

S No	Course		Course Title	Teaching Department	Teaching hours/week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in Hours	CIE Marks	SEE Marks	Total marks	
	Type	Code			L	T	P					
1	HSMC	MVJ19PCC51	IT Infrastructure Management	CS	3	0	0	3	50	50	100	3
2	PCC	MVJ19CS52	Data base Management Systems	CS	3	0	0	3	50	50	100	4
3	PCC	MVJ19CS53	Computer Networks	CS	3	0	0	3	50	50	100	4
4	PCC	MVJ19CS54	Web Programming	CS	3	0	0	3	50	50	100	3
5	PE	MVJ19CS55X	Professional Elective – I	CS	3	0	0	3	50	50	100	3
6	PCC	MVJ19CSL56	Web Programming Lab	CS	0	0	4	3	50	50	100	2
7	PCC	MVJ19CSL57	Database management Systems Lab	CS	0	0	4	3	50	50	100	2
8	PCC	MVJ19CSL58	Communication Network Lab	CS	0	0	4	3	50	50	100	2
9	HSMC	MVJ19ENV504	Environmental Studies	Humanities	2	0	0	3	50	50	100	1
Total					17	0	12	27	450	450	900	24

Note: PCC: Professional Core Course , PE: Professional Elective, HSMC: Humanity and Social Science

VI SEMESTER B.E.

S No	Course		Course Title	Teaching Department	Teaching hours/week			Examination				Credits
	Type	Code			Theory Lecture	Tutorial	Practical/ Drawing	Duration in Hours	CIE Marks	SEE Marks	Total marks	
					L	T	P					
1	PCC	MVJ19CS61	Artificial Intelligence	CS	3	2	0	4	50	50	100	4
2	PCC	MVJ19CS62	Cryptography and Network Security	CS	3	2	0	4	50	50	100	4
3	PE	MVJ19CS63X	Professional Elective-II	CS	3	0	0	3	50	50	100	3
4	PE	MVJ19CS64X	Professional Elective-III	CS	3	0	0	3	50	50	100	3
5	OE	MVJ19CS65X	Open Elective-I	CS	3	0	0	3	50	50	100	3
6	PCC	MVJ19CSL66	Artificial Intelligence Laboratory	CS	0	0	4	3	50	50	100	2
7	PCC	MVJ19CSL67	Cryptography and Network Security Laboratory	CS	0	0	4	3	50	50	100	2
8	Proj	MVJ19CSP68	Mini-Project	CS	0	0	2	3	100	-	100	3
Total					15	4	10	26	400	400	800	24
Note: PCC: Professional Core Course , PE: Professional Elective, OE: Open Elective, Proj: Project Work												

VII SEMESTER B.E.

S No	Course		Course Title	Teaching Department	Teaching hours/week			Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Duration in Hours	CIE Marks	SEE Marks	Total marks	
	L	T			P							
1	PCC	MVJ19CS71	Internet of Things	CS	3	2	0	4	50	50	100	4
2	PCC	MVJ19CS72	Machine Learning	CS	3	2	0	4	50	50	100	4
3	PE	MVJ19CS73X	Professional Elective-IV	CS	3	0	0	3	50	50	100	3
4	PE	MVJ19CS74X	Professional Elective-V	CS	3	0	0	3	50	50	100	3
5	OE	MVJ19CS75X	Open Elective-II	CS	3	0	0	3	50	50	100	3
6	PCC	MVJ19CSL76	Internet of Things Lab	CS	0	0	4	3	50	50	100	2
7	PCC	MVJ19CSL77	Machine Learning Lab	CS	0	0	4	3	50	50	100	2
8	Proj	MVJ19CSP78	Project Phase-1	CS	0	0	4	-	50	-	50	2
Total					15	4		23	400	350	750	23

Note: PCC: Professional Core Course , PE: Professional Elective, OE: Open Elective, Proj: Project Work

VIII SEMESTER B.E.

S No	Course		Course Title	Teaching Department	Teaching hours/week			Examination				Credits
					Theory Lecture	Tutorial	Practical /Drawing	Duration in Hours	CIE Marks	SEE Marks	Total marks	
	Type	Code			L	T	P					
3	Proj	MVJ19CSP83	Project Phase-2	CS	0	0	1	3	50	50	100	10
4	Int	MVJ19CS84	Internship	CS	0	0	1	3	50	50	100	3
5	Sem	MVJ19CS85	Seminar	CS	0	0	1	3	50	50	100	1
6	CRT	MVJ19CS86	Certification	Industry/Institute	0	0	0					-
Total								9	150	150	300	14
Note: PCC: Professional Core Course, PE: Professional Elective, OE: Open Elective, Proj: Project Work, Int.: Internship, Sem: Seminar, CRT: Certification Course (Can be carried out during the program period but same will reflect in the final semester grade card)												

Common courses in the same semester among the programs can have course code MVJ19XX32/ MVJ19YY32

Example: MVJ19CS32/ MVJ19IS32

Professional Elective – 1**Open Elective – 1:**

Course Code: PEC	Elective Course Category: Professional Elective Course-I	Course Code: OEC	Elective Course Category: Open Elective Course-1
MVJ19CS551	Graph Theory and Applications	MVJ19CS651	Object Oriented Analysis and Design
MVJ19CS552	Software Testing	MVJ19CS652	Web Technologies
MVJ19CS553	Computer Graphics and Multimedia	MVJ19CS653	Networks and Systems Security
MVJ19CS554	Python Application Programming	MVJ19CS654	Mobile computing

PEC: Professional Elective Course II**PEC: Professional Elective Course III:****PEC: Professional Elective Course IV**

Course Code: PEC	Course Category: Professional Elective Course -II	Course Code: PEC	Elective Course Category: Professional Elective Course -III	Course Code: OEC	Course Category: Professional Elective Course 1V
MVJ19CS631	High Performance Computing	MVJ19CS641	Ethical Hacking	MVJ19CS731	Advanced Java & J2EE
MVJ19CS632	Cloud Computing	MVJ19CS642	Data Science	MVJ19CS732	Soft Computing
MVJ19CS633	Storage Area Networks	MVJ19CS643	Green Computing	MVJ19CS733	Parallel and Distributed Systems
MVJ19CS634	Social Network Analysis	MVJ19CS644	User Interface Design	MVJ19CS734	Natural Language Processing

Professional Elective – V**Open Elective – II:**

Course Code: PEC	Elective Course Category: Professional Elective Course - V	Course Code: OEC	Elective Course Category: Open Elective Course – II
MVJ19CS741	Deep Learning	MVJ19CS751	Python Programming
MVJ19CS742	Data Visualization Techniques	MVJ19CS752	Cyber Forensics and IPR
MVJ19CS743	Human Computer Interaction	MVJ19CS753	Mobile application development
MVJ19CS744	Blockchain Technology	MVJ19CS754	Machine Learning and its Applications