

(NO. OF PAGES: 2)

(FOR THE CANDIDATES ADMITTED

21UIT412

DURING THE ACADEMIC YEAR 2021 ONLY)

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI
END-OF-SEMESTER EXAMINATIONS : MAY 2023
B.Sc. – INFORMATION TECHNOLOGY
IV SEMESTER

MAXIMUM MARKS: 70

TIME : 3 HOURS

PART – III

DATA COMMUNICATION AND NETWORKS

SECTION - A (10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.

(K1)

(Qn. No. 1 - 5)

1. A _____ is a set of rules and conventions that govern data communications. The sender and the receiver, the two key parties in data communication, must agree on a common set of rules,
a) Protocol b) Rules c) Guidelines d) Communication
2. In _____ topology (also called complete topology), each node is connected to every other node by direct links.
a) Mesh Topology b) Star Topology c) Tree Topology d) Ring Topology
3. Expand ISDN
a) Integrated Services Digital Network b) Integrated Secured Digital Network
c) Integrated Services Directory Network d) Internal Services Digital Network
4. The _____ standard describes the communication protocols including delivery, error control, flow control, routing, etc., between a computer and a network end point
a) Frame Relay b) X.25 c) virtual circuit d) ATM
5. A _____ is useful for interconnecting two or more networks and that they can differ in physical characteristics such as frame size, transmission rates, topologies, addressing etc.
a) Frame Relay b) Bridge c) Router d) Modem

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

(K2)

6. Specify the use of modem?
7. What do you mean by Switching in Computer Networks. Define Switching in Computer Networks.
8. What are the two types of MAN?
9. What is meant by Congestion Control?
10. State the purpose of bridges in Internet.

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SECTION – B

(5 X 4 = 20 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

11. a) Explain in detail Digital Signal, Analog Transmission using Modems.
(OR)
b) Narrate in detail Parallel and Serial Communications.
12. a) Explain in detail Transmission Errors and its classifications.
(OR)
b) Describe in detail Guided Transmission Media, in Network Communication
13. a) Describe in detail Ethernet Technology.
(OR)
b) Narrate in detail Wide Area Network (WAN).
14. a) Explain in detail Frame Relay Working Principle.
(OR)
b) Describe in detail Asynchronous Transfer Mode (ATM)
15. a) Narrate in detail Routers and its uses.
(OR)
b) Describe in detail Bridges in Internet.

SECTION - C

(4 X 10 = 40 MARKS)

ANSWER ANY FOUR OUT OF SIX QUESTIONS

(16TH QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS FROM Q.NO: 17 TO 21)

16. Conclude in detail about the various Network Topologies
17. Give a detailed account on Multiplexing and its types in Data Communication.
18. Discuss the two types of Routing Algorithms and explain them in detail.
19. Discuss in detail the different layers in the OSI model. With illustration, discuss in detail the different layers in the OSI Model.
20. Summarize in detail X.25 Protocol
21. Summarize in detail the Ways of Accessing the Internet
