Register Number:……..

KUMARAGURU
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B.E DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Seventh Semester

COMPUTER SCIENCE AND ENGINEERING

U18CSE0012: Blockchain Technology and Applications

COURSE OUTCOMES

CO1: Understand emerging abstract models for Blockchain Technology.
CO2: Discover the secure and efficient transactions with crypto-currencies.
CO3: Experiment with cryptocurrency trading and crypto exchanges.
CO4: Develop private blockchain environment and develop a smart contract on ethereum.
CO5: Build the hyperledger architecture and the consensus mechanism applied in the hyperledger.

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	Summarize any four Open Source blockchains.	CO1	[K_2]
2.	Compare the features of blockchain with database.	CO1	[K_2]
3.	How crypto scams occur?	CO2	[K_1]
4.	What is meant by Hash Function?	CO2	[K_1]
5.	List the applications of Bitcoin Scripts.	CO3	[K_1]
6.	Enumerate on the challenges and solutions of Bitcoin blockchain.	CO3	[K_2]
7.	Why are the Smart Contracts used?	CO4	[K_2]
8.	Infer the limitations & show the improvements, made in Bitcoin Network.	CO4	[K_2]
9.	What is the significance of Hash graph?	CO5	[K_1]
10.	List the components of Hyperledger Fabric Technology.	CO5	[K_1]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Compare (i) Centralized Registries vs. Distributed Ledgers, (ii) Public vs. Private Ledgers	8	CO1	[K_2]
	b)	Discuss the functioning of a permissioned and permission-less Blockchain.	8	CO1	[K_2]
12.	a)	Enumerate the regulations on Crypto currencies & exchanges.	8	CO2	[K_2]
	b)	Show the steps for generation of Digital Signature for authenticating.	8	CO2	[K_2]
13.	a)	Explain the terms: Hot Storage and Cold Storage.	8	CO3	[K_2]
	b)	Show how do you to store and use Bitcoins in a Bitcoin Network.	8	CO3	[K_2]
14.	a)	How is the processing and deploying of smart contracts done in Remix IDE?	8	CO4	[K_2]
	b)	How do you develop a smart contract on a private Blockchain?	8	CO4	[K_2]
15.		Show how you model a Blockchain application using the Composer modelling language.	16	CO5	[K_2]
16.		Explain the development of a Hyperledger Blockchain application using Composer Framework.	16	CO5	[K_2]

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