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.) – Internet of Things

Subject Code	Subject Category	Subject Name	Maximum Marks Allotted							Total Marks	Contact Hrs.			Total Credits
			Theory				Practical				L	T	P	
			ES	MS	Assign ment	Quiz	ES	LW	Quiz					
PYB101	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
IOA103	ESC	Basic Electrical Engineering	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	--	--		--	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

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.)
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV Bhopal)

Scheme of Examination (Semester-II)
for Batch Admitted in session - 2022-23
Bachelor of Technology (B. Tech.) – Internet of Things

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
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	Language and Writing Skills	60	20	10	10	--	--	--	100	3	0	0	3
MAB 102	BSC	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
MAC 102	MAC	Professional Ethics and Social Responsibility	–	--	--	--	30	10	10	50	0	0	2	Grade
ILC 100	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	10	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

Scheme of Examination (Semester-III)

for Batch Admitted in session - 2022-23

Bachelor of Technology (B. Tech.) – Internet of Things

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	
MAB-301	BSC	Discrete Mathematics	60	20	10	10	--	--	--	100	3	1	0	4
IO-302	DC	Analysis and Design of Algorithms	60	20	10	10	30	10	10	150	3	0	2	4
IO-303	DC	Object Oriented Programming	60	20	10	10	30	10	10	150	3	0	2	4
IO-304	DC	Electronic Devices & Circuits	60	20	10	10	30	10	10	150	3	0	2	4
OE-305	OE	OE-1	60	20	10	10	--	--	--	100	3	0	0	3
IO-306	DL	Internet Programming	--	--	--	--	30	10	10	50	0	0	4	2
IO-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 Courses Offered by IoT in Session: 2023-24 Semester III (For the students of other departments). Students must check the prerequisite of each course.			
Open Elective-I (OE-305)	A	B	C
	Computer System Organisation	Object Oriented Programming	Data Structure
Prerequisite	Fundamental knowledge of Digital Electronics	Fundamental knowledge of Programming Skills	Logical Thinking and Computer Fundamentals
Remark	Open to All	Not Applicable for * CSE and Allied branches	Not Applicable for * CSE and Allied branches, EC

			SAMRAT ASHOK TECHNOLOGICAL INSTITUTE VIDISHA (M.P.) (A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV Bhopal)												
			Scheme of Examination (Semester-IV)												
			for Batch Admitted in session - 2022-23												
			Bachelor of Technology (B. Tech.) – Internet of Things												
			Maximum Marks Allotted								**Contact Hrs. per week**			**Total Credits**
Subject Code	**Subject Category**	**Subject Name**	**Theory**				**Practical**			**Total Marks**				
			ES	MS	Assignment	Quiz	ES	LW	Quiz		L	T	P	
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
OE-405	OE	OE-II	60	20	10	10	-	-	-	100	3	0	0	3
IO-406	DLC	Advance Java Programming	-	-	-	-	60	20	20	100	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 Course Offered by IoT in Session: 2023-24 Semester IV (For the students of other departments). Students must check the prerequisite of each course.			
Open Course-II (OE-405)	**A**	**B**	**C**
	Microprocessor	**Foundation of IoT**	**Foundation of Blockchain Technology**
Prerequisite	**Digital Electronics**	**--**	**Basic knowledge of Mathematics**
Remark	**Open to All**	**Open to All**	**Not applicable for - Block Chain**

			Scheme of Examination (Semester-V)											
			for Batch Admitted in session - 2022-23 w.e.f. July - 2024											
			Bachelor of Technology (B. Tech.) – Internet of Things											
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					
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	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-III	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	-	-	4	2
Total			**300**	**100**	**50**	**50**	**120**	**90**	**40**	**750**	**15**	**-**	**14**	**22**
	ILC	Extracurricular Activities	It is a one credit per year activity to be endorsed in eight semester marks sheet.											

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

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 S

emester – Refer pool of attached subjects for Honours/Minor Degree)

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

Scheme of Examination (Semester-VI)

for Batch Admitted in session - 2022-23 w.e.f. July - 2024

Bachelor of Technology (B. Tech.) – Internet of Things

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 – IV	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
			300	100	50	50	140	80	30	750	15	`1	12	22
	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	OE – IV
A	IoT Security	Mobile Application Development for IoT	IoT Cloud Processing and Analytics
B	Cryptography	Web Engineering	Programming Languages for IoT
C	Information Theory and Coding	UI/UX	IoT Security

Minor Degree and Honour Degree: **List of MOOCs/SWAYAM Courses will be notified before the start of the semester**

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)

SAMRATASHOKTECHNOLOGICALINSTITUTEVIDISHA(M.P.)
(AGovt .Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV (Bhopal)

Scheme of Examination(Semester-VII) Revised

For Batch Admitted in session -2022-23

Bachelor of Technology(B.Tech.)– Internet of Things

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					
IO-701	DC	Data Analytics for IoT	60	20	10	10	--	--	--	100	3	0	0	03
IO-702	DE-4	DE-IV	60	20	10	10	--	--	--	100	3	0	0	03
IO-703	DE-5	DE-V	60	20	10	10	--	--	--	100	3	0	0	03
IO-704	DE-6	DE-VI	60	20	10	10	--	--	--	100	3	0	0	03
IO-705	PROJ	Major Project Prelim	--	--	--	--	100	50	--	150	0	0	8	04
IO-706	ILC	Internship-III (Completed in Third Year)	--	--	--	--	--	100	--	100	0	0	4	02
Total			**240**	**80**	**40**	**40**	**100**	**150**	**--**	**650**	**12**	**0**	**12**	**18**
IO-707	ILC	Extracurricular Activities	It is a one credit per year activity endorse in eight semester marksheet											
MST: Minimum two mid semester tests to be conducted during Semester														

		DE -4	DE-5	DE-6
A		IoT System Architectures	Industrial IoT	Soft Computing
B		Embedded Systems Design	AR and VR	Digital design with Verilog
C		Real time Systems	Edge Computing	Distributed System

Abbreviations:ES-EndSemester,MS-MidSemester,LW-LaboratoryWork,Assignment(L:Lectre,T:Tutorial,P:Practical),BFC-BasicScienceCourse,ESC-EngineeringScience 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

			SchemeofExamination(Semester-VIII) Revised									
			forBatchAdmittedinsession-2022-23									
			Bachelor of Technology(B.Tech.)- Internet of Things									
			Maximum Marks Allotted						**Contact Hrs. per week**			**Total Credits**
Subject Code	**Subject Category**	**Subject Name**	**Theory**			**Practical**		**Total Marks**				
			ES	MS	Assignment/ Quiz	ES	LW		L	T	P	
IO-801	PROJ	Major Project	--	--	--	250	150	400	0	0	20	10
IO-802	ILC	Extracurricular Activities	Itis a one credit per year activity endorsed in eight semester marksheet			100	--	100	--	--	--	04
Total						**350**	**150**	**500**	**0**	**0**	**20**	**14**

Abbreviations:ES-EndSemester,MS-MidSemester,LW-LaboratoryWork,Assignment(L:Lectre,T:Tutorial,P:Practical),BFC-BasicScienceCourse,ESC-EngineeringScience 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