

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

Department of Information Science & Engineering

III SEMESTER B.E. (6 Theory, 2 Labs, 1 Kannada/CPH, 1 MATDIP, 1 AICTE Activity)

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	MVJ19MIS31	Discrete Math & Probability Theory	Mathematics	3	0	0	3	50	50	100	3
2	PCC	MVJ19IS32	Data Structure	ISE Dept	4	0	0	3	50	50	100	4
3	PCC	MVJ19IS33	Analog & Digital Electronics	ISE/ECE Dept	3	0	0	3	50	50	100	3
4	PCC	MVJ19IS34	Data Communication	ISE Dept	3	0	0	3	50	50	100	3
5	PCC	MVJ19IS35	Computer Organization & Architecture	ISE Dept	3	0	0	3	50	50	100	3
6	PCC	MVJ19IS36	Software Engineering	ISE Dept	3	0	0	3	50	50	100	3
7	PCC	MVJ19ISL37	Data Structure Lab	ISE Dept	0	0	4	3	50	50	100	2
8	PCC	MVJ19ISL38	Analog & Digital Electronics Lab	ISE/ECE Dept	0	0	4	3	50	50	100	2
9	HSMC	MVJ19SK/BK39	Samskruthika Kannada/Balake Kannada	Humanities	1	0	0	3	50	50	100	1
		MVJ19CPH39	CPH					3	50	50		
10	NCMC	MVJ19MISDIP301	Additional Mathematics-1	Mathematics				3	50	50	100	-
11	NCMC	AICTE Activity for 80-90 hours (20 points)		-	-	-	-	-	-	-	-	-
Total								30	500	500	1000	24

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

IV SEMESTER B.E. (6 Theory, 2 Labs, 1 Kannada/CPH, 1 MATDIP, 1 AICTE Activity)

S No	Course		Course Title	Teaching Department	Teaching hours/week			Examination				Credits
	Type	Code			Theory Lect	Tutorial/Practical/Dra	Duration in Hours	CIE Marks	SEE Marks	Total marks		
											L	
1	BSC	MVJ19MIS41	Numerical Methods, Operations Research & Statistics	Mathematics	3	0	0	3	50	50	100	3
2	PCC	MVJ19IS42	Design & Analysis of Algorithm	ISE Dept	4	0	0	3	50	50	100	4
3	PCC	MVJ19IS43	Microcontroller & Embedded Systems	ISE Dept	3	0	0	3	50	50	100	3
4	PCC	MVJ19IS44	Object Oriented Programming Concepts	ISE Dept	3	0	0	3	50	50	100	3
5	PCC	MVJ19IS45	Operating System	ISE Dept	3	0	0	3	50	50	100	3
6	PCC	MVJ19IS46	Theory of Computation	ISE Dept	3	0	0	3	50	50	100	3
7	PCC	MVJ19ISL47	Design & Analysis of Algorithm Lab	ISE Dept	0	0	4	3	50	50	100	2
8	PCC	MVJ19ISL48	Microcontroller & Embedded Systems Lab	ISE/ECE Dept	0	0	4	3	50	50	100	2
9	HSMC	MVJ19SK/BK49	Samskruthika Kannada/Balake Kannada	Humanities	1	0	0	3	50	50	100	1
		MVJ19CPH49	CPH					3	50	50		
10	NCMC	MVJ19MISDIP401	Additional Mathematics-2	Mathematics				3	50	50	100	-
11	NCMC	AICTE Activity for 80-90 hours (20 points)		-	-	-	-	-	-	-	-	-
Total								30	500	500	1000	24

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

V SEMESTER B.E. (5 Theory, 3 Labs, 1 Environmental study, 1 AICTE Activity)

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	HSMC	MVJ19TEM51	Technical Management & Entrepreneurship	ISE Dept	3	0	0	3	50	50	100	3
2	PCC	MVJ19IS52	Computer Network	ISE Dept	4	0	0	3	50	50	100	4
3	PCC	MVJ19IS53	Python Programming	ISE Dept	4	0	0	3	50	50	100	4
4	PCC	MVJ19IS54	Database Management System	ISE Dept	3	0	0	3	50	50	100	3
5	PE	MVJ19IS55X	Professional Elective-I	ISE Dept	3	0	0	3	50	50	100	3
6	PCC	MVJ19ISL56	Computer Network Lab	ISE Dept	0	0	4	3	50	50	100	2
7	PCC	MVJ19ISL57	Operating System & Shell Programming Lab	ISE Dept	0	0	4	3	50	50	100	2
8	PCC	MVJ19ISL58	Database Management System Lab	ISE Dept	0	0	4	3	50	50	100	2
9	HSMC	MVJ19ENV59	Environmental Studies	Humanities	1	0	0	3	50	50	100	1
10	NCMC	AICTE Activity for 80-90 hours (20 points)		-	-	-	-	-	-	-	-	-
Total								27	450	450	1000	24

Note: PCC: Professional Core Course , PE: Professional Elective, HSMC: Humanity and Social Science, NCMC: Non-credit mandatory course

