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COLLEGE OF ENGINEERING AND TECHNOLOGY

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VALUE ADDED COURSES

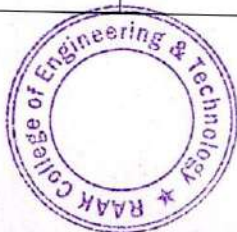
2022-2023

Department of Information Technology

22IT01- Block chain And Crypto currency Technologies

MARK SHEET

Sl. No	Register Number	Student Name	MARKS
1	19TH0502	AGATHIAN M	88
2	19TH0503	AJEETH A	96
3	19TH0504	ARAVINDKRISHNA S	92
4	19TH0505	ARUN T	92
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15	19TH0518	KALIMUTHU K	84



Dr. S. SEENUVASAMURTHI, M.E., Ph.E.
PRINCIPAL

RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
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16	19TH0519	KANNADASAN K	96
17	19TH0521	KIRUBA. B	88
18	19TH0522	MAHESH H	84
19	19TH0523	MUGILAN M	88
20	19TH0524	MURALIDHARAN V	88
21	19TH0525	NAVANEETHA KRISHNAN S	88
22	19TH0526	NITHYA R	96
23	19TH0527	NOORUDEEN M	92
24	19TH0528	PASUPATHI N	92
25	19TH0529	PUGAZHENDHI S	96
26	19TH0530	REVATHI B	96
27	19TH0531	SAMPATHKUMAR V	84
28	19TH0532	SANDHIYA P	96
29	19TH0533	SARANYA T	88
30	19TH0534	SARIGA T	88
31	19TH0535	SASIREKA M	88
32	19TH0536	SATHIYAVANI S	84
33	19TH0537	SELVA SUNDARAM K	84
34	19TH0538	SHEKANAS. K	84



Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
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35	19TH0539	SIVABALAN J	92
36	19TH0540	SUJITH. K	88
37	19TH0541	SURIYA PRAKASH J	92
38	19TH0542	SWETHA K	92
39	19TH0543	THANNARASI. V	92
40	19TH0544	THENADAYALAN V	96
41	19TH0545	U. GEORGE	84
42	19TH0546	UMAR SHARIFS M	88
43	19TH0547	VIJAYWILLSONDASS A	96


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2022-2023

Department of Information Technology

22IT01 - Block chain and Crypto currency

NAME :

CLASS :

DATE :

1. What is the underlying technology behind crypto currencies like Bit coin?

- a) Artificial Intelligence
- b) Blockchain
- c) Quantum Computing
- d) Cloud Computing

Answer: b) Blockchain

2. Which of the following is a characteristic feature of blockchain technology?


- a) Centralized control
- b) Immutable ledger
- c) Unlimited scalability
- d) Low security

Answer: b) Immutable ledger

3. In block chain terminology, what is a "block"?

- a) A single unit of crypto currency
- b) A digital wallet for storing crypto currencies




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- c) A group of transactions bundled together
- d) A cryptographic key used for encryption

Answer: c) A group of transactions bundled together

4. Which consensus mechanism is used in the Bitcoin blockchain?

- a) Proof of Authority (PoA)
- b) Proof of Work (PoW)
- c) Proof of Stake (PoS)
- d) Delegated Proof of Stake (DPoS)

Answer: b) Proof of Work (PoW)

5. Question: What role do miners play in the blockchain network?

- a) Verifying transactions and adding them to the blockchain
- b) Creating new cryptocurrencies
- c) Implementing smart contracts
- d) Providing liquidity to the network


Answer: a) Verifying transactions and adding them to the blockchain

6. Question: Which cryptocurrency was the first to be created?

- a) Ethereum
- b) Litecoin
- c) Bitcoin
- d) Ripple

Answer: c) Bitcoin




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PRINCIPAL
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7. Question: What is the term used to describe the process of verifying and confirming transactions on the blockchain?

