

SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)
[B19CS4101]

IV B. Tech I Semester (R19) Regular Examinations
CRYPTOGRAPHY AND NETWORK SECURITY
COMPUTER SCIENCE & ENGINEERING
MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Differentiate Active attacks and Passive attacks.	1	2	7
	b).	Explain Traditional Block cipher Structure.	1	2	8
OR					
2.	a).	What is monoalphabetic cipher? How it differs from Caesar cipher.	1	2	7
	b).	Explain Block cipher design principles.	1	2	8
UNIT-II					
3.	a).	Perform Encryption and Decryption using RS Algorithm for p=17, q=11, e=7, M=88.	2	3	8
	b).	Explain the structure of AES algorithm with neat diagram and describe the steps in AES encryption.	2	2	7
OR					
4.	a).	Find the secret key shared between User A and User B using Diffie Hellman Key exchange algorithm for the following: q=97, a=5, the private keys X_A= 36, X_B = 58.	2	3	8
	b).	Explain Block Cipher modes of operations.	2	2	7
UNIT-III					
5.	a).	Illustrate digital signature algorithm with neat diagram and explain how to sign and verify using DSS algorithm.	3	3	8
	b).	Differentiate between HMAC and CMAC	3	2	7
OR					
6.	a).	List and explain various steps of SHA in detail with neat diagram.	3	2	8
	b).	Describe Kerberos with steps to grant the ticket.	3	2	7
UNIT-IV					
7.	a).	Describe IP sec architecture with neat diagram.	4	2	7
	b).	Discuss the services provided by PGP with neat diagram.	4	2	8
OR					
8.	a).	Discuss in detail about SSL/TLS.	4	2	8
	b).	Explain Web security requirements.	4	2	7
UNIT-V					
9.	a).	Explain key elements in Blockchain technology.	5	2	7
	b).	Explain about different types of firewalls.	5	2	8
OR					
10.	a).	Explain how firewalls are configured.	5	2	7

b).	Describe how Blockchain technology is used in smart contracts	5	2	8
	CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS	

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)
[B19CS4102]

IV B. Tech I Semester (R19) Regular Examinations
MACHINE LEARNING
COMPUTER SCIENCE & ENGINEERING
MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M																																																																																										
UNIT-I																																																																																															
1.	a).	Illustrate in detail about ingredients of Machine Learning.	1	2	8																																																																																										
	b).	Demonstrate about curse of Dimensionality and Overfitting.	1	2	7																																																																																										
OR																																																																																															
2.	a).	List out & explain the models in the output of Machine Learning.	1	2	7																																																																																										
	b).	Differentiate between Prior Probability and Conditional Probability.	1	2	8																																																																																										
UNIT-II																																																																																															
3.	a).	Demonstrate least-squares method using least square regression for classification.	2	2	8																																																																																										
	b).	Demonstrate Nearest Neighbor Classification with suitable example.	2	2	7																																																																																										
OR																																																																																															
4.	a).	Develop Decision trees for following set of training examples.	2	3	8																																																																																										
		<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Day</th> <th>Outlook</th> <th>Temperature</th> <th>Humidity</th> <th>Wind</th> <th>Play Tennis</th> </tr> </thead> <tbody> <tr><td>D1</td><td>Sunny</td><td>Hot</td><td>High</td><td>Weak</td><td>No</td></tr> <tr><td>D2</td><td>Sunny</td><td>Hot</td><td>High</td><td>Strong</td><td>No</td></tr> <tr><td>D3</td><td>Overcast</td><td>Hot</td><td>High</td><td>Weak</td><td>Yes</td></tr> <tr><td>D4</td><td>Rain</td><td>Mild</td><td>High</td><td>Weak</td><td>Yes</td></tr> <tr><td>D5</td><td>Rain</td><td>Cool</td><td>Normal</td><td>Weak</td><td>Yes</td></tr> <tr><td>D6</td><td>Rain</td><td>Cool</td><td>Normal</td><td>Strong</td><td>No</td></tr> <tr><td>D7</td><td>Overcast</td><td>Cool</td><td>Normal</td><td>Strong</td><td>Yes</td></tr> <tr><td>D8</td><td>Sunny</td><td>Mild</td><td>High</td><td>Weak</td><td>No</td></tr> <tr><td>D9</td><td>Sunny</td><td>Cool</td><td>Normal</td><td>Weak</td><td>Yes</td></tr> <tr><td>D10</td><td>Rain</td><td>Mild</td><td>Normal</td><td>Weak</td><td>Yes</td></tr> <tr><td>D11</td><td>Sunny</td><td>Mild</td><td>Normal</td><td>Strong</td><td>Yes</td></tr> <tr><td>D12</td><td>Overcast</td><td>Mild</td><td>High</td><td>Strong</td><td>Yes</td></tr> <tr><td>D13</td><td>Overcast</td><td>Hot</td><td>Normal</td><td>Weak</td><td>Yes</td></tr> <tr><td>D14</td><td>Rain</td><td>Mild</td><td>High</td><td>Strong</td><td>No</td></tr> </tbody> </table>	Day	Outlook	Temperature	Humidity	Wind	Play Tennis	D1	Sunny	Hot	High	Weak	No	D2	Sunny	Hot	High	Strong	No	D3	Overcast	Hot	High	Weak	Yes	D4	Rain	Mild	High	Weak	Yes	D5	Rain	Cool	Normal	Weak	Yes	D6	Rain	Cool	Normal	Strong	No	D7	Overcast	Cool	Normal	Strong	Yes	D8	Sunny	Mild	High	Weak	No	D9	Sunny	Cool	Normal	Weak	Yes	D10	Rain	Mild	Normal	Weak	Yes	D11	Sunny	Mild	Normal	Strong	Yes	D12	Overcast	Mild	High	Strong	Yes	D13	Overcast	Hot	Normal	Weak	Yes	D14	Rain	Mild	High	Strong	No			
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	b).	Explain briefly distance based clustering and hierarchical clustering.	2	2	7																																																																																										
UNIT-III																																																																																															

