



SAMRAT ASHOK TECHNOLOGICAL INSTITUTE VIDISHA (M.P.)
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV Bhopal)

Scheme of Examination (Semester-I)

for Batch Admitted in session - 2022-23

Bachelor of Technology (B. Tech.) – Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted								Contact Hrs.			Total Credits	
			Theory				Practical				Total Marks	L	T		P
			ES	MS	Assignment	Quiz	ES	LW	Quiz	Total Marks					
CHB101	BSC	Applied Chemistry	60	20	10	10	30	10	10	150	3	0	2	4	
CSA101	ESC	Introduction to Computer Science Engineering	60	20	10	10	30	10	10	150	3	0	2	4	
HUB102	HSMC	Communication and Report Writing	60	20	10	10	30	10	10	150	3	0	2	4	
CSA102	ESC	Digital Electronics	60	20	10	10	--	--	--	100	3	0	0	3	
MAB101	BSC	Linear Algebra and Calculus	60	20	10	10	--	--	--	100	3	1	0	4	
MAC101	MAC*	Universal Human Values and Professional Ethics	--	--		--	60	20	20	100	0	0	2	Grade	
ILC100	ILC	Extracurricular Activities	It is a one credit per year activity endorse in eight semester marksheet												
Total			300	100	50	50	150	50	50	750	15	1	6	19	

MST: Minimum two mid semester tests to be conducted during Semester, MAC: Mandatory courses classes will be conducted in off hours (Weekends)

MAC	Induction Program	Non-Credit
HEC	NSS/NCC/NSO	Non-Credit

Dr. Anand Kumar
Chairman

Abbreviations: ES -End Semester, MS- Mid Semester, LW- Laboratory Work/Assignment. (L: Lecture, T: Tutorial, P: Practical)
BSC- Basic Science Course, ESC- Engineering Science Course, HSMC- Humanities Science and Management Course, MAC- Mandatory, Audit Course, AC- Audit Course, HEC- Holistic Education Course, ITC- Information Technology Course, ILC-Institute Level Course, DC- Department Course, DE-Department Elective, OC- Open Course, DLC- Department Laboratory, PROJ- Project Work



SAMRAT ASHOK TECHNOLOGICAL INSTITUTE VIDISHA (M.P.)
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Scheme of Examination (Semester-II)

for Batch Admitted in session - 2022-23

Bachelor of Technology (B. Tech.) – Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted								Contact Hrs.			Total Credits
			Theory				Practical			Total Marks	L	T	P	
			ES	MS	Assignment	Quiz	ES	LW	Quiz					
PYB101	BSC	Applied Physics	60	20	10	10	30	10	10	150	3	0	2	4
CSA103	ESC	Problem Solving and Data Structure	60	20	10	10	30	10	10	150	3	0	2	4
ITC101	ITC	Python Programming	60	20	10	10	30	10	10	150	3	0	2	4
CSA104	ESC	Principles of Software System	60	20	10	10				100	3	0	0	3
MAB102	BSC	Statistics: Probability Distribution and Differential Equations	60	20	10	10	--		--	100	3	1	0	4
CSL110	ESC	Computer Workshop (Linux Lab)					30	10	10	50	1	0	2	2
MAC102	MAC*	Disaster Management	--	--		--	30	10	10	50	0	0	2	Grade
ILC100	ILC	Extracurricular Activities	It is a one credit per year activity endorse in eight semester marksheet											
Total			300	100	50	50	150	50	50	750	16	1	8	21

MST: Minimum two mid semester tests to be conducted during Semester, MAC: Mandatory courses classes will be conducted in off hours (Weekends)

ILC	Internship-I (60 Hrs) Institute Level	Non-Credit
HEC	NSS/NCC/NSO	Non-Credit

W 1000-12 11-2022 Prof. Dr. Jyoti Singh

Abbreviations: ES -End Semester, MS- Mid Semester, LW- Laboratory Work/Assignment. (L: Lecture, T: Tutorial, P: Practical)
BSC- Basic Science Course, ESC- Engineering Science Course, HSMC- Humanities Science and Management Course, MAC- Mandatory, Audit Course, AC- Audit Course, HEC- Holistic Education Course, ITC- Information Technology Course, ILC-Institute Level Course, DC- Department Course, DE-Department Elective, OC- Open Course, DLC- Department Laboratory, PROJ- Project Work



