Code No: RR411204 **Set No.1**

IV B.Tech. I Semester Regular Examinations, November -2005
NETWORK PROTOCOL
(Information Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) What is Internet working. Explain the TCP / IP Internet. [4]
   (b) Discuss any 4 Application level, internet services and Network level Internet services. [12]
2. (a) Explain the TCP/ IP 5-layer reference model. Compare it with the ISO 7-layer reference model. [10]
   (b) Compare and contrast tagged data format used by ASN.1 presentation scheme with untagged format used by XDR. [6]
3. (a) Explain the ICMP Message Format. Explain the Communication provided by the ICMP among routers and hosts. [8]
   (b) Explain how transparent routers and proxy ARP conserve IP addresses [8]
4. (a) What are the differences between Protocol parts and process identifiers. Compare their advantages and disadvantages. [6]
   (b) Explain the TCP state transition diagram for connection establishment and termination. [10]
5. (a) What are the chief characteristics of BGP protocol. [8]
   (b) Explain the OPEN,UPDATE and NOTIFICATION messages of BGP protocol. [8]
6. (a) Explain Routing Information Protocol(RIP) operation and limitation. [8]
   (b) Explain the heuristics that can be used in HELLO protocol. [8]
7. (a) What is the hierarchical naming scheme offered by the Internet Domain name system. [8]
   (b) Compare POP3 and IMAP Protocols. [8]
8. (a) What is HTTP. Explain HTTP support for Proxy services, Caching and Persistent connection. [8]
   (b) Explain the RTP message format and operater of RTCP. [8]

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Code No: RR411204 **Set No.2**

IV B.Tech. I Semester Regular Examinations, November -2005
NETWORK PROTOCOL
(Information Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) Compare circuit switched and packet switched network communication. [8]
   (b) What is tunneling. What are its advantages and disadvantages. [8]
2. (a) What are the disadvantages of Protocol Layering. [6]
   (b) What is the purpose of caching in ARP. Explain the typical implementation of ARP. [10]
3. (a) What is classless addressing. Explain a typical implementation of CIDR to store and look up routes. [10]
   (b) What are the chief characteristics of UDP protocol. [6]
4. (a) What are the restriction of Exterior gateway protocols. [8]
   (b) Explain the three types of messages supported by BGP. [8]
5. (a) What are the two main technologies used to provide communication between hosts in different address domain. Elaborate. [10]
   (b) What is multicasting? Explain multicast extensions to OSPF. [6]
6. (a) Explain how heterogenity of computers and operating systems is accomodated in TELNET. [8]
   (b) Explain the hierarchical naming and Address Resolution in DNS. [8]
7. (a) What are the two main protocols for main retrieval and mail box manipulation? Explain. [8]
   (b) Explain a typical NFS(Network File System) implementation. [8]
8. (a) Explain the structure and representation of MIB object names in SNMP. What are the new features in SMMPV3. [8]
   (b) Explain the interdependencies of major TCP / IP protocols. [8]

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Code No: RR411204 **Set No.3**

IV B.Tech. I Semester Regular Examinations, November -2005
NETWORK PROTOCOL
(Information Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) TCP / IP can be used over a variety of physical networking technologies. Justify. [10]
   (b) What is network byte order. [6]
2. (a) What are the major differences between ISO and Intenet Layering. [8]
   (b) What is an RARP server? Briefly explain the working of RARP and ARP protocols. [8]
3. (a) What is IP routing? Explain the IP routing Algorithm. [8]
   (b) How is destination Rechability and status checked in an Internet. [8]
4. (a) What is IP multi casting? Explain data driven multi cast routing. [10]
   (b) Explain reliable multi cast schemes. [6]
5. (a) What is Network Address Translation (NAT)? Explain the interaction of NAT with ICMP and application. [10]
   (b) What are the limitations of HELLO protocol? Can any heuristics be used to overcome these limitation. [6]
6. (a) Explain DNS Message Format and DNS adress Resolution. [8]
   (b) What are the basic services provided by TELNET? [8]
7. (a) Explain how concurrent access by multiple clients is supported by FTP. [8]
   (b) Explain the SMTP standard for exchange of mails. [8]
8. (a) Explain the architectural management of network management in TCP / IP. [8]
   (b) What are its characteristics of HTTP. [8]

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Code No: RR411204 **Set No.4**

IV B.Tech. I Semester Regular Examinations, November -2005
NETWORK PROTOCOL
(Information Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. (a) What is internetworking. Explain the application level and networks level interconnection. [8]
   (b) What is an IP addressing. Exactly how many class A,B,C network can exist? How many hosts can a network in each class have? [8]
2. (a) Explain the boundaries in the TCP / IP model. [6]
   (b) What is Internet datagram? Explain the fields in datagram which support fragmentation control, handling transmission errors, monitor and control an internet. [10]
3. (a) Explain the options filed of IP datagram used for controlling and monitoring an Internet. [8]
   (b) Explain subnet addresses using a suitable example. [8]
4. (a) What are the major goals of DSPF. Elaborate. [10]
   (b) Explain how interfacing is done between RIP and BGP. [6]
5. (a) Explain the purpose of Virtual Private Network. Discuss VPN addressing and routing. [8]
   (b) What is multi casting. Explain Core Based Trees (CBT) and Protocol Independent Multi cast (PIM). [8]
6. (a) What are the three basic services provided by TELNET protocol? Elaborate. [8]
   (b) Explain the major features of FTP protocol. [8]
7. (a) Explain the relationship between internet working and mail. [8]
   (b) What is the purpose of POP and IMAP protocals. [8]
8. (a) Explain IP telephony and signaling. [8]
   (b) Elaborate the functionality of SNMP protocol. [8]

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