UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2021

Course: Blockchain Basics **Semester: V**
Program: B. Tech (APE-UP, APE-Gas, Electrical) **Time : 03 hrs.**
Course Code: MRBL0203 **Max. Marks: 100**

SECTION A
(Scan and Upload) **(5Q x 4M =20 Marks)**

S. No.		Marks	CO
Q. 1	Explain the use of Markle tree.	**4 M**	**CO1**
Q. 2	Describe the term Block in Blockchain and how is it recognized?	**4 M**	**CO1**
Q. 3	Smart contract is a key concept in Blockchain technology, explain.	**4 M**	**CO2**
Q. 4	Explain the requirement of Decentralized Application (DApp).	**4 M**	**CO3**
Q. 5	Compare Blockchain and Hyperledger.	**4 M**	**CO4**
	SECTION B **(Scan and Upload)** **(4Q x 10M =40 Marks)**		
Q. 6	a. Compare traditional contract and smart contract with suitable example. (OR) b. Write a solidity code for developing Ballot smart contracts.	**10 M**	**CO2**
Q. 7	Ethereum Virtual Machine is required for Ethereum Blockchain. Justify.	**10 M**	**CO2**
Q. 8	Explain Microsoft Azure Blockchain technology working.	**10 M**	**CO4**
Q. 9	Illustrate the use of permissioned Blockchain.	**10 M**	**CO4**
	SECTION-C **(Scan and Upload)** **(2Q x 20M =40 Marks)**		
Q. 10	a. Write a solidity code for creating a function for find out the sum of two numbers. b. Write a solidity code for creating contract of your choice.	**20 M**	**CO3**
Q. 11	a. Compare different type of Consensus protocol with suitable example. b. Blockchain technology is a secure technology for a business. Justify. (OR) c. Compare different types of Blockchain with suitable example. **d.** Differentiate between Bitcoin blockchain and Ethereum.	**20 M**	**CO1**