* R N - 7 3 6 7 / 1 0 0 *

RN-7367

B. E. - IV (Sem. VIII) (Computer) Examination

May / June – 2010

Computer Networks - II

Time : **3** Hours] [Total Marks : **100**

Instructions :

(1)

નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of ☛ signs on your answer book.

Name of the Examination :

☛ B. E. - 4 (Sem. 8) (Computer)

Name of the Subject :

☛ Computer Networks - 2

☛ Subject Code No. : 7 3 6 7 ☛ Section No. (1, 2,.....) : 1&2

Seat No. :

Student's Signature

(2) Use **separate** answer sheet for each sections.

(3) Make assumption whenever required.

(4) Numbers on the right indicate marks.

SECTION - I

1 (a) Answer the following questions. Each question carried one mark : **10**

(1) What are the responsibilities of Network layer ?

(2) How many addresses are available in class D ?

(3) What is the maximum number of subnets for class B with mask 255.255.192.0 ?

(4) Classful addressing is a special case of classless addressing. True or False ?

(5) What is the maximum size of TCP header ?

(6) The following is dump of a UDP header in hexadecimal format :

06 32 00 0D 00 1C E2 17

What is the length of data ?

(7) Define direct delivery.

(8) Is it necessary to include checksum in UDP ?

(9) What is piggybacking ?

(10) What is proxyARP ?

(b) An ISP is granted a block of addresses starting with 120.60.4.0./20. The ISP wants to distribute these block to 100 organizations with each organization receiving 8 adresses only. Design the subblocks and give the slash notation for each sub-block. Find out how many adresses are still available after these allocations. **10**

2 (a) Explain CIDR notation with example. **5**

(b) Explain difference between ARP and RARP. **5**

(c) Explain IGMP operations in brief. **5**

3 (a) Explain various ICMP queries in detail. **8**

(b) What is the use of Keepalive timer of TCP ? **2**

(c) Explain uses of UDP. **5**

OR

3 (a) Discuss services provided by TCP. **7**

(b) Explain option types of IP. **8**

SECTION - II

4 (a) Answer the following questions : (Each question carries one mark) **10**

(1) In TCP, a SYN segment can not carry data, but it consumes one sequence number during connection establishment. Is it true or false ?

(2) Which protocols can be used for inter domain routing ?

(3) In RIP, periodic timer is set to _____ seconds.

(4) What is direct broadcast address ?

(5) How does BOOTP provide error control ?

(6) What is FQDN ?

(7) Which control characters are used for option negotiation in TELNET ?

(8) FTP needs _____ TCP connections.

(9) MIME stands for _____.

(10) Which protocols co-operate each other for management on the internet ?

(b) (1) What are the differences between distance vector routing and path vector routing ? **4**

(2) Briefly discuss BGP packets. **6**

5 (a) Why is BOOTP protocol required ? "BOOTP client uses the well-known port 68, which is unusual." Comment on this statement. **7**

(b) Which are the different FTP commands ? Discuss them briefly. **8**

6 (a) Discuss different types of documents in the WWW. **7**

(b) Discuss SNMP packets (PDUs). **8**

OR

6 (a) What is three-node instability ? Explain with diagram. **5**

(b) Explain following terms with respect to domain name space : **5**

(1) Label

(2) Domain

(3) Zone.

(c) Briefly explain the control characters that can be used to control the remote server in TELNET. **5**