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

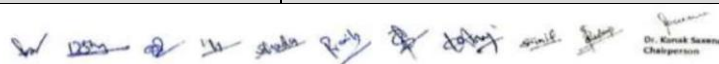### Scheme of Examination (Semester-I)
for Batch Admitted in session - 2024-25
Bachelor of Technology (B. Tech.) – Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hrs.			Total Credits
			Theory				Practical				L	T	P	
			ES	MS	Assignment	Quiz	ES	LW	Quiz					
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
HUB101	HSMC	Communication and Report Writing	60	20	10	10	--	--	--	100	3	0	0	3
CSA102	ESC	Digital Electronics	60	20	10	10	30	10	10	150	3	0	2	4
MAB101	BSC	Linear Algebra and Calculus	60	20	10	10	--	--	--	100	3	1	0	4
ILC100	ILC	Extracurricular Activities	It is a one credit per year activity endorse in eight semester marksheet											
Total			**300**	**100**	**50**	**90**	**90**	**30**	**30**	**650**	**15**	**1**	**6**	**19**
MAC101	MAC*	Universal Human Values and Professional Ethics	--	--		--	60	20	20	100	0	0	2	Grade

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

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 - 2024-25
Bachelor of Technology (B. Tech.) – Information Technology

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hrs.			Total Credits
			Theory				Practical				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
ILC100	ILC	Extracurricular Activities	It is a one credit per year activity endorse in eight semester marksheet											
Total			300	100	50	50	120	40	40	700	16	1	8	21
MAC102	MAC*	Professional ethics and social responsibility	--	--		--	30	10	10	50	0	0	2	Grade
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

Dr. Karuk Saxena
Chairperson

Abbreviations: ES -End Semester, MS- Mid Semester, LW- Laboratory Work/Assignment. (L: Lecture, T: Tutorial, P: Practical)

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

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Scheme of Examination (Semester-III)

for Batch Admitted in session - 2024-25

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

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hrs. per week			Total Credits
			Theory				Practical				L	T	P	
			ES	MS	Assignment	Quiz	ES	LW	Quiz					
MAB 301	BSC	Discrete mathematics	60	20	10	10	--	--	--	100	3	0	0	4
IT- 302	DC	Communication system	60	20	10	10	30	10	10	150	3	0	2	4
IT- 303	DC	Object Oriented Programming	60	20	10	10	30	10	10	150	3	0	2	4
IT-304	DC	Analysis and Design of Algorithms	60	20	10	10	30	10	10	150	3	0	2	4
IT-305	DC	Computer System Organisation	60	20	10	10	--	--	--	100	3	0	0	3
IT-306	DLC	Internet Programming	--	--	--	--	30	10	10	50	0	0	4	2
IT- 307	ILC	Internship-I (60 Hrs) Institute Level (Evaluation)	--	--	--	--	50	-	-	50	-	-	2	1
Total			**300**	**100**	**50**	**50**	**170**	**40**	**40**	**750**	**15**	**1**	**12**	**22**
	ILC	Extracurricular Activities	It is a one credit per year activity to be endorsed in eight semester marks sheet.											
MAC- 308	MAC*	Energy, Ecology, Environment & Society												Grade
HUM -309	HEC*	Holistic Education Course												Grade

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

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

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

SAMRAT ASHOK TECHNOLOGICAL INSTITUTE VIDISHA (M.P.)
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Scheme of Examination (Semester-IV)
for Batch Admitted in session - 2024-25
Bachelor of Technology (B. Tech.) – Information Technology (Dept. of IT)

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hrs. per week			Total Credits
			Theory				Practical							
			ES	MS	Assignment	Quiz	ES	LW	Quiz		L	T	P	
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
IT-405	DC	Information Theory and Coding	60	20	10	10	--	--	--	100	3	1	0	4
IT-406	DL	Advance Java Programming	--	--	--	--	30	10	10	50	0	0	4	2
Total			**300**	**100**	**50**	**50**	**180**	**60**	**60**	**750**	**15**	**2**	**10**	**22**
	ILC	Extracurricular Activities	Based on participation in extra curriculum activities, one credit per year to be endorsed in the eight semester mark sheet.											

MS: Minimum two mid semester tests are to be conducted during Semester ,(L-Lecture, T-Tutorial, P- Practical)
MST: Minimum two mid semester tests to be conducted during Semester* MAC and HEC courses classes will be conducted in off hours (Weekends)

Internship-II (90 Hrs) External /Institute Level

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

SAMRAT ASHOK TECHNOLOGICAL INSTITUTE VIDISHA (M.P.)
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Scheme of Examination (Semester-V)
for Batch Admitted in session - 2024-25
Bachelor of Technology (B. Tech.) –Information Technology (Dept. of IT)

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hrs. per week			Total Credits
			Theory				Practical				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	0	0	3
IT-505	OC-1		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	-	-	4	2
Total			**300**	**100**	**50**	**50**	**170**	**40**	**40**	**750**	**15**	**0**	**14**	**22**
IT-508	ILC	Extracurricular Activities	It is a one credit per year activity to be endorsed in eight semester marks sheet.											

	DE -1	OC-1
A	Block chain 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)

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

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

for Batch Admitted in session - 2024-25

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

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	1	0	4
IT-604	DE-3		60	20	10	10				100	3	1	0	4
IT-605	OC-2		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**	**2**	**10**	**22**
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 – 2
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

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

Internship-III (120 Hrs) External /Institute Level

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: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

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Scheme of Examination (Semester-VII)
for Batch Admitted in session - 2024-25
Bachelor of Technology (B. Tech.) – Information Technology (Dept. of IT)

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hrs. per week			Total Credits
			Theory				Practical							
			ES	MS	Assignment	Quiz	ES	LW	Quiz		L	T	P	
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	4	02
Total			**180**	**60**	**30**	**30**	**120**	**40**	**40**	**500**	**9**	**2**	**14**	**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: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

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Scheme of Examination (Semester-VIII)

for Batch Admitted in session - 2024-25

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

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted					Total Marks	Contact Hrs. per week			Total Credits
			Theory			Practical						
			ES	MS	Assignment/ Quiz	ES	LW/ Quiz		L	T	P	
IT-801	Major Project	Major Projec				300	200	500	0	0	20	10
IT-802	ILC	Extracurricular Activities	It is a one credit per year activity endorsed in eight semester mark sheet									04
Total						**300**	**200**	**500**				**14**

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: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

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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