- a) Mining
- b) Staking
- c) Hashing
- d) Confirmation

Answer: a) Mining

8. Question: What is the purpose of a cryptocurrency wallet?

- a) Storing physical coins and banknotes
- b) Generating private keys for blockchain transactions
- c) Conducting financial transactions in traditional fiat currencies
- d) Providing access to decentralized applications (DApps)

Answer: b) Generating private keys for blockchain transactions

9. Question: What does the term "fork" mean in the context of blockchain?

- a) A security vulnerability in the blockchain network
- b) A software update or divergence in the blockchain's protocol
- c) The process of transferring cryptocurrency between wallets
- d) A type of consensus mechanism used in blockchain networks

Answer: b) A software update or divergence in the blockchain's protocol

10. Question: Which of the following is NOT a type of blockchain?

- a) Public blockchain
- b) Private blockchain
- c) Hybrid blockchain
- d) Centralized blockchain




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Answer: d) Centralized blockchain

11. Question: What is a smart contract in the context of blockchain technology?

- a) A legally binding agreement stored on the blockchain
- b) A virtual currency used for online transactions
- c) A cryptographic key used for securing blockchain transactions
- d) A software program that automatically executes predefined actions when certain conditions are met

Answer: d) A software program that automatically executes predefined actions when certain conditions are met

12. Question: Which cryptocurrency introduced the concept of smart contracts?

- a) Bitcoin
- b) Ethereum
- c) Ripple
- d) Litecoin

Answer: b) Ethereum

13. Question: What is the role of a "node" in a blockchain network?

- a) Generating new cryptocurrencies
- b) Verifying and validating transactions
- c) Executing smart contracts
- d) Providing liquidity to the network

Answer: b) Verifying and validating transactions

14. Question: What is the purpose of consensus mechanisms in blockchain networks?

- a) To prevent double-spending of cryptocurrencies




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- b) To ensure all nodes in the network agree on the state of the blockchain
- c) To encrypt sensitive data stored on the blockchain
- d) To regulate the supply of cryptocurrencies

Answer: b) To ensure all nodes in the network agree on the state of the blockchain

15. Question: Which cryptographic algorithm is commonly used for hashing in blockchain technology?

- a) RSA
- b) SHA (Secure Hash Algorithm)
- c) AES
- d) ECC (Elliptic Curve Cryptography)

Answer: b) SHA (Secure Hash Algorithm)

16. Question: What is the role of a "block reward" in the context of mining in blockchain networks?

- a) Providing incentives for miners to validate transactions
- b) A penalty for miners who fail to validate transactions accurately
- c) A fixed fee charged for each transaction on the blockchain
- d) A reward given to users for participating in a blockchain network


Answer: a) Providing incentives for miners to validate transactions

17. Question: Which of the following is a feature of blockchain technology?

- a) Centralized control
- b) High transaction fees
- c) Anonymity
- d) Transparency

Answer: d) Transparency




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18. Question: What is the purpose of "gas" in the Ethereum blockchain?

- a) A measure of computational effort required to execute smart contracts
- b) A unit of account for cryptocurrency transactions
- c) A protocol for securing blockchain networks
- d) A cryptographic algorithm used for hashing

Answer: a) A measure of computational effort required to execute smart contracts

19. Question: Which blockchain network is specifically designed for enterprise and business applications?

- a) Bitcoin
- b) Ethereum
- c) Hyperledger Fabric
- d) Litecoin

Answer: c) Hyperledger Fabric

20. Question: What is the purpose of "sharding" in blockchain technology?

- a) To increase the security of blockchain networks
- b) To reduce the size of individual blocks in the blockchain
- c) To improve scalability by dividing the blockchain into smaller, manageable parts
- d) To prevent unauthorized access to blockchain data

Answer: c) To improve scalability by dividing the blockchain into smaller, manageable parts

21. Question: Which cryptocurrency is known for its focus on privacy and anonymity?

- a) Bitcoin
- b) Ethereum




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c) Monero

d) Ripple

Answer: c) Monero

22.Question: What is the role of a "consortium" blockchain?

a) Open to the public for participation

b) Controlled by a single organization or entity

c) Governed by a group of pre-selected nodes

d) Managed by a decentralized network of nodes

Answer: c) Governed by a group of pre-selected nodes

23.Question: Which blockchain consensus mechanism aims to achieve consensus through a process of voting by stakeholders?

a) Proof of Work (PoW)

b) Proof of Authority (PoA)

c) Delegated Proof of Stake (DPoS)

d) Proof of Stake (PoS)

Answer: c) Delegated Proof of Stake (DPoS)

24.Question: What is the purpose of a "hard fork" in blockchain technology?

a) To merge two separate blockchain networks into one


b) To upgrade the protocol or introduce new features

c) To prevent unauthorized access to blockchain data

d) To reverse a transaction that has been confirmed on the blockchain

Answer: b) To upgrade the protocol or introduce new features




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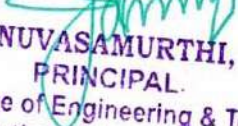
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25. Question: Which term describes the process of distributing new cryptocurrency tokens to existing holders based on their current holdings?

