

IV B.Tech I Semester MODEL QUESTION PAPER

UNIVERSAL HUMAN VALUES-2: UNDERSTANDING HARMONY

(Common to AIDS, CSBS, CSE, IT & ME)

Time: 3 Hrs.

Max. Marks:70M

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

All questions carry equal marks

Assume suitable data if necessary

			CO	KL	M
		UNIT-I			
1	a).	Discuss natural acceptance	1	2	7
	b).	Differentiate prosperity and deprivation	1	2	7
		OR			
2	a).	Write a note on physical facilities	1	2	7
	b).	Deliberate the right understanding in perspective to self-exploration.	1	2	7
		UNIT-II			
3	a).	Illustrate coexistence of "I" and "Body".	2	2	7
	b).	Explain doer, seer and enjoyer.	2	2	7
		OR			
4	a).	Discuss Characteristic activities of Harmony with "I".	2	2	7
	b).	Explain Sanyam and Health.	2	2	7
		UNIT-III			
5	a).	Write a note on human-human relationship as regarding harmony.	3	2	7
	b).	Differentiate intention and competence.	3	2	7
		OR			
6	a).	Discuss salient values in relationship.	3	2	7
	b).	Illustrate universal Harmonious Society - an Undivided society.	3	2	7
		UNIT-IV			
7	a).	Discuss orders of life in nature and its significance self-regulation of individual	4	2	14
		OR			
8	a).	Illustrate existence of human being as coexistence with universe in perspective of space	4	2	14

UNIT-V					
CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS			
9	a).	Discuss importance of professional competence for augmenting universal human order.	5	3	14
OR					
10	a).	Case study of typical holistic technologies.	5	3	7
	b).	Role of engineer in promoting harmony in society	5	3	7

NOTE : Questions can be given as A,B splits or as a single Question for 14 marks



Course Code: B20CS4101					
SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)				R20	
IV B.Tech I Semester MODEL QUESTION PAPER					
CLOUD COMPUTING					
Computer Science & Engineering					
Time: 3 Hrs.			Max. Marks:70M		
Answer ONE Question from EACH UNIT					
All questions carry equal marks					
Assume suitable data if necessary					
			CO	KL	M
UNIT-I					
1	a).	List out & explain the different types of cloud computing service models.	1	2	7
	b).	Explain Cloud essential Characteristics	1	2	7
OR					
2	a).	Describe Cloud Computing Architecture	1	2	7
	b).	Explain Cloud deployment models	1	2	7
UNIT-II					
3	a).	Illustrate the relationship between virtualization and cloud computing.	2	3	7
	b).	Interpret How to Implement Levels of Virtualization	2	3	7
OR					
4	a).	Describe Virtualization Tools and Mechanisms.	2	2	7
	b).	Dramatize how Virtualization used in Data-Center Automation.	2	3	7
UNIT-III					
5	a).	Classify and demonstrate the Feedback on Dynamic Thresholds	3	3	7
	b).	Discriminate the Policies and Mechanisms for Resource Management	3	3	7
OR					
6	a).	Demonstrate the Resource Bundling	3	2	7
	b).	Contrast the Scheduling Algorithms for Computing Clouds	3	3	7
UNIT-IV					
7	a).	Demonstrate the storage models in Cloud Computing.	4	2	7
	b).	Explain Google file system with Diagram.	4	2	7
OR					
8	a).	Interpret the security risks associated with cloud security.	4	2	7
	b).	Explain how virtualization can help you avoid security issues	4	2	7

		UNIT-V			
9	a).	Illustrate the Map reduce Design in Hadoop.	5	3	7
	b).	Dramatize the Instance Programming on Amazon AWS.	5	3	7
		OR			
10	a).	Demonstrate the Federation levels in the Cloud	5	3	7
	b).	Interpret the Federated Services and Applications	5	3	7
		CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS	

