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

**BCACAC 262**

# Credit Based IV Semester B.C.A. Degree Examination, April/May 2015
## (New Syllabus) (2013-2014 Batch Onwards)
## 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 IRTF and CSNET. **(10×2=20)**
   b) What is loopback address ? Why is it used ?
   c) Define internet protocol.
   d) What is indirect delivery of datagram ?
   e) Name the contents of routing table.
   f) What is subnet mask ?
   g) Expand IMAP and MIME.
   h) What is internet domain name system ?
   i) What is the purpose of Telnet ?
   j) What are name servers ?
   k) Give the general structure of if IPv6 datagram.
   l) What is the purpose of POP ?



PART – B

**Unit – I**

2. a) What is IAB ? Explain the organization of IAB.
   b) Explain three primary classes of IP addresses.
   c) Explain the TCP/IP reference model. **(4+6+5)**

**P.T.O.**

3. a) Write a note on evolutionary history of internet services.
   b) What is reverse address resolution protocol ? Explain.
   c) Write a short note on : (i) Dotted decimal notation (ii) Direct broadcast address. **(5+4+6)**

## Unit – II

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

## Unit – III

6. a) Explain the format of UDP datagram.
   b) What is Karn's algorithm. Explain.
   c) Briefly explain the steps involved in Domain name resolution. **(5+4+6)**
7. a) What is sliding window technique ? Explain its advantages.
   b) Explain different fields of Domain server message format.
   c) Write a note on send-side silly window avoidance. **(6+6+3)**

## Unit – IV

8. a) What is FTP ? Explain FTP process model with diagram.
   b) List and explain any five features of IPv6.
   c) Write a note on SMTP. **(6+5+4)**
9. a) Give the format of IPv6 base header. Explain its fields.
   b) What is NFS ? Explain NFS implementation with diagram.
   c) Write a note on TFTP. **(6+5+4)**

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