- a) Staking
- b) Airdrop
- c) Mining
- d) ICO (Initial Coin Offering)

Answer: b) Airdrop




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VALUE ADDED COURSES

2022-2023

Department of Information Technology

22IT01 - Block chain and Crypto currency

NAME : A. AJEETH

CLASS : IV/IT

DATE : 20/08/2022

1. What is the underlying technology behind crypto currencies like Bit coin?

- a) Artificial Intelligence
- b) Blockchain
- c) Quantum Computing
- d) Cloud Computing

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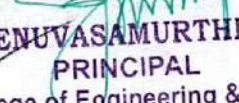
2. Which of the following is a characteristic feature of blockchain technology?

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3. In block chain terminology, what is a "block"?

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4. Which consensus mechanism is used in the Bitcoin blockchain?

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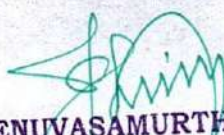
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- a) Ethereum
- b) Litecoin
- c) Bitcoin
- d) Ripple

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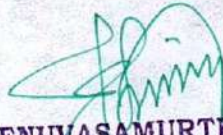
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PRINCIPAL

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24. Question: What is the purpose of a "hard fork" in blockchain technology?

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- d) To reverse a transaction that has been confirmed on the blockchain

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- b) Airdrop ✓
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- d) ICO (Initial Coin Offering)




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Certificate of Completion

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This is to certify that Mr/Ms

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Year.....^{IV} Department.....^{IT} has successfully Completed the Value added course.

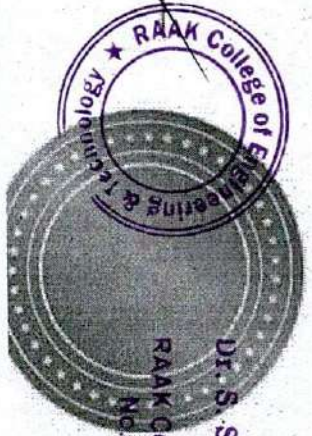
Block CHAIN &

COURSE TITLE: CRYPTOCURRENCY TECHNOLOGIES

SCORE: 92

COURSE DURATION: (9-8-22 to 13-8-22)

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DR. S. SEENUVASAMURTHI, M.E., Ph.D.

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No.1, Muthupatti, P.O. RAAK,
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DR. S. SEENUVASAMURTHI, M.E., Ph.D.
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VALUE ADDED COURSES

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22IT02 - Cryptography and Network Security

MARK SHEET

Sl. No	Register Number	Student Name	Marks (100)
1	20TH0251	ARUNADEVI K	88
2	20TH0252	ASHOKKUMAR R	96
3	20TH0253	DHARANIRASAN R	92
4	20TH0254	JESINTHA MARY D	92
5	20TH0255	LOGESH M	96
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12	20TH0262	SAKTHI YUVARAJ V	84
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14	20TH0266	YAZHINI K	84
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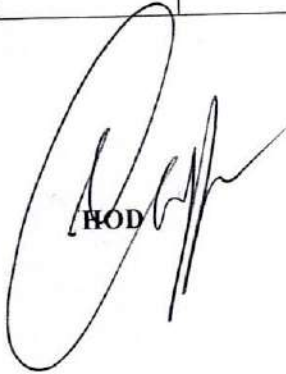


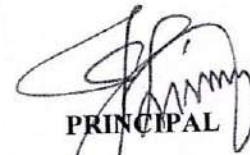
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VALUE ADDED COURSES

2022-2023

Department of Information Technology

22IT02 - Cryptography And Network Security

NAME :

CLASS :

DATE :

1. What is the primary purpose of cryptography in network security?

- a) To ensure physical security of network devices
- b) To prevent unauthorized access to network resources
- c) To encrypt network traffic for confidentiality
- d) To configure network firewalls and routers

Answer: c) To encrypt network traffic for confidentiality

2. Which cryptographic algorithm is commonly used for encrypting sensitive data transmitted over the internet?

- a) DES (Data Encryption Standard)
- b) RSA (Rivest-Shamir-Adleman)
- c) AES (Advanced Encryption Standard)
- d) SHA (Secure Hash Algorithm)

