BIRLA INS	TITUTE	OF TECH	NOLO	GY- MESRA, RANCHI					
				o be effective from acade	emic session	2021-22			
Based on									
Recomme	ended s	scheme of	study	for M.Tech Computer Sci	ence & Engir	neering			
							T		
SEMEST	Cou	Catego	Cou	Courses	Mode of delivery & credits				
ER /	rse	ry	rse		L-Lecture;	p_	al		
Session	Lev	of	Cod		Practicals		Cre		
of Study	el	Course	е				dits		
(Recome			_					C- Cre	
nded)									
								dits	
					L	Т	Р	С	
					(Periods	(Periods	(Periods		
					/week)	/week)	/week)		
	THEC	DRY		1		·	·		
FIRST /	Fift	Progra	CS5	Mathematical	3	0	0	3	
Monsoo	h	mme	01	Foundations of					
n		Core		Computer Science					
		(PC)	CS5	Advanced Data	3	0	0	3	
			02	Structures	-	-			
			CS5	Distributed Systems	3	0	0	3	
			04	,					
				PE I	3	0	0	3	
		Progra		PE III	3	0	0	3	
		mme							
		Electiv							
		e (PE)							
		LABORATORIES							
	Fift	Progra	CS5	Advanced Data	0	0	4	2	
	h	mme	03	Structures Lab					
		Core	**	PE LAB 1	0	0	4	2	
		(PC)							
		TOTAL						19	
	1	T	1	Γ	- 1	T	1		
SECOND	Fift	Progra	CS5	Advanced Computer	3	0	0	3	
/	h	mme	09	Algorithm					
Spring		Core	CS5	Advanced Database	3	0	0	3	
		(PC)	11	Management System					
			CS5	Artificial Intelligence	3	0	0	3	
			12						
			CS6	Graph Theory	3	0	0	3	
			01						
				PE II	3	0	0	3	
		LABORA	TORIE	S					
	Fift	Progra	CS5	Advanced Computer	0	0	4	2	
	h	mme	10	Algorithm Lab					
	•	•	<u>.</u>			•	•	•	

		Core (PC)	**	PE LAB 2	0	0	4	2
		TOTAL						19
	r	1			1	1	1	
THIRD /	Sixt	Progra	CS6	Thesis (Part I)				8
Monsoo	h	mme	00					
n		Core (PC)						
		Open		OEI/MOOC				3
		Electiv e (OE)		OE II / MOOC				3
		TOTAL	•					14
FOURTH / Spring	Sixt h	Progra mme Core (PC)	CS6 50	Thesis (Part II)				16
		TOTAL						16
GRAND TO	OTAL F	OR M.TEC	H PRO	GRAMME (38 + 30)				68

SEMESTE R / Session of Study	Cour se Leve I		Cour se Cod e	Courses	Mode of de	elivery & cred	its	Tota I
(Recomen ded)	_				L-Lecture; T-Tutorial;P-Practicals			Cred its
								C- Cred its
]				L	Т	Р	С
					(Periods/ week)	(Periods/ week)	(Periods/ week)	
FIRST /	5		CS50	Machine	3	0	0	3
			6	Learning				
Monsoon	5		IT50	Wireless Sensor	3	0	0	3
			3	Networks				
	5		CS50 7	Computability and Complexity	3	0	0	3
				Theory				
		LABORA	ATORIES	5				
	5	PE	IT50	Matlab	0	0	4	2
		LAB 1	9	Programming				
	5		IT51	Java	0	0	4	2
			0	Programming				
			IT60	Python	0	0	4	2
			3	Programming				
	5		IT51	R Programming	0	0	4	2
			1					

