

**Programme Structure for CBCS (Batch 2023-26)**  
**B.Sc MSCs PROGRAMME STRUCTURE**

<b>FIRST SEMESTER</b>										
Subject Code	Course Type	Course Title	Hours/Week			Credits	Max. Marks		Total Marks	Duration of Exam
			L	T	P		Int	Ext		
ENG-1-EN-22T	CC	English – I	4	1	-	5	40	60	100	3
AR-1-SL-22T/ FR-1-SL-22T/ / HI-1-SL-22T / SK-1-SL-22T / TL-1-SL-22T	CC	Second language	5	-	-	5	40	60	100	3
BCS-1-CS-22T	AEC C	Basic Computer Skills	1	-	2	2	20	30	50	2
DIC-1-MM-22T	DSC	<b>Mathematics-I</b> Differential & Integral Calculus (Theory)	4	-	-	4	40	60	100	3
DSPRV-1-ST-22T	DSC	<b>Statistics-I</b> Descriptive Statistics, Probability and Random Variables (Theory)	4	-	-	4	40	60	100	3
OOP-1-CS-22T	DSC	<b>Computer Science-I:</b> Object Oriented Programming Using C++ (Theory)	4	-	-	4	40	60	100	3
DIC-1-MM-22P	DSC	<b>Mathematics-I</b> Differential & Integral Calculus (Practical)	-	-	3	1	20	30	50	3
DSPRV-1-ST-22P	DSC	<b>Statistics-I</b> Descriptive Statistics, Probability and Random Variables (Practical)	-	-	3	1	20	30	50	3
OOP-1-CS-22P	DSC	<b>Computer Science-I:</b> Object Oriented Programming Using C++ (Practical)	-	-	3	1	20	30	50	3

		Total	22	1	11	27	280	420	700	
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**NOTE:** SEC: Skill Enhancement Course; DSC: Discipline Specific Course; DSE: Discipline Specific Elective; L: Lecture; T: Tutorial; P: Practical; I: Internal Exam E: End Semester Exam; PR: Project Report; VV: Viva-Voce Examination.

SECOND SEMESTER										
Subject Code	Course Type	Course Title	Hour/Week			Credits	Max. Marks		Total Marks	Duration of Exam
			L	T	P		Int	Ext		
ENG-2-EN-22T	CC	English – II	4	1	-	5	40	60	100	3
AR-2-SL-22T/ FR-2-SL-22T/ / HI-2-SL-22T/ SK-2-SL-22T/ / TL-2-SL-22T	CC	Second language	5	-	-	5	40	60	100	3
EVS-2-EN-22T	AEC C	Environmental Studies	1	1	-	2	20	30	50	2
DE-2-MM-22T	DSC	<b>Mathematics-II</b> Differential Equations (Theory)	4	-	-	4	40	60	100	3
PD-2-ST-22T	DSC	<b>Statistics-II</b> Probability Distributions (Theory)	4	-	-	4	40	60	100	3
DS-2-CS-22T	DSC	<b>Computer Science-II</b> Data Structures (Theory)	4	-	-	4	40	60	100	3
DE-2-MM-22P	DSC	<b>Mathematics-II</b> Differential Equations (Practical)	-	-	3	1	20	30	50	2
PD-2-ST-22P	DSC	<b>Statistics-II</b> Probability Distributions (Practical)	-	-	3	1	20	30	50	2
DS-2-CS-22P	DSC	<b>Computer Science-II</b> Data Structures (Practical)	-	-	3	1	20	30	50	2

	*Non CGPA	<b>Co-Curricular</b> Value added Courses	*1	*1	-	*2				
		Extra-Curricular Courses								
		Total	22	2	9	27	280	42 0	700	23
Total No of Credits by the end of First Year : 54										

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<b>THIRD SEMESTER</b>										
Subject Code	Course Type	Course Title	Hours/Week			Credits	Max. Marks		Total Marks	Duration of Exam
			L	T	P		Int	Ext		
ENG-3-EN-22T	CC	English – III	4	1	-	5	40	60	100	3
AR-3-SL-22T / FR-3-SL-22T/ HI-3-SL-22T/ SK-3-SL-22T / TL-3-SL-22T	CC	Second Language	5	-	-	5	40	60	100	3
UHVGS-3-EN-22T / LMS-3-BM-22T	SEC	<b>UGC Specified – SEC</b> 1. Universal Human Values and Gender Sensitization 2. Leadership and Management Skills	1	1	-	2	40	60	100	2
RA-3-MM-22T	DSC	<b>Mathematics-III</b> Real Analysis (Theory)	4	-	-	4	40	60	100	3
SM-3-ST-22T	DSC	<b>Statistics-III</b> Statistical Methods (Theory)	4	-	-	4	40	60	100	3

RDMS-3-CS-22T	DSC	<b>Computer Science-III</b> Relational Database Management System (Theory)	4	-	-	4	40	60	100	3
RA-3-MM-22P	DSC	<b>Mathematics-III</b> Real Analysis (Practical)	-	-	3	1	20	30	50	3
SM-3-ST-22P	DSC	<b>Statistics-III</b> Statistical Methods (Practical)	-	-	3	1	20	30	50	3
RDMS-3-CS-22P	DSC	<b>Computer Science-III</b> Relational Database Management System (Practical)	-	-	3	1	20	30	50	3
		Total	22	2	9	27	300	450	750	
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FOURTH SEMESTER										
Subject Code	Course Type	Course Title	Hours/Week			Credits	Max. Marks		Total Marks	Duration of Exam
			L	T	P		Int	Ext		
ENG-4-EN-22T	CC	English – IV	4	1	-	5	40	60	100	3
AR-4-SL-22T / FR-4-SL-22T / HI-4-SL-22T/ SK-4-SL-22T / TL-4-SL-22T	CC	Second Language	5	-	-	5	40	60	100	3
EE-4-EN-22T / BE-4-EN-22T	SEC	<b>UGC Specified – SEC</b> 1.English for Employability 2.Business English	1	1	-	2	40	60	50	2