NOTE : Questions can be given as A,B splits or as a single Question for 14 marks



Course Code: B20CS4102							
SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)					R20		
IV B.Tech I Semester MODEL QUESTION PAPER							
NEURAL NETWORKS AND SOFT COMPUTING							
Computer Science & Engineering							
Time: 3 Hrs.			Max. Marks:70				
Answer ONE Question from EACH UNIT							
All questions carry equal marks							
Assume suitable data if necessary							
					CO	KL	M
UNIT-I							
1	a).	List out and explain various types of soft computing techniques.	1	2	7		
	b).	Define and explain the meaning of the term “Artificial Intelligence”?	1	2	7		
OR							
2	a).	Define soft computing. Distinguish between soft computing and hard computing.	1	2	7		
	b).	Explain the rules of inference in AI.	1	2	7		
UNIT-II							
3	a).	Explain with neat diagram supervised and unsupervised learning in Neural Networks.	2	2	7		
	b).	“Neuron inhibition depends on activation function” Justify this statement with different types of activation functions.	2	2	7		
OR							
4	a).	Explain the taxonomy of artificial neural network architectures.	2	2	7		
	b).	Define and explain perceptron in detail with a neat sketch.	2	2	7		
UNIT-III							
5	a).	Explain the Membership function, fuzzy set, and fuzzy if-then Rules.	3	2	7		
	b).	Explain Fuzzy Logic, fuzzy set. Briefly.	3	2	7		
OR							
6	a).	Define Fuzzification and Defuzzification in fuzzy logic system components.	3	2	4		
	b).	Differentiate Fuzzification and Defuzzification.	3	2	10		
UNIT-IV							
7	a).	Explain Genetic Algorithm in term of individual, gene, fitness, population, encoding, selection, crossover, mutation?	4	2	7		

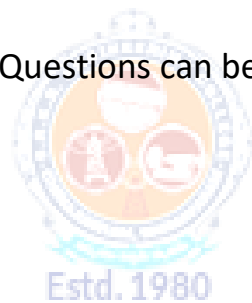
	b).	Explain Genetic algorithm in terms of Reproduction, Selection, Evaluation and Replacement.	4	2	7
		OR			
8	a).	How Genetic Algorithm is different from traditional algorithms? Explain.	4	2	7
	b).	Discuss Crossover operation in GA and its types?	4	2	7
		UNIT-V			
9	a).	Explain the Fuzzy back propagation network with a neat diagram.	5	2	7
	b).	Explain the Adaptive neuro fuzzy inference systems.	5	2	7
		OR			
10	a).	Explain the following terms (a) Cooperative Neural Fuzzy Systems (b) General Neuro Fuzzy Hybrid Systems	5	2	7
	b).	Explain the Genetic-fuzzy hybrid systems in detail.	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 14 marks



IV B.Tech I Semester MODEL QUESTION PAPER

AD-HOC AND SENSOR NETWORKS

Computer Science & Engineering

Time: 3 Hrs.

Max. Marks:70

Answer ONE Question from EACH UNIT

All questions carry equal marks

Assume suitable data if necessary

			CO	KL	M
UNIT-I					
1	a).	List the characteristics of adhoc wireless network.	1	2	7
	b).	Differentiate between cellular network and adhoc Network.	1	2	7
OR					
2	a).	What are the challenging issues in MANETs?	1	2	7
	b).	List the applications of MANETs.	1	2	7
UNIT-II					
3	a).	Discuss about the design goals of MAC protocol for adhoc networks.	2	2	7
	b).	Classify and explain adhoc wireless network based on routing topology.	2	2	7
OR					
4	a).	Explain the major challenges that a routing protocol designed for adhoc wireless networks face.	2	2	7
	b).	Classification of Transport Layer Protocols.	2	2	7
UNIT-III					
5	a).	What is energy efficient routing? Present an outline of energy efficient routing in wireless sensor networks.	3	3	7
	b).	Outline the issues and challenges in security provisioning for wireless sensor networks.	3	3	7
OR					
6	a).	Define a black hole attack and discuss its possible solutions.	3	3	7
	b).	Define a Data Tampering and discuss its possible solutions.	3	3	7
UNIT-IV					
7		Illustrate the challenges and the required mechanisms of a Wireless Sensor network.	4	3	14
OR					

