Delhi Technological University
Computer Science and Engineering Department
Schemes of Teaching and Examination
B.Tech. (CSE) Program
(Effective from session 2023-24)

		B. Tech. Comp	uter Scie	nce	and	Eng	ginee	ering								
		I Ye	ar: First S	eme	ester											
	Teaching Scheme					Contact Hours/Week			kam tion (h)	Relative Weights (%)						
S. No.	Subject Code	Course Title	Subject Area	Credit	Г	Т	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE		
1	AM101	Mathematics - I	BSC	4	3	1	0	3	0	25	-	25	50	-		
2	CO101	Programming Fundamentals	ESC	4	3	0	2	3	0	15	25	20	40	-		
3	EC101	Basic Electronics & Communication Engineering	ESC	4	3	0	2	3	0	15	25	20	40	-		
4	ME105	Computer Aided Engineering Graphics-II	ESC	4	3	0	2	3	0	15	25	20	40	-		
5	CS103	Web Designing	SEC	2	1	0	2	0	3	-	50	-	-	50		
6	AEC/VAC	AEC/VAC	AEC/VAC	2	2/1/0	0	0/2/4	3/3/0	0/2/3	25/15/ 0	0/25 /50	25/2 0/0	50/40/0	0/0/50		
		Total		20												
			I Year: Se	con	d Sen	neste	r									
1	AM102	Mathematics-II	BSC	4	3	1	0	3	0	25	-	25	50	-		
2	AP102	Physics	BSC	4	3	0	2	3	0	15	25	20	40	-		
3	CS102	Discrete Structure	ESC	4	3	1	0	3	0	25	-	25	50	-		
4	CS104	Data Structures	DCC	4	3	0	2	3	0	15	25	20	40	-		
5	CS106	Basics of Machine Learning & Application	SEC	2	1	0	2	0	3	-	50	-	-	50		
6	AEC/VAC	AEC/VAC	AEC/VAC		2/1/0	0	0/2/4	3/3/0	0/2/3	25/15/ 0	0/25 /50	25/20/ 0	50/40/0	0/0/50		
	Total 2															

B. Tech. Computer Science and Engineering **II Year: Third Semester Contact** Exam **Teaching Scheme Relative Weights (%)** Hours/Week **Duration (h)** Theory Practical Subject Subject Course Credit Š. CWS MTE Code **PRS** PRE Area Ś ESC CS201 Digital Logic Design 3 25 25 4 0 0 50 CS203 **Object Oriented Programming Concepts** DCC 3 0 2 3 15 25 20 40 2 4 0 3 CS205 Design and Analysis of Algorithms DCC 3 3 25 25 50 4 0 0 CS207 Operating Systems Design DCC 25 40 4 3 0 2 3 15 4 0 20 5 3 3 25 25 50 CS209 Software Engineering DCC 4 0 1 0 25/ 0/25 25/20 AEC/VAC AEC/VAC AEC/VAC 2 2/1/0 3/3/0 0/2/3 50/40/0 0/0/50 0 0/2/415/0 /50 Community Engagement Course 2 7 MS299 Mandatory 24 **Total II Year: Fourth Semester Probability and Statistics** ESC CS202 25 25 1 4 3 0 3 0 50 1 CS204 DCC 3 3 25 25 50 Theory of Computation 4 0 0 Computer System Architecture and 3 CS206 DCC 4 3 0 3 0 25 25 50 Organization Computer Networks 25 20 4 CS208 DCC 4 3 0 2 3 0 15 40 25 DCC 3 15 20 CS210 **Database Management Systems** 4 3 0 2 0 40 0/25 25/20 25/ 50/40/0 0/0/50 AEC/VAC AEC/VAC AEC/VAC 2 2/1/0 0 0/2/43/3/0 0/2/3 15/0 /50 **Total** 22

