

E(COMP) / SEM VII / B.C / R-19 - Cscheme 11/06/25.

(3 Hours)

(Total Marks: 80)

- N.B.: 1. Question No. 1 is compulsory.
2. Answer any three out of the remaining questions.
3. Assume suitable data if necessary.
4. Figures to the right indicate full marks.



- Q1. Attempt the following (any 4):** (20)
- a. Explain the concept of an orphaned block.
 - b. Write a program in solidity to check whether the number is prime or not.
 - c. Explain the concept of double spending with a suitable example.
 - d. Differentiate between hot wallet and cold wallet.
 - e. Explain mining pool and its difficulty.
- Q2. Attempt the following:**
- a. State and explain different types of cryptocurrencies. (10)
 - b. Explain Hyperledger Fabric v1 Architecture. (10)
- Q3. Attempt the following:**
- a. Write a program in solidity to implement multi-level inheritance. (10)
 - b. Describe the architecture of Ethereum. (10)
- Q4. Attempt the following:**
- a. Differentiate between PoW, PoS, PoB & PoET. (10)
 - b. Explain Fallback function in Solidity with an example. (10)
- Q5. Attempt the following:**
- a. Differentiate between public, private and consortium blockchain. (10)
 - b. Explain types of test network (10)
- Q6. Write short notes on (any 2):** (20)
- a. Ethereum Virtual Machine
 - b. RAFT consensus algorithm
 - c. Ripple
 - d. UTXO model of Bitcoin

Q. P. Code :-
83709

Program Code:
1T00737