8		Interpret a suitable routing technique more suitable for WSN. Narrate the reasons for it	4	3	14
		UNIT-V			
9	a).	Outline the features of Tiny OS for wireless sensor networks.	5	3	7
	b).	Present a wireless sensor network design that can be used for surveillance and environment monitoring in a zoo. A zoo is a facility in which animals are confined within enclosures, displayed to the public, and in which they may also be bred. State the functional requirements you are considering.	5	3	7
		OR			
10	a).	Outline the features of node-level simulators for wireless sensor networks.	5	3	7
	b).	Convert the following C code to NS2: in t a, b, c; a=5; b=6; c= a +b.	5	3	7

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS

NOTE : Questions can be given as A,B splits or as a single Question for 14 marks



Course Code: B20CS4104					
SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)					R20
IV B.Tech I Semester MODEL QUESTION PAPER					
CYBER SECURITY & FORENSICS					
Computer Science & Engineering					
Time: 3 Hrs.			Max. Marks:70		
Answer ONE Question from EACH UNIT					
All questions carry equal marks					
Assume suitable data if necessary					
			CO	KL	M
UNIT-I					
1	a).	Who are Cyber Criminals? Explain the different categories of Cyber Criminals	1	2	7
	b).	Explain the Security Challenges Posed by Mobile Devices	1	2	7
OR					
2	a).	Write a short note on i) Cybercafé ii) Cyber stalking	1	2	7
	b).	Define attack and explain it in detail along with an example	1	2	7
UNIT-II					
3	a).	Explain Distributed Denial of service (DDOS) Attack in detail	2	2	7
	b).	Explain about password cracking mechanism in detail	2	2	7
OR					
4	a).	List and explain various attacks on wireless networks.	2	2	7
	b).	What kinds of attacks are possible on mobile/cell phones? Explain with example	2	2	7
UNIT-III					
5	a).	Briefly Explain the generalize the roles of E-mail in investigation	3	2	7
	b).	Write a short notes on the Digital Evidence Collection, Evidence Preservation	3	2	7
OR					
6	a).	Demonstrate detailed about using specialized E-mail Forensics Tools	3	3	14
UNIT-IV					
7	a).	Analyze briefly about the Forensic Duplication and Investigation	4	4	14
OR					
8	a).	Analyze traditional Computer crimes associated with Cyber Forensics.	4	4	14

UNIT-V					
9	a).	Explain about jurisdiction in cyberspace	5	2	7
	b).	Explain about the weakness in information Technology Act in Cyber Crime Legal.	5	2	7
OR					
10	a).	Illustrate the Amendments to the Indian IT Act?	5	3	7
	b).	Explain the Challenges to Indian Law and Cybercrime Scenario in India	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 14 marks



Course Code: B20CS4105					
SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)				R20	
IV B.Tech I Semester MODEL QUESTION PAPER					
DEEP LEARNING TECHNIQUES					
Computer Science & Engineering					
Time: 3 Hrs.			Max. Marks:70		
Answer ONE Question from EACH UNIT					
All questions carry equal marks					
Assume suitable data if necessary					
			CO	KL	M
UNIT-I					
1	a).	Distinguish supervised vs unsupervised learning	1	2	7
	b).	Explain about cross-validation	1	2	7
OR					
2	a).	What is Dimensionality reduction? Explain	1	2	7
	b).	Explain about over fitting and under fitting	1	2	7
UNIT-II					
3	a).	Illustrate Deep feed forward networks	2	2	7
	b).	Explain about early stopping	2	2	7
OR					
4	a).	Explain about Various Activation Functions	2	3	7
	b).	What is Regularization for Deep learning? Explain Drop out	2	2	7
UNIT-III					
5	a).	Illustrate Convolutional Network	3	2	7
	b).	What is max pooling? Explain	3	2	7
OR					
6	a).	Illustrate Recurrent Neural Networks	3	2	7
	b).	Explain about Long Short-Term Memory	3	2	7
UNIT-IV					
7	a).	What are Auto encoders? Explain	4	2	7
	b).	Explain about stochastic gradient descent	4	2	7
OR					
8	a).	What is de noising? Explain	4	2	7
	b).	What is Optimization for Deep Learning? Explain Adam	4	2	7

