B.Tech. SCHEME OF EXAMINATION 2022-23

Scheme of Teaching & Examination of Bachelor of Engineering III Semester B.Tech. (Artificial Intelligence& Machine Learning)

Sr. No.	Course Code	Category	Course Name	Hours/ Week			Credits	Maximum Marks				Total	Minimum Passing Marks	
				L	T	P		Theory		Practical				
								Internal	University	Internal	University		Theory	Practical
1	BTAI&ML301T	Basic Science Course	Discrete Mathematics and Graph Theory	3	1	0	4	30	70	-	-	100	45	
2	BTAI&ML302T	Professional core courses	Operating Systems	3	1	0	4	30	70	-	-	100	45	
3	BTAI&ML303T	Professional core courses	Computer Architecture & Organization	3		0	3	30	70	-	-	100	45	
4	BTAI&ML304T	Professional core courses	Data Structures	3	1	0	4	30	70	-	-	100	45	
5	BTAI&ML304P	Professional core courses	Data Structure Lab	0	0	2	1	-	-	25	25	50		25
6	BTAI&ML305T	Professional core courses	Digital Circuits & Microprocessor	3	0	0	3	30	70			100	45	
7	BTAI&ML305P	Professional core courses	Digital Circuits & Microprocessor Lab	0	0	2	1	-	-	25	25	50		25
8	BTAI&ML306P	Professional core courses	Professional Skills I (Core Python)	0	0	2	1			25	25	50		25
9	BTAI&ML307T	HSMC	Universal Human Values	2	0	0	2	15	35			50	23	
10	BTAI&ML308T	Environmental Science Courses	Environmental Science	2	0	0	Audit Course	College assessment in grades O, A,B,C						
		Total		19	3	6	23	165	385	75	75	700		

Scheme of Teaching & Examination of Bachelor of Engineering IV Semester B.Tech. (Artificial Intelligence & Machine Learning)

Sr. No.	Course Code	Category	Course Name	Hours/Week			Credits	Maximum Marks				Total	Minimum Passing Marks	
								Theory		Practical				
				L	T	P		Internal	University	Internal	University		Theory	Practical
1	BTAI&ML 401T	Basic Science Course	Mathematical Foundation for AI&ML	3	0	0	3	30	70			100		
2	BTAI&ML 402T	Professional core courses	Introduction to AI	3	0	0	3	30	70			100	45	
3	BTAI&ML 403T	Professional core courses	Database Management System	3	0	0	3	30	70	-	-	100	45	
4	BTAI&ML 403P	Professional core courses	Database Management System Lab	0	0	2	1					50		25
5	BTAI&ML 404T	Professional core courses	Theory of Computation	3	1	0	4	30	70	-	-	100	45	
6	BTAI&ML 405T	Professional core courses	Object Oriented Programming with JAVA	3	0	0	3	30	70	-	-	100	45	
7	BTAI&ML 405P	Professional core courses	Object Oriented Programming with JAVA Lab	0	0	2	1	-	-	25	25	50		25
8	BTAI&ML 406T	Professional core courses	Micro controller and Embedded System	3	1	0	4	30	70	-	-	100	45	
9	BTAI&ML 406P	Professional core courses	Micro controller and Embedded System Lab	0	0	2	1	-	-	25	25	50	-	25
10	BTAI&ML 407P		Internship	0	0	2	1			50	--	50		25
	Total			18	2	8	24	180	420			800		

Scheme of Teaching & Examination of Bachelor of Engineering V Semester B.Tech. (Artificial Intelligence& Machine Learning)

Sr. No.	Course Code	Category	Course Name	Hours /Week			Credits	Maximum Marks				Total	Minimum Passing Marks	
				L	T	P		Theory		Practical				
								Internal	University	Internal	University		Theory	Practical
1	BTAI&ML501T	Professional core courses	Computer Communication Networks	3	0	0	3	30	70			100	45	
2	BTAI&ML502T	Professional core courses	Data Analytics & Machine Learning	3	0	0	3	30	70	-	-	100	45	
3	BTAI&ML502P	Professional core courses	Data Analytics & Machine Learning Lab	0	0	2	1			25	25	50		25
4	BTAI&ML503T	Professional core courses	Design and Analysis of Algorithms	3	0	0	3	30	70	-	-	100	45	
5	BTAI&ML503P	Professional core courses	Design and Analysis of Algorithms Lab		0	2	1			25	25	50		25
6	BTAI&ML504T	Professional core courses	Internet of Things & Cloud Computing	3	0	0	3	30	70	-	-	100	45	
7	BTAI&ML504P	Professional core courses	Internet of Things & Cloud Computing	0	0	2	1			25	25	50		25
8	BTAI&ML505T	Professional Elective	Elective-1	3	0	0	3	30	70			100	45	
9	BTAI&ML506T	HSMC	Elective Technical Communication	2	0	0	2	15	35			50	23	
Total				17	0	6	20	165	385	75	75	700		

Elective-1:

ARM Processors and its Essentials , Distributed Computing , Robotics, Web and Social Media Analytics

Scheme of Teaching & Examination of Bachelor of Engineering VI Semester B.Tech. (Artificial Intelligence& Machine Learning)