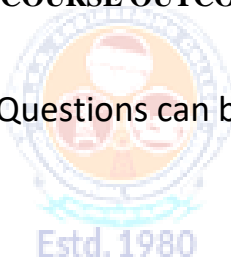
5.	a).	Explain Feature construction and selection.	3	2	7
	b).	Compare Bagging and random forests.	3	2	8
OR					
6.	a).	Explain how thresholding and discretisation is done in feature transformations	3	2	7
	b).	Demonstrate Adaboost and Gradient Boosting.	3	2	8
UNIT-IV					
7.	a).	Summarize Principle Component Analysis.	4	2	8
	b).	Illustrate LDA	4	2	7
OR					
8.	a).	Compare Model Evaluation Techniques.	4	2	8
	b).	Demonstrate the Regularization Process	4	2	7
UNIT-V					
9.	a).	Explain back propagation in Neural Network with suitable Example.	5	2	8
	b).	Explain Markov Decision Process.	5	2	7
OR					
10.	a).	Compare multilayer perceptrons with respect to linear perceptron.	5	2	8
	b).	Outline the uses of Reinforcement Learning.	5	2	7

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



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SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4103]

IV B. Tech I Semester (R19) Regular Examinations

INTERNET OF THINGS

COMPUTER SCIENCE & ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT.**

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a)	Explain the overview of Internet of Things	1	2	8
	b)	Identify the sources of IOT	1	3	7
OR					
2.	a)	Classify the design principles for connected devices	1	2	8
	b)	Illustrate the oneM2M IoT architecture	1	3	7
UNIT-II					
3.	a)	Explain OSI stack for the IoT/M2M Systems	2	2	8
	b)	Demonstrate about ease of designing and affordability	2	2	7
OR					
4.	a)	Demonstrate communication technologies	2	2	7
	b)	Explain device management system in IOT	2	2	8
UNIT-III					
5.	a)	Explain the design Principles for the Web Connectivity for connected-Devices	3	2	8
	b)	Explain features of Arduino with neat block diagram	3	2	7
OR					
6.	a)	Explain about Message Communication protocols for Connected Devices	3	2	8
	b)	Illustrate DHT Sensor with Arduino,	3	2	7
UNIT-IV					
7.	a)	Write about 6lowPAN	4	2	8
	b)	Write about Wired Communication Technologies	4	2	7
OR					
8.	a)	Explain about communication protocols based on the exchange of messages(MQTT)	4	2	8
	b)	Write about COAP	4	2	7
UNIT-V					
9.	a).	Explain the Data Organizing and Analytics in IoT/M2M	5	2	8
	b).	Explain the IOT/M2M Data Acquiring and Storage	5	2	7
OR					
10.	a).	Explain about data storage and computation using Cloud Platform for IoT/M2M	5	2	8

b).	Illustrate about integration and Enterprise Systems	5	2	7
	CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS	

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)**[B19CS4104]****IV B. Tech I Semester (R19) Regular Examinations****MOBILE COMPUTING****COMPUTER SCIENCE & ENGINEERING****MODEL QUESTION PAPER****TIME: 3Hrs.****Max. Marks: 75 M****Answer ONE Question from EACH UNIT.**