Answer: c) AES (Advanced Encryption Standard)

3. What is the purpose of a digital signature in network security?

- a) To encrypt network traffic
- b) To authenticate the sender of a message
- c) To prevent packet sniffing attacks



Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
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c) To prevent packet sniffing attacks

d) To filter malicious traffic

Answer: b) To authenticate the sender of a message

4. Which type of attack involves eavesdropping on network traffic to capture sensitive information?

a) Brute-force attack

b) Denial-of-Service (DoS) attack

c) Man-in-the-middle (MITM) attack

d) Phishing attack

Answer: c) Man-in-the-middle (MITM) attack

5. What is the primary purpose of a firewall in network security?

a) To encrypt network traffic

b) To authenticate users

c) To filter and monitor network traffic

d) To detect and remove malware from the network

Answer: c) To filter and monitor network traffic

6. Which cryptographic technique is used to verify the integrity of transmitted data?

a) Encryption

b) Hashing

c) Digital signatures

d) Key exchange

Answer: b) Hashing




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL

RAAK College of Engineering & Technology
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7. What is the purpose of a VPN (Virtual Private Network) in network security?

- a) To authenticate users
- b) To encrypt network traffic over an insecure network
- c) To filter and monitor network traffic
- d) To prevent denial-of-service attacks

Answer: b) To encrypt network traffic over an insecure network

8. Which cryptographic protocol is commonly used for secure communication over the internet?

- a) HTTP (Hypertext Transfer Protocol)
- b) FTP (File Transfer Protocol)
- c) SSL/TLS (Secure Sockets Layer/Transport Layer Security)
- d) SMTP (Simple Mail Transfer Protocol)

Answer: c) SSL/TLS (Secure Sockets Layer/Transport Layer Security)

9. What is the purpose of two-factor authentication in network security?

- a) To encrypt network traffic
- b) To authenticate users with multiple credentials
- c) To prevent network intrusion
- d) To filter and monitor network traffic

Answer: b) To authenticate users with multiple credentials

10. Which network security measure involves hiding internal network addresses from external networks?

- a) NAT (Network Address Translation)




Dr. S. SEENUVASAMURTHI, M.E., Ph.C.
PRINCIPAL
RAAK College of Engineering & Technology
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- b) ACL (Access Control List)
- c) IDS (Intrusion Detection System)
- d) DMZ (Demilitarized Zone)

Answer: a) NAT (Network Address Translation)

11. What is the purpose of an Intrusion Detection System (IDS) in network security?

- a) To encrypt network traffic
- b) To prevent unauthorized access to network resources
- c) To monitor and detect suspicious activities on the network
- d) To authenticate users

Answer: c) To monitor and detect suspicious activities on the network

12. Which type of encryption uses the same key for both encryption and decryption?

- a) Symmetric encryption
- b) Asymmetric encryption
- c) Public key encryption
- d) Private key encryption


Answer: a) Symmetric encryption

13. What is the purpose of a DMZ (Demilitarized Zone) in network security?

- a) To provide secure storage for encryption keys
- b) To filter and monitor network traffic
- c) To segregate the internal network from external networks
- d) To authenticate users

Answer: c) To segregate the internal network from external networks




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PRINCIPAL
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14. Which cryptographic technique is used for securely exchanging encryption keys over an insecure channel?

- a) Digital signatures
- b) Key exchange protocols
- c) Hashing
- d) Symmetric encryption

Answer: b) Key exchange protocols

15. What is the purpose of an Access Control List (ACL) in network security?

- a) To encrypt network traffic
- b) To authenticate users
- c) To filter and monitor network traffic
- d) To control access to network resources

Answer: d) To control access to network resources

16. Which network security measure involves limiting the number of login attempts to prevent password guessing attacks?


- a) ACL (Access Control List)
- b) IDS (Intrusion Detection System)
- c) Two-factor authentication
- d) Account lockout policy

Answer: d) Account lockout policy

17. What is the purpose of a proxy server in network security?

- a) To encrypt network traffic




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
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- b) To filter and monitor network traffic
- c) To provide secure storage for encryption keys

d) To authenticate users

Answer: b) To filter and monitor network traffic

18. Which network security measure involves periodically updating software and firmware to fix security vulnerabilities?

- a) ACL (Access Control List)
- b) IDS (Intrusion Detection System)
- c) Patch management
- d) VPN (Virtual Private Network)

