

GANPAT UNIVERSITY**B. Tech. Semester: VI (Computer Engineering/Information Technology)****Regular Examination May – June 2013****2CE602/2IT602 Network Protocols & Programming****Time: 3 Hours****Total Marks: 70**

- Instruction:**
- 1 Figures to the right indicate full marks
 - 2 Each section should be written in a separate answer book
 - 3 Be precise and to the point in your answer

Section – I**Que. – 1 Answer the following.**

- A. Explain forwarding techniques of the packets in detail. 6
- B. Explain ARP packet format in brief. 6

OR**Que. – 1 Answer the following.**

- A. Explain IP datagram in brief. 6
- B. Explain types of IGMP messages in detail. 6

Que. – 2 Answer the following.

- A. Explain following query message generated by ICMP. 6
 - a. Router Solicitation or Advertisement
 - b. Echo request or reply
- B. A packet has arrived in which the offset value is 100, the value of HLEN is 5 and the value of the total length field is 100. What is the number of the first byte and the last byte? 3
- C. Explain process to process communication in brief. 2

OR**Que. – 2 Answer the following.**

- A. Explain following error message generated by ICMP. 6
 - a. Source quench
 - b. Redirection
- B. In a datagram, the M bit is zero, the value of HLEN is 5, the value of total length is 200, and the offset value is 200. What is the number of the first byte and number of the last byte in this datagram? Is this last fragment, the first fragment or a middle fragment? 3
- C. Explain: IP Flags 2

Que. – 3 Answer the following.

- A. What is BGP? Why do we use BGP protocol? Explain external and internal BGP. 4
- B. Explain two node instability and three node instability 4
- C. Discuss Reassembly Table and reassembly Module of IP package with algorithm 4

Section – II

- Que. – 4 Answer the following.
- A. Discuss Proxy ARP with suitable example. 6
 - B. Discuss Times in RIP in detail. 6

OR

- Que. – 4 Answer the following.
- A. Explain types of BGP messages in detail. 6
 - B. Discuss RIP message format in detail. 6

- Que. – 5 Answer the following.
- A. Discuss: TELNET 6
 - B. Explain Three-way handshaking mechanism of TCP connection establishment in detail. 5

OR

- Que. – 5 Answer the following.
- A. Discuss: DNS 6
 - B. Explain Three-way handshaking mechanism of TCP connection termination in detail. 5

- Que. – 6 Answer the following.
- A. Differentiate FTP and TFTP. 4
 - B. Differentiate TCP and UDP. 4
 - C. Explain UDP operation in detail. 4

END OF PAPER