



Name :

Roll No. :

Invigilator's Signature :

CS/B.TECH(ECE)/SEM-8/EC-804A/2012

2012

INTERNET TECHNOLOGY

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for the following :

10 × 1 = 10

- i) UDP is
 - a) connection oriented b) connection-less
 - c) both (a) and (b) d) none of these.
- ii) Which central authority is responsible for allocating IP addresses on the Internet ?
 - a) IETF b) IANA
 - c) IEEE d) None of these.
- iii) Which network address is belongs to group C ?
 - a) 123.0.0.0 b) 221.45.71.0
 - c) 141.14.0.0 d) none of these.



GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. What is Net Mask ? How is it implemented to obtain the Network address ? Explain with an example. $2 + 3$
3. What are ARP and RARP ? Explain in brief the ARP packet format. $2 + 3$
4. What is an 'Autonomous system' ? Categorize IGP and EGP with respect to an autonomous system. $2 + 3$
5. Explain Internet datagram format with a neat diagram. 5
6. What is VLAN ? How does it differ from physical LAN ? $3 + 2$

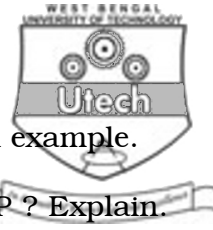
GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. a) What do you mean by 'Classful' and 'Classless' addressing ?
- b) What is a 'Unicast' and a 'Multicast' address ? How can you differentiate between them ?
- c) A block of address is granted to a small organization. We know that one of the addresses is 205. 16. 37. 39/28. Find out the first address, last address and total number of addresses in the block.
- d) Explain in brief the IPv4 datagram format with diagram.

$3 + 4 + 3 + 5$



8. a) Explain Distance Vector Routing with an example.
b) How many types of timer are used in RIP ? Explain.
c) Explain the different types of the packet used in OSPF.
 $6 + 4 + 5$
9. a) Differentiate between Circuit switching and Packet switching.
b) What is WAN ? Differentiate between High speed dedicated WAN and Circuit switched WAN.
c) Explain the concept of 'Frame relay'. $4 + 5 + 6$
10. a) What is the difference between a 'Broadband' and a 'Dial-up' connection ?
b) What are 'Wi-Fi' and 'Wi-Max' ?
c) Explain in brief the implementation of DNS.
d) What do you mean by a 'Packet-Filter' firewall and a 'Proxy' firewall ? $3 + 3 + 5 + 4$
11. Write short notes on any *three* of the following : 3×5
- a) VPN
 - b) RIP
 - c) TELNET
 - d) HELLO
 - e) BOOTP.

