Reg. No. | | | | | | | | | |

BCACAC 262

Credit Based Fourth Semester B.C.A. Degree Examination, April /May 2017
(New Syllabus – Common to all Batches)
PRINCIPLES OF TCP/IP

Time : 3 Hours Max. Marks : 80

Note : *Answer **any ten** questions from Part – **A** and **one full** question from **each** Unit of Part – **B**.*

PART – A

1. a) Expand ARPANET and NSFNET. **(10×2=20)**
   b) What is loopback address ? Why it is used ?
   c) List any two functions of IP.
   d) What are the functions of HELLO protocol ?
   e) Expand TCP and BGP.
   f) What is internet Domain Name System ?
   g) What do you mean by UDP multiplexing ?
   h) What is the purpose of Telnet ?
   i) Expand SMTP. Mention its purpose.
   j) What is the purpose of Post Office Protocol ?
   k) What is the purpose of MIME protocol ?
   l) What is multicast address ?

PART – B

Unit – I

2. a) Write a note on organization of IAB.
   b) Explain three primary classes of IP addresses.
   c) Explain address resolution through direct mapping. **(5+5+5)**

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3. a) Explain the TCP/IP reference model.
   b) What is reverse address resolution protocol ? Explain.
   c) Write a note on evolution of open networks. **(5+5+5)**

Unit – II

4. a) Explain IP routing algorithm.
   b) What is BGP ? Explain any four characteristics of BGP.
   c) What is next-hop routing ? Explain with example. **(5+5+5)**
5. a) What is RIP ? Explain the working of RIP.
   b) What is subnet addressing ? Explain.
   c) Write a note on :
      i) HELLO protocol
      ii) OSPF protocol. **(5+4+6)**

Unit – III

6. a) Explain the format of UDP datagram.
   b) Explain how TCP establishes connection using 3 way hand shake.
   c) Explain how domain name caching works. **(5+5+5)**
7. a) Explain sliding window technique with a diagram.
   b) What are the advantages and disadvantages of TCP acknowledgment scheme ?
   c) What is the use of IGMP in multicasting ? Explain its phases. **(6+4+5)**

Unit – IV

8. a) What is FTP ? Explain the process model with diagram.
   b) What is NFS ? Explain NFS implementation with diagram.
   c) Write a note on TFTP. **(6+5+4)**
9. a) What is SMTP ? Explain with its working.
   b) Give the format of IPv6 base header. Explain its fields.
   c) Write a note on Internet Message Access Protocol. **(5+6+4)**