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Give brief introduction to voice-oriented data communication standards.	1	2	8
	b).	Explain the Architecture of Mobile Computing.	1	2	7
OR					
2.	a).	Differentiate guided with unguided transmission- signal propagation frequencies in Mobile Communication.	1	3	8
	b).	Explain the Applications of Mobile Computing.	1	2	7
UNIT-II					
3.	a).	Illustrate 3G communication standards.	2	2	8
	b).	Explain the functional Architecture of GSM system, with a neat diagram.	2	2	7
OR					
4.	a).	Discuss about the mobile services and data services in GSM.	2	3	8
	b).	Compare 4G with 5G communication.	2	3	7
UNIT-III					
5.	a).	List and explain the applications of adhoc networks.	3	2	8
	b).	What is MANET? What are the characteristics of MANET?	3	2	7
OR					
6.	a).	Identify various IP and Mobile IP network layers.	3	3	8
	b).	Explain various entities and terms needed to understand mobile IP in detail.	3	2	7
UNIT-IV					
7.	a).	Explain usage models for synchronization in mobile application.	4	2	8
	b).	Briefly discuss about various types of data synchronization in mobile computing systems.	4	3	7
OR					
8.	a).	Classify the rules that need to be applied for conflict resolution.	4	2	8
	b).	Explain domain-dependent specific rules for data synchronization	4	2	7
UNIT-V					
9.	a).	Explain in detail about wireless datagram protocol	5	2	8
	b).	Demonstrate wireless transport layer security (WTLS).	5	2	7
OR					
10.	a).	Write a short note on wireless LAN (WLAN).	5	2	8
	b).	Explain the architecture of WAP and its optimal support.	5	2	7

CO-COURSE OUTCOME**KL-KNOWLEDGE LEVEL****M-MARKS**

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



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SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4105]

IV B. Tech I Semester (R19) Regular Examinations

DATA SCIENCE

COMPUTER SCIENCE & ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Define Distributed Systems and explain Relation to computer system components.	1	2	7
	b).	Distinguish the Message-passing systems versus shared memory systems.	1	2	8
OR					
2.	a).	Explain the framework for a system of logical clocks in logical time.	1	2	7
	b).	Distinguish the Synchronous versus asynchronous executions.	1	2	8
UNIT-II					
3.	a).	Discuss in detail about the Message ordering paradigms.	2	3	8
	b).	Describe the System model and definitions in detail.	2	3	7
OR					
4.	a).	Explain the Asynchronous execution with synchronous communication.	2	3	8
	b).	Describe the Snapshot algorithms for FIFO channels.	2	3	7
UNIT-III					
5.	a).	Elaborate the Ricart-Agrawala algorithm with examples.	3	3	8
	b).	Describe the Suzuki-Kasami's broadcast algorithm.	3	3	7
OR					
6.	a).	Explain in detail about the AND model and the OR model.	3	3	8
	b).	Describe the Algorithms for the single resource model.	3	3	7
UNIT-IV					
7.	a).	Discuss in detail about the different Issues in failure recovery.	4	3	7
	b).	Explain the Algorithm for asynchronous checkpointing and recovery.	4	3	8
OR					
8.	a).	Describe the process of Log-based rollback recovery.	4	3	8
	b).	Explain the Agreement in synchronous systems with failures.	4	3	7
UNIT- V					
9.	a).	Explain about the Data indexing and overlays.	5	3	7
	b).	Discuss about the Memory consistency models.	5	3	8
OR					
10.	a).	Describe the Content addressable networks in peer to peer computing.	5	3	7
	b).	Explain in detail about the Shared memory Mutual Exclusion.	5	3	8

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS

SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4106]

IV B. Tech I Semester (R19) Regular Examinations

NO SQL DATA BASES

COMPUTER SCIENCE & ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Define NoSQL. Explain different types of databases used in NoSQL.	1	2	8
	b).	Write notes on how to work with language bindings.	1	2	7
OR					
2.	a).	List and explain various stores involved in NoSQL.	1	3	8
	b).	List the advantages of NoSQL. Write the differences between SQL and NoSQL.	1	2	7
UNIT-II					
3.	a).	Explain the Language Bindings for NoSQL Data Stores.	2	2	8
	b).	Explain creating records and accessing data in NoSQL with example.	2	2	7
OR					
4.	a).	Explain the CRUD operations on NoSQL.	2	2	8
	b).	Write about updating and deleting records in NoSQL with an example.	2	2	7
UNIT-III					
5.	a).	Explain Hbase Distributed Storage Architecture.	3	2	8
	b).	Briefly write about Eventually Consistent Non-Relational Databases.	3	3	7
OR					
6.	a).	Explain about working with column-oriented databases.	3	2	8
	b).	Explain key/value stores in NoSQL with an example.	3	2	7
UNIT-IV					
7.	a).	What are the different similarities between SQL and MongoDB query features? Explain.	4	2	8
	b).	How the data can be accessed from column-oriented databases like Hbase. Illustrate with an example.	4	3	7
OR					
8.	a).	Illustrate the process of querying Redis Data Stores with an example.	4	2	8
	b).	Write about how to import and export data from Hbase.	4	2	7
UNIT-V					
9.	a).	How Indexing and Ordering is achieved in MongoDB. Explain.	5	2	8
	b).	Explain about the indexing in CouchDB and Apache Cassandra.	5	2	7
OR					
10.	a).	What are the essential concepts behind a Database Index? Explain.	5	2	8

	b).	How the index is created and used in MongoDB. Illustrate with an example.	5	2	7
		CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS	