UNIT-V					
9	a).	Illustrate Alex net architecture	5	2	7
	b).	Analyze how to improve performance of a model with Transfer learning	5	3	7
OR					
10	a).	Illustrate Res Net architecture	5	2	7
	b).	Write about Deep Generative Models	5	3	7
CO-COURSE OUTCOME		KL-KNOWLEDGE LEVEL	M-MARKS		

NOTE : Questions can be given as A,B splits or as a single Question for 14 marks



Course Code: B20CS4106					
SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)					R20
IV B.Tech I Semester MODEL QUESTION PAPER					
SOCIAL NETWORKS & SEMANTIC WEB					
Computer Science & Engineering					
Time: 3 Hrs.			Max. Marks:70		
Answer ONE Question from EACH UNIT					
All questions carry equal marks					
Assume suitable data if necessary					
			CO	KL	M
UNIT-I					
1	a).	Explain in detail about Thinking and Intelligent Web Applications	1	3	7
	b).	What is Semantic Web? Explain with an example.	1	3	7
OR					
2	a).	Discuss in detail about the Berners-Lee www.	1	3	7
	b).	Explain clearly the concept of Logic on the semantic Web.	1	3	7
UNIT-II					
3	a).	Explain Ontologies and their role in the semantic web.	2	3	7
	b).	Analyze Resource Description Framework	2	3	7
OR					
4	a).	Classify the Ontology Web Language	2	3	7
	b).	Discuss in detail about the XML Schema	2	3	7
UNIT-III					
5	a).	Illustrate Ontology Development Tools	3	3	7
	b).	Develop the Ontology Methods	3	3	7
OR					
6	a).	Develop the Ontology Libraries and Ontology Mapping	3	3	7
	b).	Explain in detail about Constructing Ontology	3	3	7
UNIT-IV					
7	a).	Contrast Semantic Web applications and services	4	3	7
	b).	Examine the Creating an OWL-S Ontology for Web Services	4	3	7
OR					
8	a).	Examine the Semantic Bioinformatics	4	3	7
	b).	Distinguish Web Search Agents and Semantic Methods	4	3	7

		UNIT-V			
9	a).	Explain development of the social networks analysis	5	3	7
	b).	Illustrate Blogs and Online Communities	5	2	7
		OR			
10	a).	Outline the Electronic Sources for Network Analysis	5	2	7
	b).	Explain Building Semantic Web Applications with social network features.	5	3	7
		CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS	

NOTE : Questions can be given as A,B splits or as a single Question for 14 marks



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Course Code: B20CS4107					
SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)					R20
IV B.Tech I Semester MODEL QUESTION PAPER					
COMPUTER VISION					
Computer Science & Engineering					
Time: 3 Hrs.			Max. Marks:70		
Answer ONE Question from EACH UNIT					
All questions carry equal marks					
Assume suitable data if necessary					
			CO	KL	M
UNIT-I					
1	a).	Explain Geometric Primitives and Transformation	1	2	7
	b).	Discuss about Fourier Transforms	1	2	7
OR					
2	a).	Illustrate Pyramids and Wavelets	1	2	7
	b).	Explain Photometric Image Formation	1	2	7
UNIT-II					
3	a).	Demonstrate Split and Merge	2	2	7
	b).	Classify 2D and 3D Feature-based Alignment	2	2	7
OR					
4	a).	Discuss about Mean Shift and Mode Finding	2	2	7
	b).	Explain Geometric Intrinsic Calibration	2	2	7
UNIT-III					
5	a).	Demonstrate the Two-frame Structure from Motion	3	2	7
	b).	Describe the Geometric Intrinsic Calibration	3	2	7
OR					
6	a).	Outline the Constrained Structure and Motion	3	2	7
	b).	Discuss about Normalized Cuts	3	2	7
UNIT-IV					
7	a).	Explain Two-frame Structure from Motion	4	2	7
	b).	Discuss the Parametric Motion	4	2	7
OR					
8	a).	Demonstrate Constrained Structure and Motion	4	2	7
	b).	Illustrate the Spline-based Motion	4	2	7

