

## ISE CERTIFICATION COURSE DETAILS

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COURSE NAME:	BLOCKCHAIN BASICS	DATE:	28-05-2020

### SCREENSHOT:

The screenshot shows the Coursera course interface for 'Blockchain Basics'. The sidebar on the left lists the course structure: Public-Key Cryptography (Video: Algorithms & Techniques: Public-Key Cryptography, 7 min; Reading: (OPTIONAL) Resources: Public-Key Cryptography, 12 min; Practice Quiz: Self-Check, 3 questions) and Hashing (Video: Hashing, 5 min; Reading: (OPTIONAL) Resources: Hashing, 30 min; Practice Quiz: Self-Check). The main content area is titled 'Hashing' and displays a binary tree diagram. The root node is 60, which branches into 41 and 19. Node 41 branches into 10 and 31. Node 10 branches into 4 and 6. Node 31 branches into 10 and 21. Node 19 branches into 10 and 21. The diagram illustrates the process of hashing and how data is organized in a blockchain structure.

### BRIEF REPORT: (POINT-WISE)

- 1). The transaction authorization and validation is carried out using Public-key cryptography i.e Symmetric key because the same key is used for both Encryption and Decryption which gives some problems later on so we use public-private key pairs to authenticate and validate transaction.
- 2). For secured encryption and decryption we use the technique which common and most popular i.e. Hashing. Using hash size of 256 bits and common has functions like SHA-3, SHA-256 and Keccak. They are used for generating account addresses, digital signatures, transaction hash, state hash, receipt hash, block header hash. SHA-3, SHA-256, Keccak-256 are some of the algorithms commonly used by hash generation in blockchains.
- 3). Quiz for all the above topics.