

Roll Number: \_\_\_\_\_

Name: \_\_\_\_\_



**Thapar Institute of Engineering & Technology, Patiala**  
**(Deemed to be University)**

**Department of Electronics & Communication Engineering**

**MST- Written Test**

**BE- ECE**

**Date- September 30, 2022**

**Time: 02 Hours**

**~~UCS754~~ / UEC635: Blockchain Technology**

**Name of Faculty: Dr. Shashikant,  
Dr .Chandramohan**

**NOTE: \* Attempt all five questions**

**\*\* Assume any missing information.**

- |            |                                                                                                 |          |
|------------|-------------------------------------------------------------------------------------------------|----------|
| <b>Q1.</b> | a. Illustrate the basics of the blockchain and describe its features.                           | <b>5</b> |
|            | b. Justify the issues and problems in traditional transaction system.                           | <b>2</b> |
| <b>Q2.</b> | Demonstrate the types of blockchain in detail.                                                  | <b>7</b> |
| <b>Q3.</b> | a. Justify the need for hyperledger, and distributed ledger with an appropriate illustration.   | <b>4</b> |
|            | b. Discuss the advantage and disadvantages of the distributed ledger.                           | <b>3</b> |
| <b>Q4.</b> | a. Demonstrate the use of digital currency/cryptocurrency and name any five digital currencies. | <b>3</b> |
|            | b. Illustrate the Bitcoin lifecycle with necessary description.                                 | <b>4</b> |
| <b>Q5.</b> | a. Illustrate the Proof of Work (PoW) consensus mechanism with appropriate workflow.            | <b>3</b> |
|            | b. Demonstrate how a task gets completed using a Smart contract. Illustrate with an example.    | <b>4</b> |

\*\*\*\*\* All the Best \*\*\*\*\*