SAMRAT ASHOK TECHNOLOGICAL INSTITUTE VIDISHA (M.P.)
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Scheme of Examination (Semester-III)

for Batch Admitted in session-2022-23

Bachelor of Technology (B. Tech.) –Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted								Contact Hrs. per week			Total Credits
			Theory				Practical			Total Marks	L	T	P	
			ES	MS	Assignment	Quiz	ES	LW	Quiz					
MAB-301	BSC	Discrete mathematics	60	20	10	10	--	--	--	100	3	1	0	4
IT-302	DC	Communication system	60	20	10	10	30	10	10	150	3	0	2	4
IT-303	DC	Analysis and Design of Algorithms	60	20	10	10	30	10	10	150	3	0	2	4
IT-304	DC	Object Oriented Programming	60	20	10	10	30	10	10	150	3	0	2	4
OE-305	OE	OE-I	60	20	10	10	--	--	--	100	3	0	0	3
IT-306	DL	Internet Programming	--	--	--	--	30	10	10	50	0	0	4	2
IT-307	ILC	Internship-I (60 Hrs) Institute Level(Evaluation)	--	--	--	--	-	50	-	50	-	-	2	2
Total			300	100	50	50	120	90	40	750	15	1	12	23
	ILC	Extracurricular Activities	Based on participation in extra curriculum activities, one credit per year to be endorsed in the eight semester mark sheet.											
MAC-308	MAC*	Energy, Ecology, Environment & Society	-	20	20	10	-	-	-	-	-	-	-	Grade
HUM-309	HEC*	Holistic Education Course	-	20	20	10	-	-	-	-	-	-	-	Grade

MS: Minimum two mid semester tests are to be conducted during Semester, (L-Lecture, T- Tutorial, P-Practical)

MAC* -Mandatory audit course & HEC*- Holistic education courses classes will be conducted in off hours (Weekends)

Open Course Offered by CSE Session: 2023-24 Semester III					
Open Elective-I (OE-305)	A		B		C
	Computer System Organization		Data Structure		Operating System
Prerequisite	Digital Electronics		Logical thinking and Computer Fundamentals.		Computer Fundamentals

Abbreviations: ES-End Semester, MS-Mid Semester, LW-Laboratory Work, Assignment (L:Lectre, T:Tutorial, P:Practical), BFC-Basic Science Course, ESC-Engineering Science Course, HSMC-Humanities Science & Management Course, MAC-Mandatory Audit Course, HEC-Holistic Education Course, ILC-Institute Level Course, DC-Department Course, DE-Department Elective, OE-Open Elective, DLC-Departmental Laboratory Course



SAMRATASHOKTECHNOLOGICALINSTITUTEVIDISHA(M.P.)
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Scheme of Examination(Semester-IV)

For Batch Admitted in session -2022-23

Bachelor of Technology (B. Tech.)– Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted								Contact Hrs. per week			Total Credits
			Theory				Practical			Total Marks	L	T	P	
			ES	MS	Assignment	Quiz	ES	LW	Quiz					
IT-401	DC	Computer Network	60	20	10	10	30	10	10	150	3	0	2	4
IT-402	DC	Database Management System	60	20	10	10	30	10	10	150	3	0	2	4
IT-403	DC	Automata and Compiler Design	60	20	10	10	30	10	10	150	3	0	2	4
IT-404	DC	Software Engineering	60	20	10	10	--	--	--	100	3	1	0	4
OE-405	OE	OE-II	60	20	10	10	--	--	--	100	3	0	0	3
IT-406	DL	Advance Java Programming	--	--	--	--	60	20	20	10	0	0	4	2
Total			300	100	50	50	150	50	50	750	15	1	10	21
	ILC	Extracurricular Activities	Based on participation in extra curriculum activities, one credit per year to be endorsed in the eight semester mark sheet.											
HUM-408	HEC*	Holistic Education Course	-	20	20	10	-	-	-	-	-	-	-	Grade

MS: Minimum two mid semester tests are to be conducted during Semester, (L-Lecture, T- Tutorial, P-Practical)

