

GURU NANAK INSTITUTE OF TECHNOLOGY

An Autonomous Institute under MAKAUT

2022

COMPUTER NETWORKING

EI703A

TIME ALLOTTED: 3HR

FULL MARKS:70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable

GROUP – A

(Multiple Choice Type Questions)

Answer any **ten** from the following, choosing the correct alternative of each question: **10×1=10**

	Marks	CO No
1. i) The full form of OSI is? a) Open System Interconnection b) Operating System Interface c) Operating System Information d) None	1	CO3
ii) What is the number of layers in the OSI model? a) 2 b) 3 c) 7 d) 8	1	CO3
iii) What does a set of rules define? a) SMTP b) FTP c) IMPC d) Protocol	1	CO3
iv) IP means a) Internet Protocol b) Intermediate Protocol c) International Protocol d) None	1	CO3
v) What is the collection of the hyperlinked document on the internet known as? a) HTML b) EMAIL c) WWW d) None	1	CO3
vi) Topology stands for a) Connection b) Rules c) Communication d) Business	1	CO3

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|---|---|-----|
| vii) What is the length of the IPv4 address? | 1 | CO3 |
| a) 8 bits | | |
| b) 16 bits | | |
| c) 32 bits | | |
| d) 64 bits | | |
| viii) What is the term used when the main server sends mail to another mail server? | 1 | CO3 |
| a) FTP | | |
| b) SMTP | | |
| c) TCP/IP | | |
| d) MIME | | |
| ix) What is the length of the MAC address? | 1 | CO3 |
| a) 8 bits | | |
| b) 16 bits | | |
| c) 32 bits | | |
| d) 48 bits | | |
| x) Who keeps the private key in asymmetric key cryptography? | 1 | CO3 |
| a) Sender | | |
| b) Receiver | | |
| c) Both | | |
| d) None | | |
| xi) What is a proxy server also known as? | 1 | CO3 |
| a) Application level gateway | | |
| b) Proxy tools | | |
| c) Application proxy | | |
| d) None | | |

GROUP – B

(Short Answer Type Questions)

(Answer any *three* of the following) **3 x 5 = 15**

- | | Marks | CO No |
|---|--------------|--------------|
| 2. What is Circuit switching? | 5 | CO2 |
| 3. a. Explain the different functions of Application Layer. | 3 | CO1 |
| b. Name the two protocols used in transport layer. | 2 | CO3 |
| 4 a. Name the two protocols used in Network layer. | 3 | CO2 |
| b. What is DNS? | 2 | CO4 |
| 5. a. What is Data Communication? | 3 | CO1 |
| b. Difference between Computer Networking and Data Communication. | 2 | CO2 |
| 6. Explain Mesh Ring and Hybrid topology. | 5 | CO2 |

GROUP – C

(Long Answer Type Questions)

(Answer any *three* of the following)

3 x 15 = 45

	Marks	CO No
7. a. Explain TCP/IP.	3	CO1
b. Explain classes of IP address and its range.	5	CO3
c. What is Distance Vector routing? Explain. What is Host ID and Net ID?	7	CO2
8. a. What is Routing? Explain OSPF and BGP.	8	CO4
b. Mention the differences between OSI & TCP/IP Reference Models.	7	CO2
9. a. What is Sub-netting? Give one example to explain the sub-netting process.	8	CO3
b. What is Flooding and what are the types of Flooding?	7	CO2
10. a. Compare to wired and wireless network.	5	CO1
b. What are the functions of the Application Layer? Explain the working of SMTP with diagram.	10	CO4
11. Write Short note: (Any three)	3x5=15	
a. FTP	5	CO3
b. IP	5	CO4
c. MAC	5	CO2
d. DHCP	5	CO4
e. IPv6	5	CO2