



**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 w.e.f July 2024

**Bachelor of Technology (B. Tech.) – CSE (IOT)**

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					
PYB 101	BSC	Applied Physics	60	20	10	10	30	10	10	150	3	0	2	4
CSA 101	ESC	Introduction to Computer Science Engineering	60	20	10	10	30	10	10	150	3	0	2	4
IOA 103	ESC	Basic Electrical Engineering	60	20	10	10	30	10	10	150	3	0	2	4
CSA 102	ESC	Digital Electronics	60	20	10	10	--	--	--	100	3	0	0	3
MAB 101	BSC	Linear Algebra and Calculus	60	20	10	10	--	--	--	100	3	1	0	4
ILC 100	ILC	Extracurricular Activities	It is a one credit per year activity endorse in eight semester marks											
<b>Total</b>			300	100	50	50	90	30	30	650	15	1	6	19
MAC 101	MAC*	Universal Human Values	--	--	--	--	60	20	20	100	0	0	2	Grade

MST: Minimum two mid semester tests are 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- Departmental Course, DE- Departmental Elective, OC- Open Course, DLC- Departmental Laboratory, ORPJ-Project Work



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**Scheme of Examination (Semester-II)**

**for Batch Admitted in session - 2024-25 w.e.f July 2024**

**Bachelor of Technology (B. Tech.) – CSE (IOT)**

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					
CHB 101	BSC	Applied Chemistry	60	20	10	10	30	10	10	150	3	0	2	4
CSA 103	ESC	Problem Solving Using Data Structure	60	20	10	10	30	10	10	150	3	0	2	4
ITC 101	ITC	Python Programming	60	20	10	10	30	10	10	150	3	0	2	4
HUB 101	HSMC	Communication and Report Writing	60	20	10	10	--	--	--	100	3	0	0	3
MAB 102	BSC	Statistics: Probability Distribution and Differential Equation	60	20	10	10	--	--	--	100	3	1	0	4
CSL 110	ESC	Computer Workshop (Linux Lab)	--	--	--	--	30	10	10	50	1	0	2	2
ILC 100	ILC	Extracurricular Activities	Based on participation in extra curriculum activities, one credit per year to be endorsed in the eight semester mark sheet.											
<b>Total</b>			300	100	50	50	120	40	40	700	16	1	8	21
MAC 102	MAC	Professional Ethics and Social Responsibility	--	20	20	10				50	0	0	2	Grade

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

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



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**Scheme of Examination (Semester-III)**

for Batch Admitted in session - 2024-25 w.e.f July 2024

**Bachelor of Technology (B. Tech.) – CSE (IOT)**

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	-	-	3
IO-302	DC	Electronic Devices & Circuits	60	20	10	10	30	10	10	150	3	-	2	4
IO-303	DC	Object Oriented Programming with Java	60	20	10	10	30	10	10	150	3	-	2	4
IO-304	DC	Analysis and Design of Algorithms	60	20	10	10	30	10	10	150	3	-	2	4
IO-305	DC	Computer System Organization	60	20	10	10	--	--	--	100	3	-	-	3
IO-306	DL	Web Application Development	--	--	--	--	30	10	10	50	-	-	4	2
IO-307	ILC	Internship-I (60 Hrs) Institute Level (Evaluation)	--	--	--	--	-	50	--	50	-	-	4	2
		<b>Total</b>	<b>300</b>	<b>100</b>	<b>50</b>	<b>50</b>	<b>120</b>	<b>90</b>	<b>40</b>	<b>750</b>	<b>15</b>	<b>-</b>	<b>14</b>	<b>22</b>
	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* (Optional)	Holistic Education Course (Indian Classic music Instrumental)	-	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)



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

**for Batch Admitted in session - 2024-25 w.e.f July 2024**

**Bachelor of Technology (B. Tech.) - CSE (IOT)**

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					
IO-401	DC	Microprocessors and Microcontrollers	60	20	10	10	30	10	10	150	3	0	2	4
IO-402	DC	Database Management System	60	20	10	10	30	10	10	150	3	0	2	4
IO-403	DC	Signals and Systems	60	20	10	10	30	10	10	150	3	0	2	4
IO-404	DC	Foundation of IoT	60	20	10	10	-	-	-	100	3	1	0	4
IO-405	DC	Communication System	60	20	10	10	-	-	-	100	3	1	0	4
IO-406	DLC	Advance Java Programming	-	-	-	-	60	20	20	100	0	0	4	2
<b>Total</b>			<b>300</b>	<b>100</b>	<b>50</b>	<b>50</b>	<b>150</b>	<b>50</b>	<b>50</b>	<b>750</b>	<b>15</b>	<b>2</b>	<b>10</b>	<b>22</b>
	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 )



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**Scheme of Examination (Semester-V)**