		B. Tech. Comp	uter Scie	nce	and	Eng	inee	ring							
	III Year: Fifth Semester														
	Teaching Scheme					Contact Hours/Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course	Subject Area	Credit	Т	T	d	Theory	Practical	CWS	PRS	MTE	ETE	PRE	
1	CS301	Compiler Design	DCC	4	3	0	2	3	0	15	25	20	40	-	
2	CS303	Machine Learning	DCC	4	3	0	2	3	0	15	25	20	40	-	
3	CS305	Information and Network Security	DCC	4	3	0	2	3	0	15	25	20	40	-	
4	HU301	Engineering Economics	SEC	3	3	1	0	3	0	25	0	25	50	-	
5	CS3xx	Department Elective Course -1	DEC	4	3	0/1	2/0	3	0	15/ 25	25/	20/25	40/50	-	
6		Generic Elective Course-1	GEC	4	3	0/1	2/0	3	0	15/ 25	25/	20/25	40/50	1	
		Total		23											
			III Year: S	ixth S	Seme	ster									
1	CS302	Parallel Computer Architecture	DCC	4	3	1	0	3	0	25	-	25	50	-	
2	CS304	Data Warehousing and Data Mining	DCC	4	3	0	2	3	0	15	25	20	40	-	
3		Fundamentals of Management	SEC	3										-	
4	CS3xx	Department Elective Course -2	DEC	4	3	0/1	2/0	3	0	15/ 25	25/	20/25	40/50	1	
5	CS3xx	Department Elective Course -3	DEC	4	3	0/1	2/0	3	0	15/ 25	25/	20/25	40/50	-	
6		Generic Elective Course-2	GEC	4	3	0/1	2/0	3	0	15/ 25	25/	20/25	40/50	-	
		Total	•	23											

B. Tech. Computer Science and Engineering IV Year: Seventh Semester

Teaching Scheme						Contact Hours/Week				cam cion (h)	Relative Weights (%)				
No.	ject de	rse	ject	ea	edit	,	.	•	eory	tical	WS	RS	TE	re	

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S. No.	Subject Code	Course Title	Subject Area	Credit	Т	${f L}$	d	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CS401	B.Tech Project-I	DCC	4	-	-	-	-	-	-	-	-	•	-
2	CS403	Internship	DCC	2	ı	-	-	ı	ı	ı	ı	1	1	-
5	CS4xx	Department Elective Course -4	DEC	4	3	0/1	2/0	3	0	15/ 25	15/	20/25	40/50	1
6	CS4xx	Department Elective Course -5	DEC	4	3	0/1	2/0	3	0	15/ 25	15/	20/25	40/50	1
7		Generic Elective Course-3	GEC	4	3	0/1	2/0	3	0	15/ 25	15/	20/25	40/50	1
8		Indian Knowledge System	VAC	Non- Credit										
		Total		18										
			IV Year:	Eighth	Seme	ester								
1	CS402	B.Tech Project-II	DCC	8	-	-	-	-	-	-	-	-	_	-
2	CS4xx	Department Elective Course -6	DEC	4	3	0/1	2/0	3	0	15/ 25	25/	20/25	40/50	1
3		Generic Elective Course-4	GEC	4										-
		Total		16										
	Cumulative Total													

