Course Structure for CBCS (Batch 2022-25)
B.Sc MSCs PROGRAMME STRUCTURE

FIRST SEMESTER

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	AECC	Basic Computer Skills	1	-	2	2	20	30	50	2
DIC-1-MM-22T	DSC	**Mathematics-I** Differential & Integral Calculus (Theory)	4	-	-	4	40	60	100	3
DSPRV-1-ST-22T	DSC	**Statistics-I** Descriptive Statistics, Probability and Random Variables (Theory)	4	-	-	4	40	60	100	3
OOP-1-CS-22T	DSC	**Computer Science-I:** Object Oriented Programming Using C++ (Theory)	4	-	-	4	40	60	100	3
DIC-1-MM-22P	DSC	**Mathematics-I** Differential & Integral Calculus (Practical)	--	1	2	1	20	30	50	3
DSPRV-1-ST-22P	DSC	**Statistics-I** Descriptive Statistics, Probability and Random Variables (Practical)	--	-	3	1	20	30	50	3
OOP-1-CS-22P	DSC	**Computer Science-I:** Object Oriented Programming Using C++ Computer Science (Practical)	--	-	3	1	20	30	50	3
		Total	22	2	10	27	280	420	700	

SECOND SEMESTER

Subject Code	Course Type	Course Title	Hours /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

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EVS-2-EN-22T	AECC	Environmental Studies	1	1	-	2	20	30	50	2
DE-2-MM-22T	DSC	**Mathematics-II** Differential Equations (Theory)	4	-	-	4	40	60	100	3
PD-2-ST-22T	DSC	**Statistics-II** Probability Distributions (Theory)	4	-	-	4	40	60	100	3
DS-2-CS-22T	DSC	**Computer Science-II** Data Structures (Theory)	4	-	-	4	40	60	100	3
DE-2-MM-22P	DSC	**Mathematics-II** Differential Equations (Practical)	-	1	2	1	20	30	50	3
PD-2-ST-22P	DSC	**Statistics-II** Probability Distributions (Practical)	-	-	3	1	20	30	50	3
DS-2-CS-22P	DSC	**Computer Science-II** Data Structures (Practical)	-	-	3	1	20	30	50	3
	*Non CGPA	**Co-Curricular** Value added Courses/ Extra-Curricular Courses	--							
		Total	22	3	8	27	280	420	700	

Total No of Credits by the end of First Year : 54

Note: CC: Compulsory Course: AECC: Ability Enhancement Compulsory Course; DSC: Discipline Specific Course; T: Theory; P: Practical; I: Internal Exam E: End Semester Exam HI - Hindi; AR - Arabic; SK - Sanskrit; FR - French; TL – Telugu.

THIRD SEMESTER

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-2T/ 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	**UGC Specified – SEC** 1. Universal Human Values and Gender Sensitization 2. Leadership and Management Skills	1	1	-	2	40	60	100	2
RA-3-MM-22T	DSC	**Mathematics-III** Real Analysis (Theory)	4	-	-	4	40	60	100	3
SM-3-ST-22T	DSC	**Statistics-III** Statistical Methods (Theory)	4	-	-	4	40	60	100	3
RD-3-CS-22T	DSC	**Computer Science-III** Relational Database Management System(Theory)	4	-	-	4	40	60	100	3
RA-3-MM-22P	DSC	**Mathematics-III** Real Analysis (Practical)	-	1	2	1	20	30	50	3

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SM-3-ST-22P	DSC	**Statistics-III** Statistical Methods (Practical)	-	-	3	1	20	30	50	3
RD-3-CS-22P	DSC	**Computer Science-III** Relational Database Management System (Practical)	-	-	3	1	20	30	50	3
		Total	22	3	8	27	300	450	750	

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
BE-4-EN-22T/ EE-4-EN-22T	SEC	**UGC Specified – SEC** 1.Business English 2.English for Employability	1	1	-	2	40	60	50	2
ALG-4-MM-22T	DS	**Mathematics-IV** Algebra (Theory)	4	-	-	4	40	60	100	3
SI-4-ST-22T	DSC	**Statistics-IV** Statistical Inference (Theory)	4	-	-	4	40	60	100	3
JP-4-CS-22T	DSC	**Computer Science-IV** Java Programming (Theory)	4	-	-	4	40	60	100	3
ALG-4-MM-22P	DSC	**Mathematics-IV** Algebra (Practical)	-	1	2	1	20	30	50	3
SI-4-ST-22P	DSC	**Statistics-IV** Statistical Inference (Practical)	-	-	3	1	20	30	50	3
JP-4-CS-22P	DSC	**Computer Science-IV** Java Programming Lab (Practical)	-	-	3	1	20	30	50	3
	*Non CGPA	Internships								
		Co-Curricular	--	30						
		MOOCS/ Extra-Curricular Courses	--	30						
		Total	22	3	8	27	300	450	750	

Note: CC: Compulsory Course; AECC: Ability Enhancement Compulsory Course; SEC: Skill Enhancement Course; DSC: Discipline Specific Course; T: Theory; P: Practical; I: Internal Exam E: End Semester Exam HI - Hindi; AR - Arabic; SK - Sanskrit; FR - French; TL – Telugu.

