05772

BACHELOR OF COMPUTER APPLICATIONS
(BCA) (Revised)

Term-End Examination, 2019

BCS-041 : FUNDAMENTALS OF COMPUTER NETWORKS

Time : 3 Hours]　　　　　　　　[Maximum Marks : 100

Note : **Question No. 1** is **compulsory**. Attempt **any three** questions from the rest. Use of calculator is allowed.

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1. (a) How the number of turns in UTP cable is related to its performance ? Why shielding of cable is required ? Explain briefly. [7]

   (b) Explain how a wireless network is configured. [6]

   (c) Briefly explain X.25 architecture with the help of a diagram. [8]

   (d) Briefly explain client-server model of network. [5]

(e) What is TCP's sliding window ? Explain Silly Window Syndrome with the help of a diagram.

[7]

(f) What is parity bit method for error detection ? Suppose a bit sequence 110001010111 is received. Assume odd parity bit method is used. Find whether received bit sequence is correct or not. [7]

2. (a) What is IPV 6 ? Explain its needs. How IPV 6 is better than IPV 4 ? [10]

(b) What is count to infinity problem in distance vector routing protocol ? How does it happen ? Explain briefly. [10]

3. (a) What is OSI model ? List all the layers of OSI model and also write two functions of each layer.

[15]

(b) What is problem with PSK ? Explain how it may be solved. [5]

4. (a) What is Packet Switching ? Explain connection less packet switching with the help of a diagram.

[10]

(b) What are Quality of Services (QoS) of network ? Briefly explain any three parameters of QoS. Also list any two techniques to improve QoS. [10]

5. Write short notes on the following : [4×5=20]

(a) Communication Ports

(b) Multiplexing

(c) Authentication and Privacy

(d) Synchronous and Asynchronous Transmission

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