	5	PE 2	IT51	Internet of	3	0	0	3
SECOND/	5	PEZ	8	Things(IoT)	3	U	U	3
Spring	5		IT51	Data Mining and	3	0	0	3
		_	6	Data Analysis				
	5		CS51	0	3	0	0	3
			7	Analysis of				
				Parallel				
				Algorithm				
		LABOR	1		T	•	•	
	5	PE	IT51	Data Mining and	0	0	4	2
		LAB 2	7	Data Analysis Lab				_
	5		CS51	Parallel	0	0	4	2
		_	8	Computing Lab				
	5		IT51	Internet of	0	0	4	2
			9	Things(IoT) Lab				
THIRD /	6	PE 3	CS60	High	3	0	0	3
			5	Performance				
				Computing				
		_		Architecture				_
Monsoon	6		IT50	Cloud Computing	3	0	0	3
		_	8					
	5		IT51	Advanced	3	0	0	3
			6	Operating				
			-					
				System				
Open Elect	ive List	for M. Te		System				
Open Elect	ive List	1	ch Prog	System	Mode of de	elivery & cred	its	Tota
SEMESTE	ive List	Categ	ch Prog	System	Mode of de	elivery & cred	its	Tota
SEMESTE R /	ive List	1	ch Prog Cour se	System	Mode of de	elivery & cred	its	Tota
SEMESTE R / Session of	ive List	Categ	ch Prog	System	Mode of de	livery & cred	its	Tota
SEMESTE R / Session of Study	ive List	Categ	ch Prog Cour se Cod	System				I
SEMESTE R / Session of Study (Recomen	ive List	Categ ory	ch Prog Cour se Cod	System		elivery & cred		I
SEMESTE R / Session of Study (Recomen	ive List	Categ ory of	ch Prog Cour se Cod	System				l Cree
SEMESTE R / Session of Study (Recomen	ive List	Categ ory of Cours	ch Prog Cour se Cod	System				l Cree
SEMESTE R / Session of Study (Recomen	ive List	Categ ory of Cours	ch Prog Cour se Cod	System				l Crea its <i>C</i> -
SEMESTE R / Session of Study (Recomen	ive List	Categ ory of Cours	ch Prog Cour se Cod	System				l Crea its <i>C</i> -
SEMESTE R /	ive List	Categ ory of Cours	ch Prog Cour se Cod	System				I Creatits C- Creat
SEMESTE R / Session of Study (Recomen	ive List	Categ ory of Cours	ch Prog Cour se Cod	System	L-Lecture; 1	-Tutorial;P-P	racticals	I Creatits C- Creatits
SEMESTE R / Session of Study (Recomen	ive List	Categ ory of Cours	ch Prog Cour se Cod	System	L-Lecture; 7	T-Tutorial;P-P	racticals P	l Crea its C- Crea its
SEMESTE R / Session of Study (Recomen ded)	ive List	Categ ory of Cours e	ch Prog Cour se Cod e	System	L-Lecture; T L (Periods/ week)	T-Tutorial;P-P T (Periods/ week)	P (Periods/ week)	l Crea its <i>C-</i> <i>Crea</i> <i>its</i> C
SEMESTE R / Session of Study (Recomen ded)	ive List	Categ ory of Cours	ch Prog Cour se Cod	System	L-Lecture; T L (Periods/	T-Tutorial;P-P	P (Periods/	I Creatits C- Creatits
SEMESTE R / Session of Study (Recomen	ive List	Categ ory of Cours e	ch Prog Cour se Cod e Cod	System	L-Lecture; T L (Periods/ week)	T-Tutorial;P-P T (Periods/ week)	P (Periods/ week)	C- Crec its C

				Application				
			IT51 8	Internet of Things	3	0	0	3
			IT57 0	Basics of Python Programming	0	1	4	3
			IT52 2	Cyber Security and Digital Forensics	3	0	0	3
	•							
SECOND/	5	OE 2	IT52 3	Biometric Security	3	0	0	3
Spring	5		IT50 4	Applied Cryptography	3	0	0	3
	5		IT52 4	Image Processing Techniques	3	0	0	3
	5		CS52 4	Soft Computing	3	0	0	3
			IT57 1	Introduction to R Programming	0	1	4	3
	5		CS51 2	Artificial Intelligence	3	0	0	3
	5		IT51 6	Data Mining and Data Analysis	3	0	0	3