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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		
TE-5-MM-22T/ LS-5-MM-22T	SEC	**Mathematics:** 1. Theory of Equations 2. Logic & Sets	2	-	-	2	20	30	50	2
DCPI-5-ST-22T		**Statistics:** Data collection, Presentation and Interpretation								
HP-5-CS-22T		**Computer Science:** HTML Programming								
LA-5-MM-24T	DSC	**Mathematics-V** Linear Algebra (Theory)	4	-	-	4	40	60	100	3
	GE-Generic	(Interdisciplinary) from other departments	4	--		4	40	60	100	3
ASIA-5-ST-24T/ASIB-5-ST-24T	DSE	**Statistics:** 1.Applied Statistics-IA (Theory) 2.Applied Statistics – IB (Theory)	4	-	-	4	40	60	100	3
WT-5-CS-22T/ SE-5-CS-22T/ PY-5-CS-22T	DSE	**Computer Science:** 1. Web Technologies 2. Software Engineering 3. Programming in Python (Theory)	4	-	-	4	40	60	100	3
LA-5-MM-22P	DSE	**Mathematics** Linear Algebra (Practical)	--	1	2	1	20	30	50	3
ASIA-5-ST-22P /ASIB-5-ST-22P	DSE	**Statistics** 1.Applied Statistics-IA (Practical) 2. Applied Statistics – IB (Practical)	--	-	3	1	20	30	50	3
WT-5-CS-22P/ SE-5-CS-22P/ PY-5-CS-22P	DSE	**Computer Science** 1. Web Technologies 2. Software Engineering 3. Programming in Python (Practical)	--	-	3	1	20	30	50	3
			18	9		21	240	360	600	

Generic Elective offered to other disciplines:

Department of Commerce:

(a) Basics in Economics

(b) Basics in Accounting and Taxation

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Department of Mathematics:
(a) Basics Mathematics
(b) Mathematics for Economics and Finance
Department of Computer Science:
(a) Cyber Security
(b) Web Development using Word Press
Department of Statistics:
(a) Basic Statistics using Python
(b) Basic Statistics using Tableau
Department of Psychology:
(a) Stress Management and Wellbeing
(b) Psychological Competencies
Department of Languages:
(a) Indian Knowledge Systems
(b) Leadership and Management: The Indian Ethos
Department of Management:
(a) Entrepreneual Development
(b) Business Environment
Department of Mass Communication:
(a) Social Media
(b) Film Appreciation
Department of Physics :
(a) Physics in daily life
(b) Our Universe
(c) Renewable energy Sources
Department of Electronics:
(a) Basic Electronics
(b) Computer Hardware
(c) Fundamental of Digital Electronics
Department of English:
(a) Content Writing
(b) Creative Writing

SIXTH SEMESTER

Subject Code	Course Type	Course Title	Hours/ Week			Credits	Max Marks		Total Marks	Duration of Exam
			L	T	P		Int	Ext		
NT-6-MM-22T /VC-6-MM-22T	SEC 4	**Mathematics:** Number Theory / Vector Calculus	2	--		2	20	30	50	2
RP-6-ST-22T		**Statistics:** R Programming								
GDS-6-CS-22T		**Computer Science:** Google Data Studio								

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NA-6-MM-22T /IT-6-MM-22T /ASG-6-MM-22T	DSE	**Mathematics:** 1. Numerical Analysis (Theory) 2. Integral Transforms (Theory) 3. Analytical Solid Geometry (Theory)	4	--		4	40	60	100	3
AS2A-6-ST-22T /AS2B-6-ST-22T	DSE	**Statistics:** 1.Applied Statistics-IIA (Theory) 2.Applied Statistics – IIB (Theory)	4	--		4	40	60	100	3
CNC-6-CS-22T/ ST-6-CS-22T/ OS-6-CS-22T	DSE	**Computer Science:** 1. Computer Networks & Cloud Computing 2. Software Testing 3. Operating Systems (Theory)	4	--		4	40	60	100	3
NA-6-MM-22P / IT-6-MM-22P /ASG-6-MM-22P	DSE	**Mathematics:** 1. Numerical Analysis (Practical) 2. Integral Transforms (Practical) 3. Analytical Solid Geometry (Practical)	--	3		1	20	30	50	3
AS2A-6-ST-22P /AS2B-6-ST-22P	DSE	**Statistics:** 1.Applied Statistics-IIA (Practical) 2. Applied Statistics – IIB (Practical)	--	3		1	20	30	50	3
CNC-6-CS-22P/ ST-6-CS-22P/ OS-6-CS-22P	DSE	**Computer Science:** 1. Computer Networks & Cloud Computing 2. Software Testing 3. Operating Systems (Practical)	--	3		1	20	30	50	3
MPR-6-MM-22/ MM-6-MM-22T	Project Optional	1.Mathematics Project 2.Mathematical Modeling.	6	--		4	40	60	100	3
SPR-6-ST-22/ OR-6-ST-22T		1.Statistics Project 2.Operations Research								
CPR-6-CS-22		1.Computer Science Project								
		Total	20	9		21	240	360	600	

NOTE: SEC: Skill Enhancement Course; DSC: Discipline Specific Course; DSE: Discipline Specific Elective; T: Theory; P: Practical; I: Internal Exam E: End Semester Exam: PR: Project Report; VV: Viva-Voce Examination.