		UNIT-V			
9	a).	Outline the Point based Representation	5	3	7
	b).	Construct the Active Range Finding	5	3	7
		OR			
10	a).	Discuss the Video-based Rendering	5	3	7
	b).	Develop the Model-based Reconstruction	5	3	7
		CO-COURSE OUTCOME	KL-KNOWLEDGE LEVEL	M-MARKS	

NOTE : Questions can be given as A,B splits or as a single Question for 14 marks



IV B.Tech I Semester MODEL QUESTION PAPER

BLOCK CHAIN TECHNOLOGIES

Computer Science & Engineering

Time: 3 Hrs.

Max. Marks:70

Answer ONE Question from EACH UNIT

All questions carry equal marks

Assume suitable data if necessary

			CO	KL	M
UNIT-I					
1	a).	Differentiate Trust Currency and Crypto currency.	1	2	7
	b).	Explain how the landscape of digitalization was changing.	1	2	7
OR					
2	a).	Explain the Challenges Articulated, Block chain.	1	2	7
	b).	Explain Stages in Block chain Evolution.	1	2	7
UNIT-II					
3	a).	What is a Hashing and Explain it with illustrating an Example	2	3	7
	b).	Explain the Digital Identity Verification with an example.	2	2	7
OR					
4	a).	Explain Public key cryptosystems.	2	2	7
	b).	Explain Block chain Neutrality.	2	2	7
UNIT-III					
5	a).	Describe Bit coin Block chain and scripts.	3	3	7
	b).	Discuss Approach for Block chain Genomics.	3	2	7
OR					
6	a).	Explain Use cases of Bit coin Block chain scripting language in micropayment.	3	2	7
	b).	Describe Block chain Digital Identity verification	3	2	7
UNIT-IV					
7	a).	Describe Currency Multiplicity, Demurrage currency.	4	2	7
	b).	Discuss the Byzantine Generals Problem.	4	2	7
OR					
8	a).	Discuss in detail about Consensus as a distributed coordination problem.	4	2	7

	b).	Explain IOTA.	4	2	7
		UNIT-V			
9	a).	Explain Scandals and Public perception.	5	2	7
	b).	Explain about Uses of Block chain in E-Governance.	5	2	7
		OR			
10	a).	Explain Block chain technical challenges.	5	2	7
	b).	Describe how Block chain technology is used in Land Registration	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 14 marks



IV B.Tech I Semester MODEL QUESTION PAPER

WIRELESS NETWORK SECURITY

Computer Science & Engineering

Time: 3 Hrs.

