

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI**

**END-OF-SEMESTER EXAMINATIONS : MAY – 2023**

**B.Sc. – COMPUTER TECHNOLOGY**

**MAXIMUM MARKS: 70**

**SEMESTER - IV**

**TIME : 3 HOURS**

**PART – III**

**DATA COMMUNICATION AND NETWORKS**

**SECTION – A (10 X 1 = 10 MARKS )**

**ANSWER THE FOLLOWING QUESTIONS.**

**(K1)**

1. A set of rules that govern data communications between the sender and the receiver is called \_\_\_\_\_.  
a) rule                      b) protocol                      c) law                      d) option
2. Optical fibers use \_\_\_\_\_ for data transmission.  
a) voltage                      b) current                      c) light                      d) sound
3. In \_\_\_\_\_, the transmission media is shared between all the computers on a network.  
a) LAN                      b) MAN                      c) WAN                      d) X.25
4. Usually, a \_\_\_\_\_ is used for internetworking purposes.  
a) host                      b) wire                      c) router                      d) joiner
5. \_\_\_\_\_ is a storage area to store emails.  
a) Database                      b) File                      c) Server                      d) Mailbox

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES:**

**(K2)**

6. Which signals are continuous in nature?
7. Define circuit switching.
8. Which device performs all network-related work on a computer connected to a network?
9. What is a bridge ?
10. Which protocol is used for transferring mails over the Internet?

**SECTION – B**

**(5 X 4 = 20 MARKS)**

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

**( K3)**

11. a) Describe the parallel and serial communications.

(OR)

- b) Sketch the Asynchronous and Synchronous communications.

12. a) Describe checksum .

(OR)

- b) Write short notes on network topologies.

13. a) Write short notes on LAN.

(OR)

- b) Sketch the WAN network.

14. a) Write short notes on Repeaters.

(OR)

- b) Examine the functions of IPV6.

15. a) Describe the Domain Name System.

(OR)

- b) Show the UDP packet format.

**SECTION - C**

**(4 X 10 = 40 MARKS)**

**ANSWER ANY FOUR OUT OF SIX QUESTIONS.**

**(K4/K5)**

**(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS:**

16. Discuss the types of multiplexing.
17. Explain the Analog and Digital transmission methods.
18. Discuss the Guided Transmission Medias in detail.
19. Explain the OSI layer functions in detail.
20. How does a router work? Explain
21. Discuss the functions of E-mail.