HEC*- Holistic education courses classes will be conducted in off hours (Weekends)

Open Courses launched by respective Programmes are not applicable for students of parental programmes.						
OpenCourseOfferedbyITSession:2023-24 Semester IV						
Open Elective-II(OE-405)	A		B		C	
	Foundation of Block chain Technology		Foundation of Data Science		Information Theory and Coding	
Prerequisite	Mathematics		Mathematics		Knowledge of Communication System	
Remark	Not applicable for –CSEB lock chain		Not applicable for -AIADS		Open to all	

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Scheme of Examination (Semester-V)

for Batch Admitted in session - 2022-23

Bachelor of Technology (B. Tech.) –Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted								Contact Hrs. per week			Total Credits	
			Theory				Practical				Total Marks	L	T		P
			ES	MS	Assignment	Quiz	ES	LW	Quiz						
IT-501	DC	Mobile Application Development	60	20	10	10	30	10	10	150	3	0	2	4	
IT-502	DC	Wireless & Mobile Computing	60	20	10	10	30	10	10	150	3	0	2	4	
IT-503	DC	Artificial Intelligence	60	20	10	10	30	10	10	150	3	0	2	4	
IT-504	DE-1		60	20	10	10	--	--	--	100	3	1	0	4	
IT-505	OC-3		60	20	10	10	--	--	--	100	3	0	0	3	
IT-506	DLC	IT Workshop (Matlab/Scilab)	--	--	--	--	30	10	10	50	0	0	4	2	
IT-507	ILC	Internship-II (60 Hrs) Institute Level (Evaluation)	--	--	--	--	50	--	--	50	-	-	2	2	
Total			300	100	50	50	170	40	40	750	15	1	12	23	
IT-508	ILC	Extracurricular Activities	It is a one credit per year activity to be endorsed in eight semester marks sheet.												

	DE -1	OC-3
A	Blockchain Technology	Mobile Application Development
B	Digital Image Processing	Analog and Digital Communication
C	Natural Language Processing	Communication System

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Minor Degree and Honour Degree:

Students can opt any number of subjects depending on the number of credits he/she wants to earn in a particular semester for Honours/Minor Degree. Total 20 credits required for Honours/Minor Degree (From V to VIII Semester – Refer pool of attached subjects for Honours/Minor Degree)



SAMRAT ASHOK TECHNOLOGICAL INSTITUTE VIDISHA (M.P.)
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Scheme of Examination (Semester-VI)

for Batch Admitted in session - 2022-23

Bachelor of Technology (B. Tech.) – Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted								Contact Hrs. per week			Total Credits
			Theory				Practical			Total Marks	L	T	P	
			ES	MS	Assignment	Quiz	ES	LW	Quiz					
IT-601	DC	Data Mining and Warehousing	60	20	10	10	30	10	10	150	3	0	2	4
IT-602	DC	Web Application Development	60	20	10	10	30	10	10	150	3	0	2	4
IT-603	DE-2		60	20	10	10				100	3	0	0	3
IT-604	DE-3		60	20	10	10				100	3	1	0	4
IT-605	OC-4		60	20	10	10				100	3	0	0	3
IT-606	DLC	Android Programming					30	10	10	50	0	0	2	1
IT-607		Minor Project					50	50		100	0	0	4	2
Total			300	100	50	50	150	50	50	750	15	1	10	21
IT-608	ILC	Extracurricular Activities	It is a one credit per year activity endorse in eight semester mark sheet											
MST: Minimum two mid semester tests to be conducted during Semester														
		DE -2	DE -3				OC – 4							
A		Cloud Computing	Information Security				Web Application Development							
B		Sensor Network	Data Science Analytics				Big Data Analytics							
C		Soft Computing	Robotics Process Automation				Deep Learning							

- **Subjects offered in DC and DE should not be opted as OC from IoT, AIADS and other departments.**

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Minor Degree and Honour Degree:

Students can opt any number of subjects depending on the number of credits he/she wants to earn in a particular semester for Honours/Minor Degree. Total 20 credits required for Honours/Minor Degree (From V to VIII Semester – Refer pool of attached subjects for Honours/Minor Degree)

