

Hall Ticket Number :									
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R-19

Code: 19A552T

III B.Tech. I Semester Supplementary Examinations Nov/Dec 2022

Computer Networks

(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

UNIT-I

1. What is a network? Explain the differences between Local Area Networks and Wide Area Networks with suitable diagrams.

Marks	CO	Blooms Level
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14M	CO1	L2
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OR

2. Illustrate the functionality of various layers present in OSI model with a neat sketch

14M	CO1	L4
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UNIT-II

3. a) Summarize Multiple Access Protocols
b) Explain various IEEE 802.X frame formats.

7M	CO2	L2
7M	CO2	L2

OR

4. a) Derive expression of throughput in ALOHA Protocol.
b) A bit stream 10011101 is transmitted using the standard CRC method described in the text. The generator polynomial is x^3+1 . Show the actual bit string transmitted. Demonstrate CRC algorithm in detail.

7M	CO2	L6
7M	CO2	L4

UNIT-III

5. a) Distinguish between adaptive and non-adaptive routing algorithms.
b) What is an IP address? Discuss the various IP address classes.

7M	CO3	L2
7M	CO3	L2

OR

6. a) Write about Internet protocol and types with their applications.
b) What is datagram network? Compare and contrast of virtual circuit and datagram networks

7M	CO3	L2
7M	CO3	L3

UNIT-IV

7. a) Give detailed description of performance issues in transport layer protocols.
b) Compare TCP and UDP Headers.

7M	CO4	L2
7M	CO4	L3

OR

8. a) What do you understand Tunnel Model and What Protocols fall Under The TCP/IP Internet Layer?
b) Generalize each field of the format of the TCP packet header. Specify the justification for having variable field lengths for the fields in the TCP header.

7M	CO4	L4
7M	CO4	L4

UNIT-V

9. Describe in detail about the following in electronic mail.
i. Message format ii. Message transfer iii. Mail reader

14M	CO5	L2
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OR

10. a) State the difference between fully qualified and partially qualified domain name.
b) What is the significance of the Domain Naming System? Write a short note on DNS Name Space

7M	CO5	L2
7M	CO5	L2

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R-19

Code: 19A55CT

III B.Tech. I Semester Supplementary Examinations Nov/Dec 2022

Cryptography and Network Security
(Computer Science and Engineering)

Max. Marks: 70 Time: 3 Hours
 Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

UNIT-I

- | | | | | |
|-----------|---|-----|---|---|
| 1. | Explain about OSI Security architecture model with neat diagram | 14M | 1 | 2 |
| OR | | | | |
| 2. a) | Write short notes on | | | |
| | (i). Security attacks | 7M | 1 | 1 |
| | (ii). Security services | 7M | 1 | 1 |

UNIT-II

- | | | | | |
|-----------|--|----|---|---|
| 3. a) | What are disadvantages of double DES? | 7M | 2 | 2 |
| b) | Perform decryption and encryption using RSA algorithm with p=3, q=11, e=7 and N=5. | 7M | 2 | 3 |
| OR | | | | |
| 4. a) | In AES, how the encryption key is expanded to produce keys for the 10 rounds | 7M | 2 | 2 |
| b) | Discuss about Public Key distribution and Symmetric-Key Distribution | 7M | 2 | 3 |

UNIT-III

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|-----------|--|-----|---|---|
| 5. a) | Explain authentication requirements. | 7M | 3 | 2 |
| b) | Explain approaches of digital signature standard | 7M | 3 | 2 |
| OR | | | | |
| 6. | Describe Hash Functions Based on Cipher Block Chaining | 14M | 3 | 2 |

UNIT-IV

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|-----------|---|----|---|---|
| 7. a) | Draw the general format for PGP message | 7M | 4 | 2 |
| b) | Explain different Web security requirement. | 7M | 4 | 2 |
| OR | | | | |
| 8. a) | Write and explain TLS functions and alert codes of Transport Layer Security. | 7M | 4 | 1 |
| b) | What is the use of SSL protocol? Explain SSL record protocol operation with SSL record format | 7M | 4 | 2 |

UNIT-V

- | | | | | |
|-----------|--|-----|---|---|
| 9. a) | Give the taxonomy of malicious programs. Define each one | 7M | 5 | 2 |
| b) | Describe trusted system in detail | 7M | 5 | 2 |
| OR | | | | |
| 10. | Write short notes on the following | | | |
| | a) Firewall Configurations b) Viruses c) Trusted Systems | | | |
| | d) Worms e) HTTPS | 14M | 5 | 1 |

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Code: 19A551T

III B.Tech. I Semester Supplementary Examinations Nov/Dec 2022

Advanced Java Programming
(Computer Science and Engineering)

Max. Marks: 70

Time: 3 Hours

Answer any five full questions by choosing one question from each unit (5x14 = 70 Marks)

		Marks	CO	Blooms Level
UNIT-I				
1.	Explain the JavaFX application skeleton with suitable example program.	14M	1	2
OR				
2. a)	Explain the life cycle methods of JavaFX application.	7M	1	2
b)	Discuss about stage and Scene.	7M	1	2
UNIT-II				
3. a)	Write a JavaFX application to display image on the Label.	7M	2	3
b)	List out JavaFX controls. Explain any two.	7M	2	2
OR				
4.	Demonstrate RadioButton component functionality with an example program.	14M	2	2
UNIT-III				
5.	Explain a) DriverManager interface b) Connection interface c) ResultSet interface	14M	3	2
OR				
6. a)	List and explain the methods to make changes to ResultSet.	7M	3	2
b)	Explain cursor movement methods in ResultSet.	7M	3	2
UNIT-IV				
7.	List out and explain methods from ServletRequest interface and ServletResponse interfaces.	14M	4	2
OR				
8. a)	Differentiate between GenericServlet and HttpServlet.	4M	4	4
b)	Develop a HttpServlet application to read parameters from HTML form	10M	4	3
UNIT-V				
9.	How can you use jsp:include and jsp:forward action tags. Demonstrate with an example program	14M	5	2
OR				
10. a)	Develop a jsp application to forward a request from one jsp page to another jsp page.	8M	5	3
b)	Differentiate between Servlet and JSP.	6M	5	3