Course Code	Professional Elective-I
MVJ19IS551	Advanced Java & J2EE
MVJ19IS552	System Software
MVJ19IS553	Unix Shell Programming
MVJ19IS554	Information Coding Techniques

VI SEMESTER B.E. (5 Theory, 2 Labs, 1 Mini Project, 1 AICTE Activity)

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	MVJ19IS61	Artificial Intelligence	ISE Dept	4	0	0	3	50	50	100	4
2	PCC	MVJ19IS62	IoT	ISE Dept	4	0	0	3	50	50	100	4
3	PE	MVJ19IS63X	Professional Elective-II	ISE Dept	3	0	0	3	50	50	100	3
4	PE	MVJ19IS64X	Professional Elective-III	ISE Dept	3	0	0	3	50	50	100	3
5	OE	MVJ19IS65X	Open Elective-I	ISE Dept	3	0	0	3	50	50	100	3
6	PCC	MVJ19ISL66	Artificial Intelligence Lab	ISE Dept	0	0	4	3	50	50	100	2
7	PCC	MVJ19ISL67	IoT Lab	ISE Dept	0	0	4	3	50	50	100	2
8	Proj	MVJ19ISP68	Mini-Project/product development	ISE Dept	-	-	-	3	50	50	100	3
9	NCCMC	AICTE Activity for 80-90 hours (20 points)		-	-	-	-	-	-	-	-	-
Total								24	400	400	800	24
Note: PCC: Professional Core Course , PE: Professional Elective, OE: Open Elective, Proj: Project Work, NCCMC: Non-credit mandatory course												

Course Code	Professional Elective-II	Course Code	Professional Elective-III	Course Code	Open Elective-I
MVJ19IS631	Data Mining & Data Warehouse	MVJ19IS641	Unix System Programming	MVJ19IS651	Wireless Sensor & Adhoc Network
MVJ19IS632	Web Technology	MVJ19IS642	Virtual Reality	MVJ19IS652	TCP/IP Protocol Suit
MVJ19IS633	Information Storage Management	MVJ19IS643	Cryptography and Information Security	MVJ19IS653	Programming Language Principles
MVJ19IS634	Compiler Design	MVJ19IS644	Blockchain Technology	MVJ19IS654	Free & Open Source Software

VII SEMESTER B.E. (5 Theory, 2 Labs, Project Phase-I, 1 AICTE Activity)

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	MVJ19IS71	Machine Learning	ISE Dept	4	0	0	3	50	50	100	4
2	PCC	MVJ19IS72	Bigdata & Hadoop	ISE Dept	4	0	0	3	50	50	100	4
3	PE	MVJ19IS73X	Professional Elective-IV	ISE Dept	3	0	0	3	50	50	100	3
4	PE	MVJ19IS74X	Professional Elective-V	ISE Dept	3	0	0	3	50	50	100	3
5	OE	MVJ19IS75X	Open Elective-II	ISE Dept	3	0	0	3	50	50	100	3
6	PCC	MVJ19ISL76	Machine Learning Lab	ISE Dept	0	0	4	3	50	50	100	2
7	PCC	MVJ19ISL77	Bigdata & Hadoop Lab	ISE Dept	0	0	4	3	50	50	100	2
8	Proj	MVJ19ISP78	Project Phase-1	ISE Dept	-	-	-	-	50	-	50	2
9	NCMC	AICTE Activity for 80-90 hours (20 points)			-	-	-	-	-	-	-	-
Total								21	400	350	750	23

Note: PCC: Professional Core Course , PE: Professional Elective, OE: Open Elective, Proj: Project Work , NCMC: Non-credit mandatory course

Course Code	Professional Elective-IV	Course Code	Professional Elective-V	Course Code	Open Elective-II
MVJ19IS731	Data Science using R	MVJ19IS741	Unified Object Oriented Modeling & Design	MVJ19IS751	Cloud Computing
MVJ19IS732	Deep Learning	MVJ19IS742	Information Retrieval & Visualization	MVJ19IS752	Mobile Computing
MVJ19IS733	Storage Area Network	MVJ19IS743	Software Testing	MVJ19IS753	Pattern Recognition
MVJ19IS734	System Modeling & Simulation	MVJ19IS744	Cyber Security, Law & Ethics	MVJ19IS754	Ethical Hacking

VIII SEMESTER B.E. (Project Phase-II, Internship, 1 Technical Seminar, 1 Certification course, 1 AICTE Activity)

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	Proj	MVJ19ISP83	Project Phase-2	ISE Dept	-	-	-	3	50	50	100	10
2	Int	MVJ19ISI84	Internship	ISE Dept	-	-	-	3	50	50	100	3
3	Sem	MVJ19ISS85	Seminar	ISE Dept	-	-	-	3	50	50	100	1
4	CRT	MVJ19ISC86	Certification	Industry/Institute	-	-	-	-	-	-	-	2
5	NCMC	AICTE Activity for 80-90 hours (20 points)			-	-	-	-	-	-	-	-
Total								15	250	250	500	16

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)
 NCMC: Non-credit mandatory course