Answer: c) Patch management

19. What is the purpose of a honeypot in network security?

- a) To detect and deflect denial-of-service attacks
- b) To filter and monitor network traffic
- c) To simulate vulnerable systems to attract attackers
- d) To provide secure storage for encryption keys

Answer: c) To simulate vulnerable systems to attract attackers

20. Which network security measure involves separating network traffic into multiple logical networks?

- a) VLAN (Virtual Local Area Network)
- b) IDS (Intrusion Detection System)
- c) NAT (Network Address Translation)




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
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d) ACL (Access Control List)

Answer: a) VLAN (Virtual Local Area Network)

21. What is the purpose of a honeynet in network security?

a) To detect and deflect denial-of-service attacks

b) To simulate vulnerable systems to attract attackers

c) To authenticate users

d) To provide secure storage for encryption keys

Answer: b) To simulate vulnerable systems to attract attackers

22. Which network security measure involves using biometric authentication to verify the identity of users?

a) Firewall

b) IDS (Intrusion Detection System)

c) Two-factor authentication

d) Biometric access control

Answer: d) Biometric access control

23. What is the purpose of a DNSSEC (Domain Name System Security Extensions) in network security?

a) To encrypt network traffic

b) To prevent DNS spoofing attacks

c) To provide secure storage for encryption keys

d) To authenticate users

Answer: b) To prevent DNS spoofing attacks




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PRINCIPAL
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24. Which network security measure involves monitoring network traffic for signs of suspicious activities or security breaches?

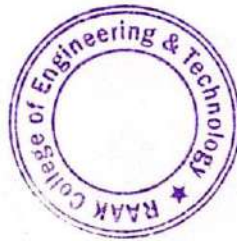
- a) Firewall
- b) IDS (Intrusion Detection System)
- c) VPN (Virtual Private Network)
- d) Patch management

Answer: b) IDS (Intrusion Detection System)

25. What is the purpose of a WAF (Web Application Firewall) in network security?

- a) To encrypt network traffic
- b) To prevent unauthorized access to web applications
- c) To provide secure storage for encryption keys
- d) To authenticate users

Answer: b) To prevent unauthorized access to web applications




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
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VALUE ADDED COURSES

2022-2023

Department of Information Technology

22IT02 - Cryptography And Network Security

NAME : A. GOWSIKA

CLASS : III / IT

DATE : 20/08/2022

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$\frac{23}{25}$

92%


2. Which cryptographic algorithm is commonly used for encrypting sensitive data transmitted over the internet?

- a) DES (Data Encryption Standard)
- b) RSA (Rivest-Shamir-Adleman)
- c) AES (Advanced Encryption Standard)
- d) SHA (Secure Hash Algorithm)

3. What is the purpose of a digital signature in network security?

- a) To encrypt network traffic
- b) To authenticate the sender of a message
- c) To prevent packet sniffing attacks
- d) To filter malicious traffic




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
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4. Which type of attack involves eavesdropping on network traffic to capture sensitive information?

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6. Which cryptographic technique is used to verify the integrity of transmitted data?

- a) Encryption
- b) Hashing
- c) Digital signatures
- d) Key exchange

7. What is the purpose of a VPN (Virtual Private Network) in network security?

- a) To authenticate users
- b) To encrypt network traffic over an insecure network
- c) To filter and monitor network traffic
- d) To prevent denial-of-service attacks




Dr. S. SEENUVASAMURTHI, M.E., Ph.C.
PRINCIPAL
RAAK College of Engineering & Technology
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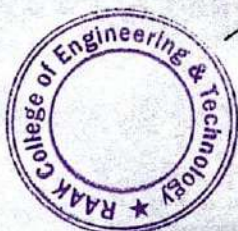
- a) To encrypt network traffic
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PRINCIPAL
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PRINCIPAL
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Sulthanpet Post,
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Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110



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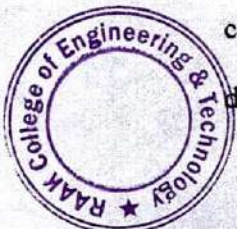
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Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
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Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL

RAAK College of Engineering & Technology
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Certificate of Completion

2022-2023

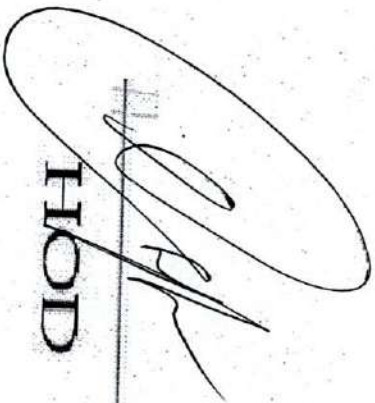
This is to certify that Mr/Ms GROWSIKA A

Year.....^{III} Department.....^{IT} has successfully Completed the Value added course.