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4107]

IV B. Tech I Semester (R19) Regular Examinations

DISTRIBUTED SYSTEMS

COMPUTER SCIENCE & ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Define Distributed Systems and explain Relation to computer system components.	1	2	7
	b).	Distinguish the Message-passing systems versus shared memory systems.	1	2	8
OR					
2.	a).	Explain the framework for a system of logical clocks in logical time.	1	2	7
	b).	Distinguish the Synchronous versus asynchronous executions.	1	2	8
UNIT-II					
3.	a).	Discuss in detail about the Message ordering paradigms.	2	3	8
	b).	Describe the System model and definitions in detail.	2	3	7
OR					
4.	a).	Explain the Asynchronous execution with synchronous communication.	2	3	8
	b).	Describe the Snapshot algorithms for FIFO channels.	2	3	7
UNIT-III					
5.	a).	Elaborate the Ricart-Agrawala algorithm with examples.	3	3	8
	b).	Describe the Suzuki-Kasami's broadcast algorithm.	3	3	7
OR					
6.	a).	Explain in detail about the AND model and the OR model.	3	3	8
	b).	Describe the Algorithms for the single resource model.	3	3	7
UNIT-IV					
7.	a).	Discuss in detail about the different Issues in failure recovery.	4	3	7
	b).	Explain the Algorithm for asynchronous check pointing and recovery.	4	3	8
OR					
8.	a).	Describe the process of Log-based rollback recovery.	4	3	8
	b).	Explain the Agreement in synchronous systems with failures.	4	3	7
UNIT-V					
9.	a).	Explain about the Data indexing and overlays.	5	3	7
	b).	Discuss about the Memory consistency models.	5	3	8
OR					
10.	a).	Describe the Content addressable networks in peer to peer computing.	5	3	7
	b).	Explain in detail about the Shared memory Mutual Exclusion.	5	3	8

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS

SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)**[B19CS4108]****IV B. Tech I Semester (R19) Regular Examinations****SOFTWARE PROJECT MANAGEMENT****COMPUTER SCIENCE & ENGINEERING****MODEL QUESTION PAPER****TIME: 3Hrs.****Max. Marks: 75 M****Answer ONE Question from EACH UNIT.**

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Discuss in detail Challenging Areas in Software Projects.	1	2	8
	b).	Compare and Contrast Project Objectives and Organizational Objectives.	1	2	7
OR					
2.	a).	Explain the activities of software project management with an example.	1	2	8
	b).	Explain the steps involved in improving the software economics.	1	2	7
UNIT-II					
3.	a).	What are the default agendas for the life-cycle architecture milestone?	2	3	7
	b).	What are the artifacts involved in software project management? Explain.	2	2	8
OR					
4.	a).	List and explain the principles of modern software management.	2	2	8
	b).	Compare and contrast old and new software project management techniques.	2	2	7
UNIT-III					
5.	a).	Write about model-based software architecture from a management perspective.	3	2	7
	b).	What is the purpose of Checkpoints in software management? Explain various milestones in it.	3	3	8
OR					
6.	a).	Explain about workflows of the software process.	3	2	8
	b).	Explain model-based software architecture from a technical perspective.	3	2	7
UNIT-IV					
7.	a).	Explain about cost and schedule estimation process.	4	2	7
	b).	What are Line-of-Business Organizations? Explain project Organizations along with their evolution.	4	2	8
OR					
8.	a).	Briefly explain the iterative planning process.	4	2	8
	b).	Write notes on work breakdown structures.	4	2	7
UNIT-V					
9.	a).	Explain the PERT technique in project estimation.	5	2	7
	b).	Write and explain the process automation building blocks.	5	2	8
OR					

10.	a).	Explain software quality in detail.	5	2	8
	b).	Explain the COCOMO model in project estimation with an example.	5	2	7
		CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS	

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4109]

