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**PRESIDENCY UNIVERSITY  
BENGALURU**

**SET A**

**SCHOOL OF ENGINEERING  
END TERM EXAMINATION - JAN 2024**

**Semester :** Semester V - 2021

**Course Code :** CSE2019

**Course Name :** Foundations of Blockchain Technology

**Program :** B.Tech.

**Date :** 08-JAN-2024

**Time :** 9:30AM - 12:30 PM

**Max Marks :** 100

**Weightage :** 50%

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**Instructions:**

- (i) Read all questions carefully and answer accordingly.
  - (ii) Question paper consists of 3 parts.
  - (iii) Scientific and non-programmable calculator are permitted.
  - (iv) Do not write any information on the question paper other than Roll Number.
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**PART A**

**ANSWER ALL THE QUESTIONS**

**4 X 5M = 20M**

1. Describe Blockchain and Its Types. (CO1) [Knowledge]
2. Explain consensus algorithm and write any example? (CO2) [Knowledge]
3. Write a Short note on (i) Cryptocurrency and (ii) Smart Contracts (CO3) [Knowledge]
4. Discuss and compare between Ethereum and Bitcoin (CO4) [Knowledge]

**PART B**

**ANSWER ALL THE QUESTIONS**

**5 X 10M = 50M**

5. Define hash function and discuss the role of hash pointers in blockchain. (CO1) [Comprehension]
6. Joe is interested in understanding the Bitcoin mining process and the role of miners in the mining process. Can you explain in detail about that so that Joe can easily understand the process? (CO2) [Comprehension]

7. Summarize the Bitcoin Transactions with a neat sketch.  
(CO3) [Comprehension]
8. Jose is interested in developing dApp applications using Ethereum. Can you provide her with components of the Ethereum Ecosystem with suitable diagram?  
(CO4) [Comprehension]
9. The university is exploring a suitable type of blockchain network for storing the students' data. Can you provide insights and comparisons of different types of blockchain for selecting the suitable type.  
(CO1,CO4,CO3,CO2) [Comprehension]

### **PART C**

**ANSWER ALL THE QUESTIONS**

**2 X 15M = 30M**

10. **Alice wants to explore blockchain technology. Can you provide a simple yet insightful explanation of blockchain technology and Terms.**  
(CO2,CO1) [Application]
11. Articulate the Ethereum wallet and types of address in detail.  
(CO4,CO3) [Application]