B. Tech. Computer Science and Engineering

III Year: Fifth Semester Department Elective Course-1

	Teaching Scheme					Contact Hours/Week			Exam Duration (h)		Relative Weights (%)				
S. No.	Subject Code	Course	Subject Area	Credit	L	Т	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE	
1	CS307	Modelling and Simulation	DEC	4	3	1	0	3	0	25	-	25	50	-	
2	CS309	Distributed System	DEC	4	3	1	0	3	0	25	ı	25	50	-	
3	CS311	Information Theory and coding	DEC	4	3	1	0	3	0	25	ı	25	50	-	
4	CS313	Quantum Computing	DEC	4	3	1	0	3	0	25	ı	25	50	1	
5	CS315	Advanced Data Structures	DEC	4	3	1	0	3	0	25	ı	25	50	-	
6	CS317	Microprocessors and Interfacing	DEC	4	3	1	0	3	0	25	ı	25	50	-	
7	CS319	Computer Graphics	DEC	4	3	1	0	3	0	25	ı	25	50	-	
III Year: Sixth Semester															
		D	epartment l	Electi	ve Co	ourse	2,3								
1	CS306	Optimization Techniques	DEC	4	3	1	0	3	0	25	-	25	50	-	
2	CS308	Soft Computing	DEC	4	3	0	2	3	0	15	25	20	40	-	
3	CS310	Enterprise Java programming	DEC	4	3	0	2	3	0	15	25	20	40	-	
4	CS312	Embedded Systems	DEC	4	3	1	0	3	0	25	-	25	50	-	
5	CS314	Data Compression	DEC	4	3	1	0	3	0	25	-	25	50	-	
6	CS316	Parallel Algorithms	DEC	4	3	1	0	3	0	25	-	25	50	-	
7	CS318	Deep Learning	DEC	4	3	0	2	3	0	15	25	20	40	-	
8	CS320	Blockchain and Applications	DEC	4	3	1	0	3	0	25	ı	25	50	-	
9	CS322	Optical Networks	DEC	4	3	1	0	3	0	25	-	25	50	-	
10	CS324	High Speed Networks	DEC	4	3	1	0	3	0	25	ı	25	50	-	
11	CS326	Advanced Database Management Systems	DEC	4	3	1	0	3	0	25	ı	25	50	-	
12	CS328	Multimedia System Design	DEC	4	3	1	0	3	0	25	-	25	50	-	

IV Year: Seventh Semester Department Elective Course-4,5

	Teaching Scheme							Exam Duration (h)		R				
S. No.	Subject Code	Course	Subject Area	Credit	Γ	Т	P	Theory	Practical	CWS	PRS	MTE	ETE	PRE
1	CS405	Real Time System	DEC	4	3	1	0	3	0	25	-	25	50	-
2	CS407	Pattern Recognition	DEC	4	3	1	0	3	0	25	-	25	50	-
3	CS409	Object Oriented Software Engineering	DEC	4	3	1	0	3	0	25	-	25	50	-
4	CS411	Cyber vulnerability and Ethical hacking	DEC	4	3	1	0	3	0	25	ı	25	50	-
5	CS413	Computer Vision	DEC	4	3	1	0	3	0	25	ı	25	50	-
6	CS415	Data Visualization	DEC	4	3	0	2	3	0	15	25	20	40	-
7	CS417	Wireless and Mobile Computing	DEC	4	3	1	0	3	0	25	-	25	50	-
8	CS419	Business Analytics	DEC	4	3	1	0	3	0	25	-	25	50	-
9	CS421	Advance Web Technology	DEC	4	3	0	2	3	0	15	25	20	40	-
10	CS423	Big Data Analytics	DEC	4	3	0	2	3	0	15	25	20	40	-
11	CS425	Cloud Computing	DEC	4	3	1	0	3	0	25	-	25	50	-
12	CS427	Natural Language Processing	DEC	4	3	0	2	3	0	15	25	20	40	-
		1	IV Year: I Department											
1	CS404	High Performance Computing	DEC	4	3	1	0	3	0	25	-	25	50	-
2	CS406	Grid and Cluster Computing	DEC	4	3	1	0	3	0	25	-	25	50	-
3	CS408	Swarm & Evolutionary Computing	DEC	4	3	1	0	3	0	25	ı	25	50	-
4	CS410	Digital Image Processing	DEC	4	3	0	2	3	0	15	25	20	40	-
5	CS412	Intellectual Property Rights	DEC	4	3	1	0	3	0	25	1	25	50	-
6	CS414	Cyber Forensics	DEC	4	3	1	0	3	0	25	-	25	50	-
7	CS416	Semantic Web and Web Mining	DEC	4	3	1	0	3	0	25	-	25	50	-