**for Batch Admitted in session - 2024-25 w.e.f July 2024**

**Bachelor of Technology (B. Tech.) – CSE (IOT)**

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					
IO 501	DC	Artificial Intelligence & Machine Learning	60	20	10	10	30	10	10	150	3	0	2	4
IO 502	DC	Operating Systems for IoT	60	20	10	10	30	10	10	150	3	0	2	4
IO 503	DC	Ad-hoc & Sensor Networks for IoT	60	20	10	10	30	10	10	150	3	0	2	4
IO 504	DE	DE – I	60	20	10	10	--	--	--	100	3	0	0	3
OE 505	OE	OE-I	60	20	10	10	--	--	--	100	3	0	0	3
IO 506	DLC	IoT Lab	--	--	--	--	30	10	10	50	0	0	4	2
IO 507	ILC	Internship-II (60 Hrs) Institute Level (Evaluation)	--	--	--	--		50	--	50	-	-	2	2
<b>Total</b>			<b>300</b>	<b>100</b>	<b>50</b>	<b>50</b>	<b>120</b>	<b>90</b>	<b>40</b>	<b>750</b>	<b>15</b>	<b>0</b>	<b>12</b>	<b>22</b>
	ILC	Extracurricular Activities	It is a one credit per year activity to be endorsed in eight semester marks sheet.											

	DE -I	OC-I
A	IoT Communication Protocols	IoT Communication Protocols
B	5G and IoT Technologies	Operating Systems for IoT
C	Wireless network	Ad-hoc & Sensor Networks for IoT

**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 - 2024-25 w.e.f July 2024**

**Bachelor of Technology (B. Tech.) – CSE (IOT)**

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					
IO 601	DC	IoT Cloud Processing and Analytics	60	20	10	10	30	10	10	150	3	0	2	4
IO 602	DC	Programming Languages for IoT	60	20	10	10	30	10	10	150	3	0	2	4
IO 603	DE	DE-II	60	20	10	10				100	3	0	0	3
IO 604	DE	DE -III	60	20	10	10				100	3	1	0	4
OE 605	OE	OE – II	60	20	10	10				100	3	0	0	3
IO 606	DLC	Lab View					30	10	10	50	0	0	4	2
IO 607	DLC	Minor Project					50	50		100	0	0	4	2
			<b>300</b>	<b>100</b>	<b>50</b>	<b>50</b>	<b>140</b>	<b>80</b>	<b>30</b>	<b>750</b>	<b>15</b>	<b>1</b>	<b>12</b>	<b>22</b>
	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 -II	DE -III	OC – II
A	IoT Security	Mobile Application Development for IoT	IoT Cloud Processing and Analytics
B	Cryptography	Web Technology	Programming Languages for IoT
C	Information Theory and Coding	UI/UX	IoT Security

**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)**



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**Scheme of Examination (Semester-VII)**

**for Batch Admitted in session - 2024-25 w.e.f July 2024**

**Bachelor of Technology (B. Tech.) – CSE (IOT)**

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						
IO 701	DC	Data Analytics for IoT	60	20	10	10	30	10	10	150	3	0	2	04	
IO 702	DE	DE-IV	60	20	10	10	--	--		100	3	1	0	04	
IO 703	DE	DE-V	60	20	10	10	--	--		100	3	1	0	04	
IO 704	PROJ	Major Project Prelim	--	--	--		60	40		100	0	0	8	04	
IO 705	ILC	Internship-III (Completed in Third Year)	--	--	--			50		50	0	0	4	02	
<b>Total</b>			<b>180</b>	<b>60</b>	<b>30</b>	<b>30</b>	<b>90</b>	<b>100</b>	<b>10</b>	<b>500</b>	<b>9</b>	<b>2</b>	<b>14</b>	<b>18</b>	
	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 -IV	DE-V
<b>A</b>	IoT System Architectures	Industrial IoT
<b>B</b>	Embedded Systems Design	AR and VR
<b>C</b>	Real time Systems	Edge Computing

**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)**



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**Scheme of Examination (Semester-VIII)**

for Batch Admitted in session - 2024-25 w.e.f July 2024

**Bachelor of Technology (B. Tech.) - CSE (IOT)**

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					
IO 801	PROJ	Major Project				300	200	500	0	0	20	10
IO 802	ILC	Extracurricular Activities	It is a one credit per year activity endorsed in eight semester mark sheet									04
<b>Total</b>						<b>300</b>	<b>200</b>	<b>500</b>				<b>14</b>

**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)**



### Tentative Pool of subjects for Honours and Minor Degree

#### SWAYAM/NPTEL/MOOC's Courses

S. No.	Honours Degree for students of parent department	Minor Degree for students of other department	Remark
1.	Cloud Computing and Distributed Systems	Analog and Digital Electronics	8-12 Weeks
2.	Switching Circuits and Logic Design	Computer Networks And Internet Protocol	8-12 Weeks
3.	Advanced Computer Networks	Microprocessor and Microcontroller	8-12 Weeks
4.	Embedded System Design with ARM	Foundation of Cloud IoT Edge ML	8-12 Weeks
5.	Embedded Sensing, Actuation and Interfacing Systems	Foundations of Cyber Physical Systems	8-12 Weeks
6.	Digital System Design	Introduction to Embedded System Design	8-12 Weeks
7.	An Introduction to Information Theory	Introduction To Industry 4.0 And Industrial Internet Of Things	8-12 Weeks
8.	Industrial Automation And Control	Introduction To Internet Of Things	8-12 Weeks

\*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.