Max. Marks:70

Answer ONE Question from EACH UNIT

All questions carry equal marks

Assume suitable data if necessary

			CO	KL	M
		UNIT-I			
1	a).	What are some of the historical wireless technologies that were commonly used before the introduction of modern wireless systems?	1	2	7
	b).	How has the wireless security industry evolved over the years to address new and emerging threats?	1	2	7
		OR			
2	a).	What is a man-in-the-middle (MITM) attack, and how can it be carried out on wireless networks?	1	2	7
	b).	What types of equipment can attackers use to compromise wireless networks, and how can organizations protect themselves from such attacks?	1	2	7
		UNIT-II			
3	a).	Analyze the most common man-in-the-middle (MITM) attacks used against wireless networks and recommend preventative measures that organizations can take	2	3	7
	b).	Explain how man-in-the-middle (MITM) attacks work on SSL/TLS and SSH and assess the effectiveness of various prevention measures that organizations can implement.	2	3	7
		OR			
4	a).	Evaluate the tools and techniques used by attackers to compromise wireless networks and recommend defense strategies that organizations can implement,	2	3	7
	b).	Analyze the potential risks associated with wireless LANs and propose a comprehensive security plan to mitigate these risks.	2	3	7
		UNIT-III			
5	a).	What are some of the key security considerations for wireless devices, and how can organizations mitigate the risks associated with wireless device use?	3	2	7

	b).	What is application security, and how can organizations ensure that the applications running on their wireless devices are secure?	3	2	7
		OR			
6	a).	Evaluate the security risks that laptops pose to organizations, and design preventive measures to safeguard against these risks.	3	2	7
	b).	How does spread spectrum technology enhance wireless network security?	3	2	7
		UNIT-IV			
7	a).	Assess the effectiveness of Mobitex for wireless data communications, justify the need for ongoing Mobitex network development and improvement	4	3	10
	b).	What are some of the key security features of the Mobitex security architecture, and how do they work to protect against security threats?	4	2	4
		OR			
8	a).	Explain the differences between wireless data networks and traditional wired networks, and how Cellular Digital Packet Data (CDPD) operates as a wireless data network technology?	4	3	8
	b).	What is the CDPD architecture, analyze how it supports wireless data networks.	4	3	6
		UNIT-V			
9	a).	list types of wireless LANs and identify security considerations for wireless networks	5	3	14
		OR			
10	a).	Differentiate between wireless and wired network applications, categorize industries that commonly use wireless networks	5	3	14

CO-COURSE OUTCOME

KL-KNOWLEDGE LEVEL

M-MARKS

NOTE : Questions can be given as A,B splits or as a single Question for 14 marks

Course Code: B20CS4111					
SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (A)					R20
IV B.Tech I Semester MODEL QUESTION PAPER					
INTERNET OF THINGS					
Computer Science & Engineering					
Time: 3 Hrs.			Max. Marks:70		
Answer ONE Question from EACH UNIT					
All questions carry equal marks					
Assume suitable data if necessary					
			CO	KL	M
UNIT-I					
1	a).	Explain the Characteristics of Internet of Things.	1	2	7
	b).	Describe in detail about the IoT levels .	1	2	7
OR					
2	a).	Explain in detail about the drivers behind new network Architectures.	1	2	7
	b).	Discuss in detail about the logical design of IoT.	1	2	7
UNIT-II					
3	a).	Define in detail about 6LoWPAN technology.	2	2	7
	b).	Explain the constrained application protocol (CoAP).	2	2	7
OR					
4	a).	Detailed discussion about Bluetooth Low Energy.	2	2	7
	b).	Explain in detail about MQTT communication technology.	2	2	7
UNIT-III					
5	a).	Explain about Basic building blocks of an IOT device.	3	2	7
	b).	Describe in detailed about Components of Arduino board.	3	2	7
OR					
6	a).	Explain in details about radio Frequency Identification technology.	3	2	7
	b).	Write a program for Arduino interface for Temperature dependent Auto cooling system.	3	2	7
UNIT-IV					
7	a).	Explain about Data Acquiring and storage.	4	2	7
	b).	Describe in detailed about Integration and Enterprise Systems.	4	2	7
OR					
8	a).	Describe about the Transaction and Business Processes.	4	2	7

	b).	Explain about Managing and Storing Processes.	4	2	7
		UNIT-V			
9	a).	Explain the IoT Security Tomography and Layered Attacker model.	5	2	7
	b).	Illustrate in details about case study of smart irrigation system.	5	2	7
		OR			
10	a).	Explain about the Access control secure message communication.	5	2	7
	b).	Illustrate about Home intrusion detection.	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 14 marks