IV B. Tech I Semester (R19) Regular Examinations

WEB SERVICES

COMPUTER SCIENCE & ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	What is DTD? Compare XSL with CSS.	1	2	8
	b).	Explain the Transformation of XML.	1	2	7
OR					
2.	a).	What is XML? Explain XML-based standards.	1	2	8
	b).	Explain the process of structuring with schemas in XML.	1	2	7
UNIT-II					
3.	a).	Draw and explain the web services technology stack with a neat diagram.	2	3	8
	b).	What are web services? Explain business and technical motivations for web services	2	2	7
OR					
4.	a).	Draw and explain service-oriented architecture.	2	3	8
	b).	Explain different architectural views with a neat diagram.	2	3	7
UNIT-III					
5.	a).	Write notes on SOAP protocol in detail.	3	2	8
	b).	Explain the web service inspection with an example.	3	2	7
OR					
6.	a).	Briefly explain Web Services Description Language.	3	2	8
	b).	List and write notes on how web services are secured with an example.	3	2	7
UNIT-IV					
7.	a).	List and explain the components of e-business XML systems.	4	2	8
	b).	Write a note on web services provided on mobile devices.	4	2	7
OR					
8.	a).	Explain the role of WAP in enabling corporate information.	4	2	8
	b).	What is B2B? List and explain different types of B2B interaction.	4	2	7
UNIT-V					
9.	a).	What is RDF? Explain briefly about it.	5	2	8
	b).	Explain about WSFL Flow models.	5	2	7
OR					
10.	a).	Explain briefly XLANG and WSFL.	5	2	8
	b).	Write notes on web content management.	5	2	7

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS

SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4110]

IV B. Tech I Semester (R19) Regular Examinations

CLOUD COMPUTING

COMPUTER SCIENCE & ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Illustrate in detail about Network centric computing.	1	2	7
	b).	Are Petri nets useful for Modelling concurrent systems?	1	3	8
OR					
2.	a).	List out & explain the different types of cloud computing service models.	1	3	8
	b).	Demonstrate the Message delivery rules with suitable example.	1	2	7
UNIT-II					
3.	a).	What are the cloud's challenges? How do you get over it?	2	2	8
	b).	Differences between HTC and HPC.	2	3	7
OR					
4.	a).	Explain the many architectural styles that are employed in cloud computing.	2	3	8
	b).	How to Build a Cloud Computing Infrastructure with Apache ZooKeeper.	2	2	7
UNIT-III					
5.	a).	Explain the relationship between virtualization and cloud computing.	3	2	8
	b).	Describe the case study of Xen in detail.	3	2	7
OR					
6.	a).	Demonstrate how to use the SFQ (start-time fair queuing) scheduling technique.	3	2	8
	b).	What role does dynamic resource execution play in cloud application auto-scaling?	3	2	7
UNIT-IV					
7.	a).	Explain how cloud-computing technology has evolved.	4	2	7
	b).	Describe the main features of Amazon Simple Storage Service S3.	4	2	8
OR					
8.	a).	Explain the security risks associated with cloud security.	4	2	8
	b).	Explain how virtualization can help you avoid security issues.	4	2	7
UNIT-V					
9.	a).	Demonstrate how S3 can be used in a cloud context.	5	2	7
	b).	Describe how to use a cloud service to broadcast adaptive data.	5	2	8
OR					

10.	a).	Explain how a distributed trust algorithm can be simulated on the cloud.	5	2	8
	b).	Explain how Microsoft Dynamics CRM may be used on the cloud.	5	2	7
		CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL		M-MARKS

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4111]

IV B. Tech I Semester (R19) Regular Examinations

MEAN STACK TECHNOLOGIES

COMPUTER SCIENCE & ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Explain about the Domain name service	1	3	7
	b).	Discuss in detail about the web protocols.	1	2	8
OR					
2.	a).	Explain about the Document object model in XML.	1	3	7
	b).	Explain about the Anatomy of a web page in CSS.	1	3	8
UNIT-II					
3.	a).	Explain in detail about Control Statements in java script.	2	3	8
	b).	Explain about the Pattern Matching using Regular Expressions.	2	3	7
OR					
4.	a).	Discuss Single Page Application development using AngularJS.	2	2	8
	b).	Explain about the AngularJS Form Validation	2	3	7
UNIT-III					
5.	a).	Describe in detail about the Node js Process Model	3	3	8
	b).	Discuss about Implementation of MVC in Express	3	3	7
OR					
6.	a).	Explain the Node js Process Modules with examples.	3	3	8
	b).	Illustrate the Security & Deployment in Node js.	3	3	7
UNIT-IV					
7.	a).	Write a brief discussion about Designing URIs.	4	3	7
	b).	Discuss the Obstacles and Roadblocks.	4	3	8
OR					
8.	a).	Describe the process of Working with the Files in React JS.	4	2	8
	b).	Brief discussion about Constructing Elements with Data.	4	2	7
UNIT-V					
9.	a).	Explain about the Mango DB Architecture.	5	3	7
	b).	Explain about the Web hosting & Domains.	5	3	8
OR					
10.	a).	Discuss about the Database Creation & Collection in Mongo DB.	5	2	7
	b).	Clear discussion of Deployment Using Cloud Platforms.	5	2	8

