

315321

25226

3 Hours / 70 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Assume suitable data, if necessary.
(6) Use of Non-programmable Electronic Pocket Calculator is permissible.
(7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following : 10
- a) State the Subnet Address.
 - b) Define Routing table.
 - c) State different applications of UDP.
 - d) State the need of VOIP protocol.
 - e) Define:
 - i) Inter-domain routing
 - ii) Intra domain routing
 - f) State the transmission modes of FTP.
 - g) State the concept of fragmentation in IPv4.

P.T.O.

- 2. Attempt any THREE of the following : 12**
- a) Explain working of TLS (Transport Layer Security) along with its applications.
 - b) Describe flow control under SCTP.
 - c) Explain distance vector routing with Example.
 - d) Describe Features of OSPF. (Any four)
- 3. Attempt any THREE of the following : 12**
- a) Distinguish between dynamic routing and static routing on the basis of configuration, security, cost and routing protocols.
 - b) List Intra-domain multicast protocol. Explain any one in detail.
 - c) Differentiate between IPv4 and IPv6. (Any 4 points)
 - d) Draw and explain TCP segment structure.
- 4. Attempt any THREE of the following : 12**
- a) Explain Address Resolution Protocol (ARP) with neat diagram.
 - b) Explain various congestion control methods of transport layer.
 - c) Describe the RIP message format along with its features.
 - d) Explain:
 - i) Post Office Protocol (POP)
 - ii) Internet Message Access Protocol (IMAP)
 - e) Describe the HTTP Response message format.
- 5. Attempt any TWO of the following : 12**
- a) Explain wireless network with respect to:
 - i) Types of wireless network
 - ii) Working of wireless network
 - iii) Benefits of wireless network
 - b) Explain Software-Defined Networking (SDN) Architecture, Working, Applications.
 - c) With the help of diagram, explain architecture of WWW.

6. Attempt any TWO of the following : 12

- a) Explain Voice-over Internet Protocol (VoIP), How VoIP works?
And its Services.
 - b) Explain the working of PGP along with the suitable diagram.
 - c) For the given IP address: 193.168.10.1
find:-
 - i) The class of IP address
 - ii) Identify Network address
 - iii) Identify Host address
 - iv) Identify First address.
 - v) Identify Last address
 - vi) Find subnet address.
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