Abbreviations: ES-End Semester, MS-Mid Semester, LW-Laboratory Work, Assignment (L:Lecture, T:Tutorial, P:Practical), BFC-Basic Science Course, ESC-Engineering Science Course, HSMC-Humanities Science & Management Course, MAC-Mandatory Audit Course, HEC-Holistic Education Course, ILC-Institute Level Course, DC Department Course, DE-Department Elective, OE-Open Elective, DLC-Departmental Laboratory Course



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Scheme of Examination (Semester-VII)

for Batch Admitted in session - 2022-23

Bachelor of Technology (B. Tech.) – Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted								Contact Hrs. per week			Total Credits	
			Theory				Practical				Total Marks	L	T		P
			ES	MS	Assignment	Quiz	ES	LW	Quiz						
IT-701	DC	Software Testing and Quality	60	20	10	10	30	10	10	150	3	0	2	04	
IT-702	DE-4		60	20	10	10	--	--		100	3	1	0	04	
IT-703	DE-5		60	20	10	10	--	--		100	3	1	0	04	
IT-704	PROJ	Major Project Prelim	--	--	--		60	20	20	100	0	0	8	04	
IT-705	ILC	Internship-III (Completed in Third Year)	--	--	--		30	10	10	50	0	0	2	02	
Total			180	60	30	30	120	40	40	500	9	2	8	18	
IT-706	ILC	Extracurricular Activities			It is a one credit per year activity endorse in eight semester mark sheet										
MST: Minimum two mid semester tests to be conducted during Semester															

	DE -4	DE-5
A	Distributed System	Information and Storage Retrieval
B	Internet Technology	Optimization Techniques
C	Computer Vision	Pattern Recognition

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Minor Degree and Honour Degree:

Students can opt any number of subjects depending on the number of credits he/she wants to earn in a particular semester for Honours/Minor Degree. Total 20 credits required for Honours/Minor Degree (From V to VIII Semester – Refer pool of attached subjects for Honours/Minor Degree)

Abbreviations: ES-End Semester, MS-Mid Semester, LW-Laboratory Work, Assignment (L:Lecture, T:Tutorial, P:Practical), BFC-Basic Science Course, ESC-Engineering Science Course, HSMC-Humanities Science & Management Course, MAC-Mandatory Audit Course, HEC-Holistic Education Course, ILC-Institute Level Course, DC Department Course, DE-Department Elective, OE-Open Elective, DLC-Departmental Laboratory Course



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Scheme of Examination (Semester-VIII)

for Batch Admitted in session - 2022-23

Bachelor of Technology (B. Tech.) - Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted					Contact Hrs. per week			Total Credits	
			Theory			Practical		Total Marks	L	T		P
			ES	MS	Assignment/Quiz	ES	LW/Quiz					
IT-801	PROJ	Major Project https://archive.nptel.ac.in				300	200	500	0	0	20	10
IT-804	ILC	Extracurricular Activities	It is a one credit per year activity endorsed in eight semester mark sheet									04
Total						300	200	500				14

***List of Course suggested by department (Min. of 8 weeks)**

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**Tentative Pool of subjects for Honours and Minor Degree
SWAYAM/NPTEL/MOOC's Courses**

S. No.	Honours Degree for students of parent department	Credit	Minor Degree for students of other department	Credit
1.	Advanced Distributed Systems	3	Statistical Learning for Reliability Analysis	3
2.	Multi-Core Computer Architecture	3	Social Network Analysis	3
3.	Web Based Technologies and Multimedia Application	3	Fundamentals of Communication System and Its Application	3
4.	Cloud Computing	2	Introductory concept of Digital Computing	3
5.	Deep Learning for Computer Vision	3	Practical Cyber Security for Cyber Security Practitioners	3
6.	Cyber Security, Tools, Techniques and Counter Measures	3	Google Cloud Computing Foundations	2
7.	Responsible & Safe AI Systems	3	Introduction To Industry 4.0 And Industrial Internet Of Things	3
8.	Software Conceptual Design	3	Distributed Optimization and Machine Learning,	3

*Note: Those subjects which are already studied in the core scheme from I to VIII semester cannot be opted.

20 additionally to be earned between V to VIII semester Maximum 6 credits per semester from V semester onwards will be permitted.

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