COURSE TITLE: Cryptography & Network Security

SCORE: 92

COURSE DURATION: (9-8-22 to 13-8-22)


HOD




U. S. SEENUVASAMURTHI, M.F.P.P.
PRINCIPAL

RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Salthanpet Post, 605 010
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VALUE ADDED COURSES
2022-2023

Department of Information Technology

22IT03- Mathematical Modeling for Data Science
MARK SHEET

Sl. No	Register Number	Student Name	Marks
1	21TH0251	AJAY S	96
2	21TH0252	ANJUM S	92
3	21TH0253	ASWINI S	92
4	21TH0254	DHARUN SOORYA KUMAR S	96
5	21TH0256	GANESH R	96
6	21TH0257	HARIHARAN V	84
7	21TH0258	HEERA R.K	96
8	21TH0259	HEMA M	88
9	21TH0260	JEEVANKUMAR M	88
10	21TH0261	KAVIYA S	88
11	21TH0262	KAVIYA V	84
12	21TH0263	KUMARAN J	96
13	21TH0265	MANIBHARATHI V	88
14	21TH0268	MOHAMED FAROOK M	84
15	21TH0269	NANDHINI A	96



Dr. S. SEENUVASEMURTHI, M.E., Ph.D.

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17	21TH0271	PUNITHA S	84
18	21TH0272	PUSHPARAJ P	88
19	21TH0273	RANJANA J	88
20	21TH0274	SANGAVI C	88
21	21TH0275	SHARMILA S	96
22	21TH0276	SIVAPRAGASAM P	92
23	21TH0277	SOUNDHARYA S	92
24	21TH0278	SOWMIYA M	96
25	21TH0279	SRIRAM G	96
26	21TH0280	VANITHA S	84
27	21TH0281	VIMALRAJ N	96
28	21TH0282	VINOTHKUMAR V	88
29	21TB0112	DANIEL V	88
30	21THL009	NIMRO MARDIN A	88
31	21THL010	PRAVEEN KUMAR M	84
32	21THL011	TARIQ AJIZ K	84



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PRINCIPAL
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VALUE ADDED COURSES

2022-2023

Department of Information Technology

22IT03 - Mathematical Modeling For Data Science

NAME :

CLASS :

DATE :

1. What is the primary goal of data modeling in the context of data science?

- A. To collect raw data
- B. To predict future data
- C. To represent and understand data
- D. To clean and preprocess data

Answer: C

2. What is a visual representation of the relationship between different entities in a database called?

- A. Data Dictionary
- B. Data Flow Diagram (DFD)
- C. Entity-Relationship Diagram (ERD)
- D. Data Cube

Answer: C

3. What is the process of transforming raw data into a structured format suitable for analysis?

- A. Data Aggregation



Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
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- B. Data Wrangling
- C. Data Imputation
- D. Data Integration

Answer: B

4. Which data modeling approach represents data as a collection of entities, their attributes, and the relationships between them?

- A. Hierarchical Modeling
- B. Relational Modeling
- C. Object-Oriented Modeling
- D. Entity-Relationship Modeling

Answer: D

5. What is the purpose of a Data Flow Diagram (DFD) in data modeling?


- A. To visualize the data distribution
- B. To represent the flow of data
- C. To create summary statistics
- D. To display relationships between entities

Answer: B

6. What is the term for defining data types, structures, and constraints for a database?

- A. Data Integration
- B. Data Modeling
- C. Data Governance
- D. Data Profiling




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
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Answer: B

7. What kind of model uses mathematical equations to describe relationships between variables?

- A. Statistical Model
- B. Conceptual Model
- C. Physical Model
- D. Logical Model

Answer: A

8. Which technique is used to handle missing data by filling in missing values?

- A. Data Cleaning
- B. Data Integration
- C. Data Imputation
- D. Data Validation

