

## Model Question Paper-1 with effect from 2019-20 (CBCS Scheme)

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### Seventh Semester B.E. Degree Examination Blockchain Technology

TIME: 03 Hours

Max. Marks: 100

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module – 1			
<b>Q.1</b>	(a)	Explain the benefits and limitations of blockchain technology.	<b>10M</b>
	(b)	With a neat diagram explain the generic structure of a block	<b>10M</b>
<b>OR</b>			
<b>Q.2</b>	(a)	Explain how blockchain accumulates blocks.	<b>10M</b>
	(b)	Discuss Byzantine Generals problem.	<b>10M</b>
<b>Module – 2</b>			
<b>Q.3</b>	(a)	Discuss the requirements and operations of a Decentralized application.	<b>10M</b>
	(b)	Write an algorithm for working of SHA-256.	<b>10M</b>
<b>OR</b>			
<b>Q.4</b>	(a)	Explain the steps involved in RSA key pair generation	<b>10M</b>
	(b)	Illustrate with a diagram Point addition in Elliptic Curve Cryptography.	<b>10M</b>
<b>Module – 3</b>			
<b>Q.5</b>	(a)	Explain transaction lifecycle In a bitcoin system	<b>10M</b>
	(b)	Explain the different types of transactions	<b>10M</b>
<b>OR</b>			
<b>Q.6</b>	(a)	How merged mining is performed in Namecoin? Illustrate with a diagram.	<b>10M</b>
	(b)	Illustrate Script algorithm with a neat diagram defining all the parameters to generate a derived key in a Litecoin	<b>10 M</b>
<b>Module – 4</b>			
<b>Q.7</b>	(a)	What are the two types of accounts that exist in Ethereum. Explain.	<b>10M</b>
	(b)	With a neat bowtie model diagram explain Ricardian contracts .	<b>10M</b>
<b>OR</b>			
<b>Q.8</b>	(a)	Explain any five standard fields in Ethereum transactions	<b>10M</b>
	(b)	Write short note on Ethereum Virtual Machine.	<b>10M</b>
<b>Module – 5</b>			
<b>Q.9</b>	(a)	How Consensus mechanism is achieved in Kadena? Explain the process with a diagram.	<b>10M</b>
	(b)	Explain Eris platform.	<b>10M</b>
<b>OR</b>			
<b>Q.10</b>	(a)	Explain blockchain based IoT model.	<b>10M</b>
	(b)	Explain automated border control application using blockchain.	<b>10M</b>

Table showing the Bloom's Taxonomy Level, Course Outcome and Programme Outcome				
Question		Bloom's Taxonomy Level attached	Course Outcome	Programme Outcome
Q.1	(a)	L1	CO1	PO1
	(b)	L1	CO2	PO1
Q.2	(a)	L2	CO2	PO2
	(b)	L3	CO2	PO2
Q.3	(a)	L3	CO3	PO3
	(b)	L4	CO2	PO3
Q.4	(a)	L2	CO1	PO3
	(b)	L2	CO2	PO3
Q.5	(a)	L2	CO2	PO3
	(b)	L2	CO2	PO4
Q.6	(a)	L1	CO3	PO5
	(b)	L2	CO2	PO6
Q.7	(a)	L4	CO2	PO9
	(b)	L2	CO3	PO12
Q.8	(a)	L3	CO2	PO6
	(b)	L4	CO2	PO9
Q.9	(a)	L3	CO2	PO9
	(b)	L3	CO3	PO4
Q.10	(a)	L3	CO3	PO5
	(b)	L3	CO3	PO12
Bloom's Taxonomy Levels	<b>Lower order thinking skills</b>			
	Remembering( knowledge): <i>L</i> <sub>1</sub>	Understanding Comprehension): <i>L</i> <sub>2</sub>	Applying (Application): <i>L</i> <sub>3</sub>	
	<b>Higher order thinking skills</b>			
	Analyzing (Analysis): <i>L</i> <sub>4</sub>	Valuating (Evaluation): <i>L</i> <sub>5</sub>	Creating (Synthesis): <i>L</i> <sub>6</sub>	