ALG-4-MM-22T	DS	<b>Mathematics-IV</b> Algebra (Theory)	4	-	-	4	40	60	100	3
SI-4-ST-22T	DSC	<b>Statistics-IV</b> Statistical Inference (Theory)	4	-	-	4	40	60	100	3
JP-4-CS-22T	DSC	<b>Computer Science-IV</b> Java Programming (Theory)	4	-	-	4	40	60	100	3
ALG-4-MM-22P	DSC	<b>Mathematics-IV</b> Algebra (Practical)	-	-	3	1	20	30	50	3
SI-4-ST-22P	DSC	<b>Statistics-IV</b> Statistical Inference (Practical)	-	-	3	1	20	30	50	3
JP-4-CS-22P	DSC	<b>Computer Science-IV</b> Java Programming Lab (Practical)	-	-	3	1	20	30	50	3
	*Non CGPA	Internships*(with in Sem-V)	*1	*1	-	*2				
		<b>Co-Curricular</b> MOOCS* (with in Sem-III) Extra-Curricular Courses	-	-	30					
		Total	22	2	9	27	300	450	750	

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FIFTH SEMESTER										
Subject Code	Course Type	Course Title	Hours/Week			Credits	Max Marks		Total Marks	Duration of Exam
			L	T	P		Int	Ext		
MM-5-MM-22T LS-5-MM-22T	SEC	<b>Mathematics:</b> 1. Mathematical Modeling 2. Logic & Sets	2	-	-	2	20	30	50	2

OR-5-ST-22 T		<b>Statistics:</b> Operations Research								
CSE-5-CS-22 T		<b>Computer Science:</b> Cyber Security Essentials								
LA-5-MM-2 4T	DSC	<b>Mathematics-V</b> Linear Algebra (Theory)	4	-	-	4	40	60	100	3
	GE-Ge neric	(Interdisciplinary) from other departments	4	-	-	4	40	60	100	3
AS1-5-ST-24 T	DSC	<b>Statistics:</b> 1.Applied Statistics-I (Theory)	4	-	-	4	40	60	100	3
WT-5-CS-22 T PP-5-CS-22T / CNCC-5-CS- 22T	DSE	<b>Computer Science:</b> 1.Web Technologies 2. Programming in Python 3. Computer Networks & Cloud Computing(Theory)	4	-	-	4	40	60	100	3
LA-5-MM-22 P	DSE	<b>Mathematics</b> Linear Algebra using Mathematica (Practical)	-	-	3	1	20	30	50	3
AS1-5-ST-22 P	DSC	<b>Statistics</b> 1.Applied Statistics-I(Practical)	-	-	3	1	20	30	50	3
WT-5-CS-22 P PP-5-CS-22P CNCC-5-CS- 22P	DSE	<b>Computer Science</b> 1.Web Technologies 2. Programming in Python 3. Computer Networks & Cloud Computing(Practical)	-	-	3	1	20	30	50	3
Total			1 8	-	9	21	240	360	600	

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### SIXTH SEMESTER

Subject Code	Course Type	Course Title	Hours/Week			Credits	Max Marks		Total Marks	Duration of Exam
			L	T	P		Int	Ext		

TE-6-MM-2 2T VC-6-MM-2 2T	SEC 4	<b>Mathematics:</b> Theory of Equations Vector Calculus	2	--		2	20	30	50	2
RP-6-ST-22T		<b>Statistics:</b> R-Programming								
GDS-6-CS-2 2T		<b>Computer Science:</b> Google Data Studio								
NA-6-MM-2 2T DM-6-MM-2 2T ASG-6-MM-22T	DSE	<b>Mathematics:</b> 1. Numerical Analysis (Theory) 2. Discrete Mathematics (Theory) 3. Analytical Solid Geometry (Theory)	4	--		4	40	60	100	3
AS2-6-ST-22 T	DSC	<b>Statistics:</b> Applied Statistics-II (Theory)	4	--		4	40	60	100	3
FSWD-6-CS-22T DSP-6-CS-2 2T OS-6-CS-22 T	DSE	<b>Computer Science:</b> 1. Full Stack Web Development 2. Data Science with Python 3. Operating Systems (Theory)	4	--		4	40	60	100	3
NA-6-MM-2 2P DM-6-MM-2 2P ASG-6-MM-22P	DSE	<b>Mathematics:</b> 1. Numerical Analysis (Practical) 2. Discrete Mathematics (Practical) 3. Analytical Solid Geometry (Practical)	-	--	3	1	20	30	50	3
AS2-6-ST-22 P	DSC	<b>Statistics:</b> Applied Statistics-II (Practical)	-	--	3	1	20	30	50	3
FSWD-6-CS-22P DSP-6-CS-2 2P OS-6-CS-22 P	DSE	<b>Computer Science:</b> 1. Full Stack Web Development 2. Data Science Python 3. Operating Systems (Practical)	-	--	3	1	20	30	50	3
BRMMPR-6-MM-22	Project Optional	Basics of Research Methodology for Mathematics Project	4	--	--	4	40	60	100	3
SPR-6-ST-22		Statistics Project								

CPR-6-CS-2 2		Computer Science Project								
		Total	18	--	9	21	240	360	600	

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