Answer: C

9. What does the term "normalization" refer to in data modeling?

- A. Aggregating data
- B. Reducing redundancy
- C. Increasing data complexity
- D. Simplifying data

Answer: B

10. What type of data model is used for organizing data within tables?




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
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- A. Hierarchical Model
- B. Network Model
- C. Relational Model
- D. Object-Oriented Model

Answer: C

11. In data science, what is a model called that describes the likelihood of different outcomes?

- A. Predictive Model
- B. Descriptive Model
- C. Prescriptive Model
- D. Probabilistic Model

Answer: D

12. Which method involves reducing the number of variables under consideration?

- A. Data Scaling
- B. Data Reduction
- C. Data Cleaning
- D. Data Mining

Answer: B

13. What is the purpose of a scatter plot in data analysis?

- A. To show data distribution
- B. To find correlation between variables
- C. To classify data
- D. To predict future trends




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Answer: B

14. What kind of model includes nodes and links to represent data?

- A. Relational Model
- B. Network Model
- C. Hierarchical Model
- D. Object-Oriented Model

Answer: B

15. Which of the following is the common goal of statistical modeling?

- A. Inference
- B. Summarizing
- C. Subsetting
- D. None of the above

Answer: A

16. Causal analysis is commonly applied to census data.

- A. True
- B. False
- C. Can be true or false
- D. Cannot say

Answer: B

17. Which of the following model is usually a gold standard for data analysis?

- A. Inferential
- B. Descriptive
- C. Causal




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110



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D. All of the above

Answer: C

18. Which of the following step is performed by a data scientist after acquiring the data?

A. Data Cleaning

B. Data Integration

C. Data Replication

D. All of the above

Answer: A

19. Which of the following is not a correct skill for a Data Scientist?

A. Probability & Statistics

B. Machine Learning / Deep Learning

C. Data Wrangling

D. None of the above

Answer: D

20. What is the primary purpose of data modeling in the context of databases?

A. To design database structures

B. To generate data

C. To conduct machine learning experiments

D. To visualize data trends

Answer: A




Dr. S. SEENUVASAMURTHI, M.E., Ph.C.,
PRINCIPAL

RAAK College of Engineering & Technology
No.1, Muthupillai Palayam Road,
Sulthanpet Post,
Puducherry - 605 110



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21. What is data wrangling?

- A. Data aggregation
- B. Data cleaning
- C. Data encryption
- D. Data visualization

Answer: B

22. Which of the following is a key characteristic of a hacker in data science?

- A. Afraid to say they don't know the answer
- B. Willing to find answers on their own
- C. Not willing to find answers on their own
- D. All of the above

Answer: B

23. Which of the following is not an application of data science?

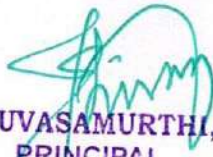
- A. Recommendation Systems
- B. Image & Speech Recognition
- C. Online Price Comparison
- D. Privacy Checker

Answer: D

24. Which of the following steps is not part of the data science process?

- A. Discovery
- B. Model Planning
- C. Communication Building




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PRINCIPAL
RAAK College of Engineering & Technology
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D. Operationalize

Answer: C

25. What is the significance of inferential statistics in data science?

A. To describe the data

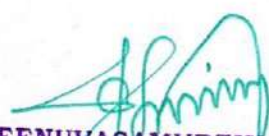
B. To infer conclusions about a population

C. To visualize data

D. To clean data

Answer: B




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PRINCIPAL
RAAK College of Engineering & Technology
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VALUE ADDED COURSES

2022-2023

Department of Information Technology

22IT03 - Mathematical Modeling For Data Science

NAME : ANJUM.S

CLASS : II / IT


DATE : 20/08/2022

1. What is the primary goal of data modeling in the context of data science?
 - A. To collect raw data
 - B. To predict future data
 - C. To represent and understand data
 - D. To clean and preprocess data
2. What is a visual representation of the relationship between different entities in a database called?
 - A. Data Dictionary
 - B. Data Flow Diagram (DFD)
 - C. Entity-Relationship Diagram (ERD)
 - D. Data Cube
3. What is the process of transforming raw data into a structured format suitable for analysis?
 - A. Data Aggregation
 - B. Data Wrangling
 - C. Data Imputation
 - D. Data Integration