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks

SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4112]

IV B. Tech I Semester (R19) Regular Examinations

CYBER SECURITY & FORENSICS

COMPUTER SCIENCE & ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
21.	a).	Illustrate in detail about Cybercrime and Information Security.	1	2	8
	b).	Demonstrate about Proliferation of Mobile and Wireless Devices.	1	2	7
OR					
2.	a).	List out & explain the Classifications of Cybercrime.	1	2	7
	b).	Differentiate between Cybercafe and Cybercrimes.	1	2	8
UNIT-II					
3.	a).	Explain SQL Injection.	2	2	8
	b).	Describe Proxy Servers and Anonymizers, Phishing.	2	2	7
OR					
4.	a).	Explain Session Hijacking Buffer over flow, DoS and DDoS Attacks	2	2	8
	b).	Explain briefly Social Engineering, Port Scanning.	2	2	7
UNIT-III					
5.	a).	Explain Investigation Tools.	3	2	7
	b).	Compare E-Mail Tracking and IP Tracking.	3	2	8
OR					
6.	a).	Illustrate Encryption and Decryption Methods Case Study	3	3	7
	b).	Demonstrate Recovering Deleted Evidence and Password Cracking.	3	2	8
UNIT-IV					
7.	a).	Summarize Computer Forensics Software Tools.	4	2	8
	b).	Illustrate Validating and Testing Forensics Software	4	2	7
OR					
8.	a).	Compare Windows System Forensics, Linux System Forensics.	4	2	8
	b).	Demonstrate the Face, Iris and Fingerprint Recognition	4	2	7
UNIT-V					
9.	a).	Explain Cybercrime and the Legal Landscape around the World.	5	2	8
	b).	Explain Cybercrime and Punishment.	5	2	7
OR					
10.	a).	Compare Digital Signatures and the Indian IT Act, Amendments to the Indian IT Act.	5	2	8
	b).	Outline the Challenges to Indian Law and Cybercrime Scenario in India.	5	2	7

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-



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SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4113]

IV B. Tech I Semester (R19) Regular Examinations

**AD-HOC AND SENSOR NETWORKS
COMPUTER SCIENCE & ENGINEERING
MODEL QUESTION PAPER**

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Differentiate between cellular network and ad-hoc network?	1	3	7
	b).	What are factors that influence the routing in a MANET?	1	3	8
OR					
2.	a).	Explain Design Goals and Classifications of the MAC Protocols.	1	3	8
	b).	State any two applications of ad hoc networks.	1	3	7
UNIT-II					
3.	a).	What are the Major issues involved in Designing a Routing Protocol?	2	3	8
	b).	Difference between Topology-based versus Position-based Approaches?	2	3	7
OR					
4.	a).	How to design goals of a Transport layer protocol? What are main issues involved?	2	3	8
	b).	Describe the challenges of TCP over adhoc networks?	2	3	7
UNIT-III					
5.	a).	Outline the issues and challenges in security provisioning for wireless sensor networks?	3	3	7
	b).	Discuss Issues and Challenges in Security Provisioning in Network Security Attacks?	3	3	8
OR					
6.	a).	Elaborate Secure Routing in Ad hoc Wireless Networks?	3	3	8
	b).	Illustrate Intrusion Detection Systems?	3	3	7
UNIT-IV					
7.	a).	Describe Wireless Sensors and its Applications?	4	3	8
	b).	How to prevent Design issues in Wireless sensors?	4	3	7
OR					
8.	a).	Distinguish Networks-Classification of WSNs?	4	3	8
	b).	How to Adapting to the inherent dynamic nature of WSNs?	4	3	7
UNIT-V					
9.	a).	Explain Data aggregation strategies in WSN?	5	3	7
	b).	Illustrate Sensor Network Hardware-Components	5	3	8
OR					

10.		Explain shortly			
	a).	TinyGALS	5	2	4
	b).	TinyOS	5	2	4
	c).	Node-Level Simulators	5	2	4
	d).	TOSSIM	5	2	3
		CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS	

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19HS4201]

**IV B. Tech II Semester (R19) Regular Examinations
MANAGEMENT AND ORGANIZATIONAL BEHAVIOR**

**(Common to CSE & IT)
MODEL QUESTION PAPER**

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

		CO	KL	M
UNIT-I				
1.	Define Management and Explain its functions	1	2	15
OR				
2.	Explain the principles of Management as outlined by Henry Fayol	1	2	15
UNIT-II				
3.	Describe the functions performed by Human Resource Manager	2	2	15
OR				
4.	Define Marketing, Explain in detail about Marketing mix	2	3	15
UNIT-III				
5.	Explain about the importance of Mission, Goal, Objective and Strategy	3	2	15
OR				
6.	What do you understand by SWOT analysis? Explain how it can be carried out.	3	2	15
UNIT-IV				
7.	What is Organisational Change and describe about the types of change	4	2	15
OR				
8.	What is Motivation and Explain about Maslows Human Need Theory	4	2	15
UNIT-V				
9.	Explain about the consequences of conflicts in an organisation	5	2	15
OR				
10.	What is Stress & Describe about methods of managing Stress	5	2	15