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Statistics Course Structure

Year	Sem	Paper Code	Course Type	Title	Teaching Hrs.	No of Credits	Int Marks	Ext Marks	Max Marks
FIRST	I	DSPRV-1-ST-22T	DSC	Descriptive Statistics, Probability and Random Variables (Theory)	4	4	40	60	100
		DSPRV-1-ST-22P	DSC	Descriptive Statistics, Probability and Random Variables (Practical)	3	1	20	30	50
	II	PD-2-ST-22T	DSC	Probability Distributions (Theory)	4	4	40	60	100
		PD-2-ST-22P	DSC	Probability Distributions (Practical)	3	1	20	30	50
SECOND	III	SM-3-ST-22T	DSC	Statistical Methods (Theory)	4	4	40	60	100
		SM-3-ST-22P	DSC	Statistical Methods (Practical)	3	1	20	30	50
	IV	SI-4-ST-22T	DSC	Statistical Inference (Theory)	4	4	40	60	100
		SI-4-ST-22P	DSC	Statistical Inference (Practical)	3	1	20	30	50
THIRD	V	DCPI-5-ST-22T	SEC 3	Data collection, Presentation and Interpretation	2	2	20	30	50
		AS1A-5-ST-22T AS1B-5-ST-22T	DSE	1.Applied Statistics-IA (Theory) 2.Applied Statistics-IB (Theory)	4	4	40	60	100
		AS1A-5-ST-22P AS1B-5-ST-22P	DSE	1.Applied Statistics-IA (Practical) 2.Applied Statistics-IB (Practical)	3	1	20	30	50
		BS-5-ST-22T IS-5-ST-22T	GE	1.Basic Statistics using python 2.Basic Statistics using Tableau	4	4	40	60	100
	VI	RP-6-ST-22T	SEC 4	R-Programming	2	2	20	30	50
		AS2A-6-ST-22T AS2B-6-ST-22T	DSE	1. Applied Statistics-IIA (Theory) 2. Applied Statistics-IIB (Theory)	4	4	40	60	100
		AS2A-6-ST-22P AS2B-6-ST-22P	DSE	1.Applied Statistics-IIA (Practical) 2.Applied Statistics-IIB (Practical)	3	1	20	30	50
		SP-6-ST-22 OR-6-ST-22T	PROJECT /DSE	Research Methodology and Project/ Operations Research	4	4	40	60	100
				Total	**54**	**42**	**480**	**720**	**1200**

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SUMMARY OF CREDITS

Sl. No.	Course Category	No. of Courses	Credits per Course	Total Credits
1	English Language	4	5	20
2	Second Language	4	5	20
3	DSC	13	5	65
4	DSE	5	5	25
5	GE	1	4	4
6	AECC	2	2	4
7	SEC	4	2	8
8	Research Methodology and Project / DSE	1	4	4
	TOTAL	**34**		**150**
9	Non-CGPA courses	Value added course MOOC's & Extracurricular courses		
		Internship		

Total no. of Credits by the end of Third year 150

- Mathematics Tutorials: Problem solving session for each 20 student's one batch.
- Mathematics: the students are required to opt either the optional paper Mathematical Modeling or Project.
- Statistics: The students are required to either the optional paper Operations Research or Research Methodology and project.
- Non CGPA courses minimum 30 hours/ 4 to 8 weeks courses
- CC (EL): Compulsory Course (English Language); CC (SL): Compulsory Course (Second Language: HI - Hindi; AR - Arabic; SK - Sanskrit; FR - French; TL - Telugu); AECC: Ability Enhancement Compulsory Course; SEC: Skill Enhancement Course; DSC: Discipline Specific Course; GE: Generic Elective; DSE: Discipline Specific Elective; T: Theory; P: Practical; I: Internal Exam E: End Semester Exam: PR: Project Report; VV: Viva-Voce Examination

Note:

- If a student should opt for "1" in SEC in III semester, the student has to opt for "1" only in IV semester and so is the case with "2" and "3". In the case of DSE also the same rule applies.
- UG Ist Year students should enroll for Value added Courses & MOOCs Courses in Semester I & Complete it by the end of Semester III.
- Online courses should be for a minimum of 4 weeks & up to 8 weeks duration
- Non CGPA Courses will have 2 credits each of 30 hours.
- GE Courses will be offered to Students of other Department Programmes.

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