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92%




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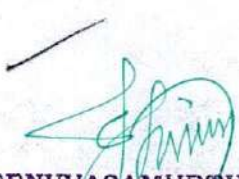
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4. Which data modeling approach represents data as a collection of entities, their attributes, and the relationships between them?
- A. Hierarchical Modeling
 - B. Relational Modeling
 - C. Object-Oriented Modeling
 - D. Entity-Relationship Modeling
5. What is the purpose of a Data Flow Diagram (DFD) in data modeling?
- A. To visualize the data distribution
 - B. To represent the flow of data
 - C. To create summary statistics
 - D. To display relationships between entities
6. What is the term for defining data types, structures, and constraints for a database?
- A. Data Integration
 - B. Data Modeling
 - C. Data Governance
 - D. Data Profiling
7. What kind of model uses mathematical equations to describe relationships between variables?
- A. Statistical Model
 - B. Conceptual Model
 - C. Physical Model
 - D. Logical Model




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8. Which technique is used to handle missing data by filling in missing values?

- A. Data Cleaning
- B. Data Integration
- C. Data Imputation
- D. Data Validation

9. What does the term "normalization" refer to in data modeling?

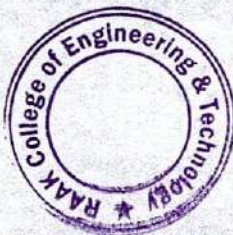
- A. Aggregating data
- B. Reducing redundancy
- C. Increasing data complexity
- D. Simplifying data

10. What type of data model is used for organizing data within tables?

- A. Hierarchical Model
- B. Network Model
- C. Relational Model
- D. Object-Oriented Model

11. In data science, what is a model called that describes the likelihood of different outcomes?

- A. Predictive Model
- B. Descriptive Model
- C. Prescriptive Model
- D. Probabilistic Model




Dr. S. SEENUVASAMURTHI, M.E., Ph.D.,
PRINCIPAL
RAAK College of Engineering & Technology
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Puducherry - 605 010




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12. Which method involves reducing the number of variables under consideration?
- A. Data Scaling
 - B. Data Reduction
 - C. Data Cleaning
 - D. Data Mining
13. What is the purpose of a scatter plot in data analysis?
- A. To show data distribution
 - B. To find correlation between variables
 - C. To classify data
 - D. To predict future trends
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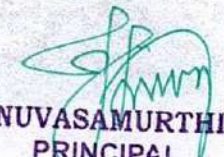
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PRINCIPAL
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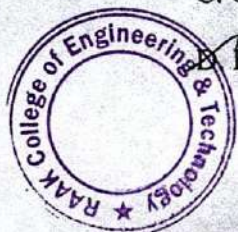
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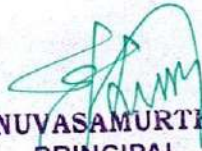
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Certificate of Completion

2022-2023

This is to certify that Mr/Ms POOJA R.V

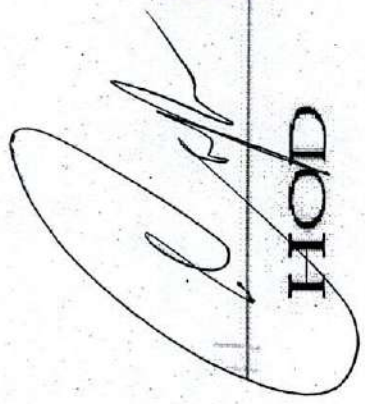
Year..... Department..... has successfully Completed the Value added course.

MATHEMATICAL MODELING
FOR DATA SCIENCE

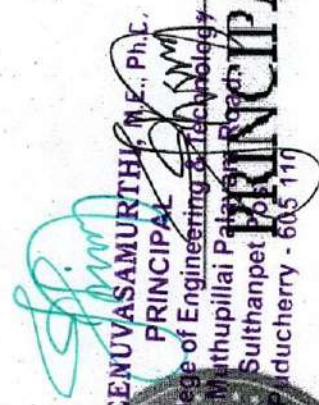
COURSE TITLE:

SCORE: 88

COURSE DURATION: (9-8-22 to 13-8-22)


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DR. S. SEENUVASAMURTHI, M.E., Ph.D.
PRINCIPAL
RAAK College of Engineering & Technology
No.1, Mathupillai Palayam Road,
Sulthanpet
Puducherry - 605 117

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