

1292

**B. C. A. (Third Semester)
EXAMINATION, 2023-24**

**DATA COMMUNICATION AND COMPUTER
NETWORK**

Course Code : BCA-303T

Time : Three Hours

Maximum Marks : 75

Note : (i) All questions are compulsory.

(ii) Answer each part of the first question in not more than 100 words and the remaining questions in 800 words.

(iii) Marks are mentioned against the questions.

1. Answer each of the following questions :

3×5=15

(a) Explain in brief the term 'Noise' in reference to transmission impairments.

(b) What are the advantages and disadvantages of Infrared wireless transmission ?

(c) Explain in brief about the term FTP.

(d) Differentiate between IP address and MAC address.

(e) Differentiate between TCP and UDP Protocols.

2. Answer the following questions : 15

(a) What do you understand about Data Communication ? Explain why both error detection and correction are important for data communication.

Or

(b) What are the various transmission media used in computer networks ? Discuss the wireless transmission media in detail.

3. Answer the following questions : 15

(a) What is a network topology ? Discuss in brief the various network topologies giving their respective suitability.

Or

(b) What do you mean by Switching ? Discuss and distinguish between Circuit switching, Message switching and Packet switching.

4. Answer the following questions : 15

(a) Explain TCP/IP reference model. List the *five* key differences between TCP/IP reference model and OSI reference model.

Or

(b) Explain the Distance Vector Routing Algorithm with an example.

5. Answer the following questions : 15

(a) Explain in detail the concept of flow control and buffering in reference to transport layer.

Or

(b) What do you mean by Multiplexing ? Discuss any *two* types of multiplexing in detail.