Sr. No.	Course Code	Category	Course Name	Hours/Week			Credits	Maximum Marks				Total	Minimum Passing Marks	
				L	T	P		Theory		Practical				
								Internal	University	Internal	University		Theory	Practical
1	BTAI&ML601T	Professional core courses	Language Processor	3	0	0	3	30	70	-	-	100	45	
2	BTAI&ML601P	Professional core courses	Language Processor Lab	0	0	2	1			25	25	50		25
3	BTAI&ML602T	Professional core courses	Introduction to Cryptography and Blockchain	3	0	0	3	30	70	-	-	100	45	
4	BTAI&ML602P	Professional core courses	Introduction to Cryptography and Blockchain Lab	0	0	2	1			25	25	50		
5	BTAI&ML603T	Professional core courses	Digital system Design using Verilog	3	0	0	3	30	70			100	45	
6	BTAI&ML603P	Professional core courses	Digital system Design using Verilog Lab	0	0	2	1			25	25	50		25
7	BTAI&ML604T	Open Elective courses	Open Elective -1	3	0	0	3	30	70			100	45	
8	BTAI&ML605T	Professional Elective	Elective 2	3	0	0	3	30	70			100	45	
9	BTAI&ML606P	Professional core courses	Mini Project	0	0	6	3			25	25	50		25
10	BTAI&ML607T	HSMC	Intellectual Property Right	2	0	0	Audit	College assessment in grades O, A,B,C						
Total				17	0	12	21	150	350	100	100	700		

Elective-2

Data Visualization, Intelligent Sensor and instrumentation, Human Computer Interface , Software Engineering

Open Elective-1

Bioinformatics , Bioinspired Computing

Scheme of Teaching & Examination of Bachelor of Engineering VII Semester B.Tech. (Artificial Intelligence& Machine Learning)

Sr. No.	Course Code	Category	CourseName	Hours/Week			Credits	Maximum Marks				Total	Minimum Passing Marks	
								Theory		Practical				
				L	T	P		Internal	University	Internal	University		Theory	Practical
1	BTAI&ML701T	Professional core courses	Deep Learning	3	0	0	3	30	70	-	-	100	45	
2	BTAI&ML701P	Professional core courses	Deep Learning Lab	0	0	2	1			25	25	50		25
3	BTAI&ML702T	Professional core courses	Digital Signal and Image Processing	3	0	0	3	30	70	-	-	100	45	
4	BTAI&ML702P	Professional core courses	Digital Signal and Image Processing Lab	0	0	2	1			25	25	50		25
5	BTAI&ML703T	Open Elective courses	Open Elective -2	3	0	0	3	30	70			100	45	
6	BTAI&ML704T	Professional Elective courses	Elective 3	3	0	0	3	30	70			100	45	
7	BTAI&ML705P		Project Phase -1 /Internship	0	0	6	3			50	50	100		50
	Total			12	0	10	17	120	280	100	100	600		

Elective -3: AI Knowledge Representation and Reasoning, Distributed and Object Oriented Database, Switching Theory , Biomedical Instrumentation.

Open Elective-2: Congnitive Systems and Networks, Non-Conventional Energy Sources, Energy Harvesting System

Sr. No.	Course Code	Category	Course Name	Hours/Week			Credits	Maximum Marks				Total	Minimum Passing Marks	
								Theory		Practical				
				L	T	P		Internal	University	Internal	University		Theory	Practical
1	BTAI&ML 801T	Professionalcore courses	Elective 4	3	0	0	3	30	70	-	-	100	45	
2	BTAI&ML 802T	Professionalcore courses	Elective 5	3	0	0	3	30	70	-	-	100	45	
3	BTAI&ML 803P		Project Phase 2 / Internship		0	12	8	0	0	100	100	200		100
Total				6	0	12	14	60	140	100	100	400		

Elective4: Augumented and Virtual Reality, Mobile Application Development, Big Data and NoSQL, Stastical Methods

Elective 5 : Salesforce , Optical Circuits and Fibres, Business Intelligence, Cyber crimes and Digital Forensics, Natural Language Engineering

Category wise credit distribution:

Sr. No.	Semester	Category							Total
		BSC	ESC	HSMC	PCC	PEC	OEC	PROJ	
1	I	9	7	3	-	-	-	-	19
2	II	9	13	-	-	-	-	-	22
3	III	3	2	2	13	-	-	-	20
4	IV	-	-	-	22	-	-	-	22
5	V	-	-	2	14	3		-	19
6	VI	-	-	2	12	4	4	1	23
7	VII	-	-	2	8	4	4	3	21
8	VIII	-	-	-	-	6		8	14
Total		21	22	11	69	17	8	12	160

Open Elective /Professional Elective

Computational Biology
Industry 4.0
Game Theory
Human Computer Interface
Buisness Intelligence
Bioinformatics
Virtual /AugmentedReality
Congnitive Systems
Fuzzy logic and Neural Network

Distributed Computing
R Programming
Cognitive Systems
Soft Computing
Current trends and technologies in AL&ML
optimization Methodologies
Natural Language Processing