

BCA Fourth Semester Examination, May - 2019
(Faculty of Science)**FOURTH PAPER****Data Communication and Net Working**

Paper Code:4641

Time Allowed: Three Hours**Maximum Marks : 70**

No supplementary answer book will be given to any candidate. Hence the candidates should write the answers precisely in the main answer book only.

(Attempt all six questions)

Part I (Question No. 1& 2) is compulsory & Part II (Question No. 3, 4, 5 & 6) has internal choice.

PART-I**1. Answer any 10 questions. Each question carries 1 mark.****10x1= 10**

- a) What do you mean by Data Communication?
- b) What are the key functions of data link layer?
- c) What is Synchronous Transmission?
- d) What do you mean by Noiseless Channels?
- e) What is Ethernet?
- f) What do you mean by Bridges?
- g) What do you mean by Transmission Impairment?
- h) What is MAN?
- i) What are the features of TCP?
- j) What is the purpose of session layer?
- k) What is Network ? Explain characteristics of Networks.
- l) What is SMTP?

2. Attempt all questions. Each question carries 5 marks.**4x5=20**

- a) What are the options and trade – offs involved in designing a LAN?
- b) Discuss features of various standards for physical layers.
- c) What is Congestion? Explain.
- d) What is DNS? Explain the working of a DNS.

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PART-II

UNIT I

3. What do you mean by Topology? Explain various types of Network Topologies. **10**

OR

Explain the different types of Transmission Modes. Write the components of network. **10**

UNIT II

4. What is Multiplexing? Explain different types of Multiplexing. **10**

OR

What do you mean by redundancy with respect to Error Control Techniques? Explain. **10**

UNIT III

5. Differentiate between Adaptive and Non – Adaptive routing algorithm. Explain flooding. **10**

OR

What is Switching? What are the different types of Switching Techniques? Explain. **10**

UNIT IV

6. Differentiate between TCP/IP and OSI reference models in detail. **10**

OR

Explain the following:

4+3+3

- (i) DHCP
- (ii) Bluetooth
- (iii) POP3
