MSE - October 2023

Course Code: OEIT1
Name of the Course: <u>Blockchain Technology and Applications</u>
Max. Marks: 30 Duration: 60 Min.
Branch: All

BE-VII Com/IT

Instructions:
1) All questions are compulsory.
2) Draw neat diagrams.
3) Assume suitable data if necessary but justify the same.

Q. No.	Question	Max. Marks	COs	BL
Q. 1 (a)	Compare and contrast the foundational principles of blockchain technology with traditional centralized systems. Analyze the advantages and disadvantages of each approach, and provide examples of real-world applications where blockchain has demonstrated superiority over centralized systems.	06	CO1	4
Q. 1 (b)	Given a specific use case, apply the Blockchain Applicability Framework to evaluate whether blockchain technology is suitable for that scenario. Demonstrate the ability to use the framework to make informed decisions about the applicability of blockchain in various real-world situations. **OR** Imagine you are a blockchain developer tasked with explaining the various types of nodes in the Bitcoin network to a group of beginners. Provide practical examples of how different types of nodes contribute to the functioning of the network. Describe their specific roles and responsibilities in maintaining the integrity of the blockchain.	09	CO1	3
Q. 2 (a)	Evaluate the impact of gas fees on the Ethereum network. How do gas fees influence user behavior and the overall network performance?	06	CO2	4
Q. 2 (b)	Given a hypothetical scenario where a user wants to use their NFT as collateral to borrow cryptocurrency in a DeFi platform, apply your knowledge to describe how this process could work. Highlight the benefits and potential risks of using NFTs as collateral.	09	CO2	3