CO-COURSE OUTCOME KL-KNOWLEDGE LEVEL M-MARKS

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks

SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4201]

IV B. Tech II Semester (R19) Regular Examinations

DEEP LEARNING

COMPUTER SCIENCE AND ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Distinguish supervised vs unsupervised learning	1	4	8
	b).	Explain about cross-validation	1	2	7
OR					
2.	a).	What is Dimensionality reduction? Explain	1	2	7
	b).	Explain about overfitting and under fitting	1	2	8
UNIT-II					
3.	a).	Illustrate Deep feed forward networks	2	2	8
	b).	Explain Gradient-Based Learning	2	2	7
OR					
4.	a).	Explain about Various Activation Functions	2	3	8
	b).	What is Regularization for Deep learning? Explain	2	2	7
UNIT-III					
5.	a).	Illustrate Convolutional Network	3	2	7
	b).	What is max pooling? Explain	3	2	8
OR					
6.	a).	Illustrate Recurrent Neural Networks	3	2	8
	b).	Explain about Long Short-Term Memory	3	2	7
UNIT-IV					
7.	a).	What are Auto encoders? Explain	4	2	7
	b).	Explain regularized & stochastic concepts?	4	2	8
OR					
8.	a).	What is denoising? Explain	4	2	7
	b).	What is Optimization for Deep Learning? Explain	4	2	8
UNIT-V					
9.	a).	Illustrate Alexnet architecture	5	2	8
	b).	Analyze how to improve performance of a model with Transfer learning	5	4	7
OR					
10.	a).	Illustrate ResNet architecture	5	2	7
	b).	Apply RNN for sentiment analysis	5	3	8

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS



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SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4202]

IV B. Tech II Semester (R19) Regular Examinations

QUANTUM COMPUTING

COMPUTER SCIENCE AND ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Discuss Quantum Measurements Density Matrices?	1	3	7
	b).	Explain Fragility of quantum information?	1	3	8
OR					
2.	a).	Describe Quantum Superposition and Entanglement?	1	3	8
	b).	Design Quantum Gates and Circuits?	1	3	7
UNIT-II					
3.	a).	Illustrate Quantum basic Principles?	2	3	8
	b).	Brief Discussion about Quantum Teleportation?	2	3	7
OR					
4.	a).	Describe Bell's inequality and its implications	2	3	8
	b).	How to analyze Quantum Algorithms & Circuits?	2	2	7
UNIT-III					
5.	a).	Differentiate Deutsch and Deutsch-Jozsa algorithms?	3	2	8
	b).	Explain Grover's Search Algorithm	3	2	7
OR					
6.	a).	Describe Quantum Fourier Transform?	3	3	7
	b).	Evaluate the Shore's Factorization Algorithm	3	2	8
UNIT-IV					
7.	a).	How to Implementing Quantum Computing?	4	3	7
	b).	Analyze the Performance, Security and Scalability in Quantum Computing?	4	3	8
OR					
8.	a).	Explain Quantum Cryptography?	4	3	7
	b).	Describe the prevention of Quantum Error Correction?	4	3	8
UNIT-V					
9.	a).	Discuss Quantum Computing Models?	5	3	7
	b).	Distinguish between Linear Optical MODEL and Nonlinear Optical Approaches	5	3	8

OR					
10.	a).	What are the major Limitations of Quatum model approaches?	5	3	7
	b).	Discuss the Future of Quantum computing.	5	3	8
CO-COURSE OUTCOME		KL-KNOWLEDGE LEVEL	M-MARKS		

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4203]

