

SAMRAT ASHOK TECHNOLOGICAL INSTITUTE VIDISHA (M.P.)

(A Goyt, 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

						37 1								
	8	1			Max	dmum Mark	s Allotted					ontact H		72
Subject	Subject	Subject Name		7	heory			Practical		Total		oniact H	15.	Total
Code	Category	DANAGE CONTRACTOR	ES	MS	Assign ment	Quiz	ES	LW	Quiz	Marks	L	Т	Р	Credits
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	2	<u> </u>	22	100	3	0	0	3
MAB101	BSC	Linear Algebra and Calculus	60	20	10	10			- 39	100	3	1	0	4
MAC101	MAC*	Universal Human Values				<u> </u>	80	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	otal			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	
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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, DLCDepartment 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

					Maxi	mum Mark								
Subject	Subject	Subject Name		1	Theory			Practical		Total	C	ontact H	rs.	Total
Code	Category		ES	MS	Assignment	Quiz	ES LW C		Quiz	Marks	L	т	Р	Credits
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 or	ne credit per	year activi	ty endorse	in eight se	mester ma	rksheet			
Total			300	100	50	50	150	50	50	750	15	1	10	21

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



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

Scheme of Examination (Semester-III)

for Batch Admitted in session - 2022-23

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

				Maxim	ium Mar	ks Allo	otted			Cont	act Hr	s. per	Total Credits 4 4 4 4 3 2 2 23
Subject	Subject Name			Theory		F	Practic	al	Total		week		
Category	,	ES	MS	Assignment	Quiz	ES	LW	Quiz	Marks	L	Т	Р	Credits
BSC	Discrete Mathematics	60	20	10	10				100	3	1	0	4
DC	Analysis and Design of Algorithms	60	20	10	10	30	10	10	150	3	0	2	4
DC	Object Oriented Programming	60	20	10	10	30	10	10	150	3	0	2	4
DC	Electronic Devices & Circuits	60	20	10	10	30	10	10	150	3	0	2	4
OE	OE-1	60	20	10	10				100	3	0	0	3
DL	Internet Programming					30	10	10	50	0	0	4	2
ILC	Internship-I (60 Hrs) Institute Level (Evaluation)			-1		-	50		50	1	-	2	2
	Total	300	100	50	50	120	90	40	750	15	1	12	23
ILC	Extracurricular Activities			rticipation in extra	curricul	um act	ivities,	one cred	lit per year to l	oe endor	rsed in	the eight	semester
MAC*	Energy, Ecology, Environment & Society	-	20	20	10	-	-	-	-	ı	-	-	Grade
HEC*	Holistic Education Course	-	20	20	10	-	-	-	-	1	-		Grade
	BSC DC DC DC DC OE DL ILC ILC MAC*	BSC Discrete Mathematics DC Analysis and Design of Algorithms DC Object Oriented Programming DC Electronic Devices & Circuits OE OE-1 DL Internet Programming ILC Internship-I (60 Hrs) Institute Level (Evaluation) Total ILC Extracurricular Activities MAC* Energy, Ecology, Environment & Society	BSC Discrete Mathematics 60 DC Analysis and Design of Algorithms 60 DC Object Oriented Programming 60 DC Electronic Devices & Circuits 60 OE OE-1 60 DL Internet Programming ILC Internship-I (60 Hrs) Institute Level (Evaluation) Total 300 ILC Extracurricular Activities Based mark MAC* Energy, Ecology, Environment & Society	BSC Discrete Mathematics 60 20 DC Analysis and Design of Algorithms 60 20 DC Object Oriented Programming 60 20 DC Electronic Devices & Circuits 60 20 OE OE-1 60 20 DL Internet Programming ILC Internship-I (60 Hrs) Institute Level (Evaluation) Total 300 100 ILC Extracurricular Activities Based on pamark sheet. MAC* Energy, Ecology, Environment & Society 20	Subject Name Theory ES MS Assignment BSC Discrete Mathematics 60 20 10 DC Analysis and Design of Algorithms 60 20 10 DC Object Oriented Programming 60 20 10 DC Electronic Devices & Circuits 60 20 10 OE OE-1 60 20 10 DL Internet Programming ILC Internship-I (60 Hrs) Institute Level (Evaluation) Total 300 100 50 ILC Extracurricular Activities Based on participation in extramark sheet. MAC* Energy, Ecology, Environment & Society - 20 20	Subject Category Subject Name ES MS Assignment Quiz	Subject Category Subject Name ES MS Assignment Quiz ES	BSC	Subject Category Subject Name ES MS Assignment Quiz ES LW Quiz	Subject Category Subject Name ES MS Assignment Quiz ES LW Quiz Marks	Subject Category Subject Name ES MS Assignment Quiz ES LW Quiz Marks L	Subject Category Subject Name ES MS Assignment Quiz ES LW Quiz Marks L T	Subject Category Subject Name ES MS Assignment Quiz ES LW Quiz Marks L T P

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 S	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)											
	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, E											
Department of Information Technology[BoS - IoT - 12.06.2024]											



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

					Max	imum Ma	rks Allo	otted			Camtaa	4 TT		Total Cuadita
Subject	Subject	Subject Name			Theory			Practic	al		Contac	ı Hrs. p	er week	Total Credits
Code	Category	Subject Mane	ES	MS	Assignment	Quiz	ES	LW	Quiz	Total Marks	L	Т	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	-	1	-	-	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 semest sheet.									ster mark					
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							



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

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

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Subject	Subject		Maxir	num M	arks Allotted		D43	2 1		T	Con			Total
Code		Subject Name		ı	Theory	ı	Practi	icai	ı	Total Marks	per	week	<u> </u>	Credits
Code	Category		ES	MS	Assignment	Quiz	ES	LW	Quiz	Total Warks	L	T	P	
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
В	5G and IoT Technologies	Operating Systems for IoT
С	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

		Maximum Marks Allotted									Total Credits			
Subject Code	Subject Category	Subject Name			Theory			Practica	ıl	Total	pe	Contact Hrs. per week Credi L T P 3 0 2 4 3 0 2 4 3 0 0 3 3 1 0 4 3 0 0 3 0 0 4 2 0 0 4 2 15 1 12 22		
Sout	Callegory		ES	MS	Assignment	Quiz	ES	LW	Quiz	Marks	L	T	P	
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 credi	t per y	ear acti	vity end	dorse in	eight sem	ester	mark	sheet	
MCT. Minin	4				•		-							

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
В	Cryptography	Web Engineering	Programming Languages for IoT
С	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								Contact Hrs.			Total
			Theory				Practical			Total	per week			Credits
			ES	MS	Assignment	Quiz	ES	LW	Quiz	Marks	L	T	P	
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	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				
В	Embedded Systems Design	AR and VR	Digital design with Verilog				
С	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



SAMRATASHOKTECHNOLOGICALINSTITUTEVIDISHA(M.P.) (AGovt.AidedUGCAutonomous&NAACAccreditedInstituteAffiliatedtoRGPVBhopal)

SchemeofExamination(Semester-VIII) Revised

forBatchAdmittedinsession-2022-23

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

		Bachelor of Technology (B. Tech.)- Interfact of Timigs											
Subject Code	Subject Category	Subject Name	Maximum Marks Allotted							tact I	Total		
			Theory			Practical		Total	per week			Credits	
			ES	MS	Assignment/ Quiz	ES	LW	Marks	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