BACHELOR OF COMPUTER APPLICATION (BCA)
Term-End Examination
December, 2020

BCS-061 : TCP/IP PROGRAMMING

Time : 2 Hours   *Maximum Marks : 60*

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

1. (a) Discuss the advantages of UDP over TCP.   5

   (b) Discuss the IP datagram format in detail. 7

   (c) Explain the link state routing algorithm and mention the process for finding the optimal path.   8

   (d) With the help of proper syntax, explain the 'listen' system cell mentioning its use.   5

   (e) With the help of a diagram, briefly discuss the layers of TCP/IP Protocol suite.   5

2. (a) Define the following :   5

   (i)   Byte ordering

   (ii) Structure of socket address

   (b) Differentiate the following :   5

   (i)   Broadcasting *vs.* Multicasting

   (ii) Subnetting *vs.* Supernetting

3. (a) Explain   various   security   levels
       implemented in SNMP.   5

   (b) Assume a subnet mask '255.255.0.0' is
       assigned to an address of Class B, how
       many hosts are possible per subnet and
       how many subnets are possible ?   5

4. (a) Discuss about the following briefly : 5

   (i)   Distance Vector Routing

   (ii) Unicasting

   (b) Draw and explain the 3-way handshaking
       mechanism used by TCP for connection
       establishment.   5

5. (a) Define a Socket. Write the difference(s) between Active and Passive sockets. 5

   (b) Close( ) and shutdown( ) functions are used in sockets. How these function cells differ ? 5

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