Code : 303503

BCA 5th Semester Exam., 2020

COMPUTER NETWORK, DATA COMMUNICATION AND CLIENT SERVER TECHNOLOGY

Time : 3 hours *Full Marks* : 60

Instructions :

(i) The marks are indicated in the right-hand margin.

*(ii) There are **SEVEN** questions in this paper.*

*(iii) Attempt **FIVE** questions in all.*

*(iv) Question Nos. **1** and **2** are compulsory.*

1. Answer/Choose the correct option of the following (any *six*) : 2×6=12

(a) What do you mean by Computer Network?

(b) What are the different transmission modes?

(c) What do you mean by switched communication?

(d) What is Router?

(e) What is the role of parity check?

(f) Transmission delay does not depend on

(i) packet length

(ii) distance between the routers

(iii) transmission rate

(iv) bandwidth of medium

(g) Define distributed computing system.

(h) RPC is a/an

(i) synchronous operation

(ii) asynchronous operation

(iii) time-independent operation

(iv) channel specific operation

(i) Which of the following is false with respect to TCP?

(i) Connection oriented

(ii) Process-to-process

(iii) Transport layer protocol

(iv) Unreliable

(j) Which is not an application layer protocol?

(i) HTTP

(ii) SMTP

(iii) FTP

(iv) TCP

2. Answer any *three* of the following : 4×3=12

(a) Briefly discuss the different data transfer modes that HDLC defines.

(b) What are segmentation and reassembly? List the advantages of segmentation.

(c) Explain attenuation.

(d) What is ARQ? What are the different versions of ARQ?

(e) What is CSMA/CD? Briefly explain how it works.

3. List the services provided by each layer of OSI model. 12

(Turn Over)

4. Explain CRC mechanism of error detection. Why is it effective and popular?

5. What is multiplexing? Explain FDM.

6. Draw and explain IPv4 packet format.

7. Discuss the various issues in designing distributed system.

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