IV B. Tech II Semester (R19) Regular Examinations

BLOCK CHAIN TECHNOLOGIES

COMPUTER SCIENCE AND ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Differentiate Type of Players in Blockchain Ecosystem.	1	2	7
	b).	Explain the Stages in Blockchain Evolution.	1	2	8
OR					
2.	a).	Explain the Challenges Articulated, Blockchain.	1	2	7
	b).	Explain Stages in Blockchain Evolution.	1	2	8
UNIT-II					
3.	a).	What is a Merkle-Tree and Explain it with illustrating an Example	2	3	8
	b).	Explain the peer-to-peer network with an example.	2	2	7
OR					
4.	a).	Explain Currency aka tokens and data storage on blockchain	2	2	8
	b).	Explain life cycle of blockchain transaction.	2	2	7
UNIT-III					
5.	a).	Describe Blockchain Solutions Reference Architecture	3	3	8
	b).	Discuss Approach for Designing Blockchain Applications.	3	2	7
OR					
6.	a).	Explain Typical Solution Architecture for Enterprise Use Cases.	3	2	8
	b).	Describe Blockchain Relevance Evaluation Framework	3	2	7
UNIT-IV					
7.	a).	Describe Ethereum Development, Ethereum Tool Stack.	4	2	7
	b).	Discuss the Tuna Fish Use Case Implementation.	4	2	8
OR					
8.	a).	Discuss in detail about Truffle Framework, Ganache, Unit Testing,	4	2	8
	b).	Explain Ethereum Virtual Machine	4	2	7
UNIT-V					
9.	a).	Explain Hyperledger Fabric Transaction Flow.	5	2	7
	b).	Explain about Interplanetary File System (IPFS).	5	2	8
OR					
10.	a).	Explain Blockchain Cloud Offerings.	5	2	7
	b).	Describe how Blockchain technology is used in IoT/AI/ML	5	2	8

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS

SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4204]

IV B. Tech II Semester (R19) Regular Examinations

BIG DATA ANALYTICS

COMPUTER SCIENCE AND ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	What is Big data? Why we need to analyze Big data?	1	3	7
	b).	List out the major challenges in handling Big data?	1	3	8
OR					
2.	a).	Explain Analytic Processes and Tools?	1	3	8
	b).	Difference between Analyses vs. Reporting?	1	3	7
UNIT-II					
3.	a).	Describe Stream Data Model and Architecture?	2	3	8
	b).	Explain the Different Types of Stream Computing?	2	3	7
OR					
4.	a).	List and Explain Real time Analytics Platform (RTAP) Applications?	2	3	8
	b).	Discuss Real Time Sentiment Analysis with Example?	2	3	7
UNIT-III					
5.	a).	Highlight the features of Hadoop and Explain the functionalities of Hadoop Cluster?	3	2	8
	b).	Describe the Architecture of HDFS? Explain its Components?	3	2	7
OR					
6.	a).	Differentiate Mapper and Reducer and Driver codes?	3	2	7
	b).	Describe the Map Reduce execution steps with neat diagram	3	2	8
UNIT-IV					
7.	a).	Discuss the pig Latin data types and examples	4	2	7
	b).	Illustrate main features and Architecture of Hive with neat diagram	4	2	8
OR					
8.	a).	Explain Data processing operators in Pig	4	2	7
	b).	Details the fundamentals of HBase and ZooKeeper	4	2	8
UNIT-V					
9.	a).	Discuss Simple linear and Multiple linear regressions?	5	2	7
	b).	How to Predictive Data Analytics?	5	2	8

OR					
CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS			
10.	a).	Distinguish various data visualization applications?	5	2	7
	b).	List out the Data Visualizations techniques and explain briefly?	5	2	8

NOTE : Questions can be given as A,B splits or as a single Question for 15 marks



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)

[B19CS4205]

IV B. Tech II Semester (R19) Regular Examinations

DevOps

COMPUTER SCIENCE AND ENGINEERING

MODEL QUESTION PAPER

TIME: 3Hrs.

Max. Marks: 75 M

Answer **ONE Question** from **EACH UNIT**.

All questions carry equal marks.

			CO	KL	M
UNIT-I					
1.	a).	Discuss in detail about values of the agile software development model.	1	3	7
	b).	Explain about the phases of software development life cycle.	1	3	8
OR					
2.	a).	Explain about the principles of agile development model.	1	3	7
	b).	Explain about the History of the Agile Manifesto.	1	3	8
UNIT-II					
3.	a).	Explain the architecture of DevOps system.	2	3	8
	b).	Explain the deployment process in DevOps system.	2	3	7
OR					
4.	a).	Explain about DevOps delivery pipe line system.	2	3	8
	b).	Write the instance of DevOps applications.	2	3	7
UNIT-III					
5.	a).	Write about agiling capabilities in DevOps project implementation.	3	3	8
	b).	Discuss in detail about technology aspects in DevOps.	3	3	7
OR					
6.	a).	Explain about tools stack implementation in DevOps.	3	3	8
	b).	Explain the processes in project implementation.	3	3	7
UNIT-IV					
7.	a).	Explain about the continuous integration.	4	3	7
	b).	Explain the benefits of CI/CD.	4	3	8
OR					
8.	a).	Explain about Continuous delivery and deployment.	4	3	8
	b).	Write the metrics to track CICD practices.	4	3	7
UNIT-V					
9.	a).	Explain in detail about the maturity model.	5	2	7
	b).	Explain DevOps maturity assessment.	5	2	8
OR					
10.	a).	Explain the stages of DevOps maturity model.	5	2	7
	b).	Write about the key factors of DevOps maturity model.	5	2	8

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS



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