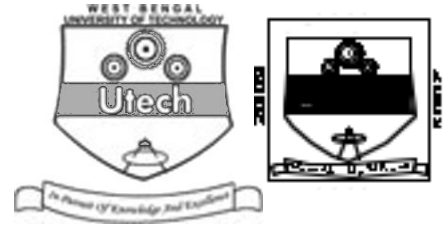


CS/B.Tech (IT)/(Supple)/SEM-7/IT-701/09 INTERNETWORKING (SEMESTER - 7)



1.
Signature of Invigilator

2.
Signature of the Officer-in-Charge

Reg. No.

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Roll No. of the Candidate

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CS/B.Tech (IT)/(Supple)/SEM-7/IT-701/09 ENGINEERING & MANAGEMENT EXAMINATIONS, JULY - 2009 INTERNETWORKING (SEMESTER - 7)

Time : 3 Hours]

[Full Marks : 70

INSTRUCTIONS TO THE CANDIDATES :

- This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.
- In **Group - A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.
 - For **Groups - B & C** you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of **Group - B** are Short answer type. Questions of **Group - C** are Long answer type. Write on both sides of the paper.
- Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.
- Read the instructions given inside carefully before answering.
- You should not forget to write the corresponding question numbers while answering.
- Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.
- Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.**
- You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.
- Rough work, if necessary is to be done in this booklet only and cross it through.

No additional sheets are to be used and no loose paper will be provided

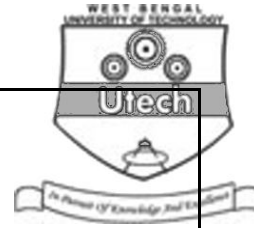
FOR OFFICE USE / EVALUATION ONLY

Marks Obtained

Question Number	Group - A					Group - B					Group - C					Total Marks	Examiner's Signature
Marks Obtained																	

.....
Head-Examiner / Co-Ordinator / Scrutineer

S-53045 (31/07)



DO NOT WRITE ON THIS PAGE

**CS/B.Tech (IT)/(Supple)/SEM-7/IT-701/09****INTERNETWORKING****SEMESTER - 7**

Time : 3 Hours]

[Full Marks : 70

GROUP – A**(Multiple Choice Type Questions)**1. Choose the correct alternatives for any *ten* of the following : 10 ∞ 1 = 10

i) Which of the following class of IP address is used for multicast addressing ?

a) Class A

b) Class E

c) Class D

d) Class B.

ii) A TCP/IP protocol that allows a host to find its Internet address given its physical address.

a) ARP

b) RARP

c) RPF

d) RPM.

iii) DQDB (distributed queue dual bus) uses

a) IEEE 802.6 standard for MAN

b) IEEE 802.6 standard for LAN

c) IEEE 802.3 standard for MAN

d) IEEE 802.3 standard for LAN. **S-53045 (31/07)**



iv) The position of SSL in TCP/IP protocol suite

- a) between transport and internet layer
- b) between data link and physical layer
- c) between application and transport layer
- d) none of these.

v) Transaction in ATM is

- a) asynchronous
- b) simultaneous
- c) synchronous
- d) none of these.

vi) Which polynomial represents a divisor 10100111 for CRC checker ?

- a) $x^7 + x^5 + x^2 + x + 1$
- b) $x^6 + x^4 + x^3$
- c) $x^7 + x^6 + x^3 + x$
- d) None of these.

vii) The field of the IGMP message is all zeros in a query message.

- a) version
- b) type
- c) checksum
- d) group address.

viii) RIP is based on

- a) link state routing
- b) distance vector routing
- c) path vector routing
- d) none of these.



ix) Which one of following protocol is an interdomain routing protocol ?

- | | |
|---------|-------------------|
| a) RIP | b) BGP |
| c) OSPF | d) None of these. |



x) Which one of the following link in case of OSPF protocol uses only one router ?

- | | |
|-------------------|------------------------|
| a) Transient link | b) Point-to-point link |
| c) Stub link | d) Virtual link. |

xi) Which of the following is not a Dynamic routing protocol ?

- | | |
|---------|----------|
| a) IGRP | b) RIP |
| c) ICPM | d) OSPF. |

xii) IP header size is

- | | |
|-------------------|--------------------|
| a) 20 to 60 bytes | b) 20 bytes |
| c) 60 bytes | d) Depends on MTU. |

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.

3 ∞ 5 = 15

2. a) What is network address ?

b) Find the network address – where given address is 23.56.7.91.

c) What do you mean by Multicast address ?

2 + 2 + 1

3. Write a short note on ARP and RARP.

$2\frac{1}{2} + 2\frac{1}{2}$

S-53045 (31/07)



4. Describe different types of link in OSPF protocol. 5
5. Explain RIP updating procedure with an example. 5
6. a) What is subnetting ?
- b) A router inside the organization receives a packet with destination address 190.240.33.91. Show how it finds the subnetwork address to route the packet.
- c) What is classless addressing ? 2 + 2 + 1



GROUP – C

(Long Answer Type Questions)

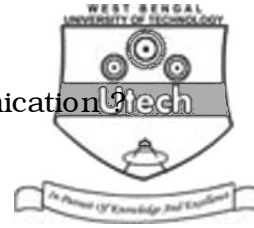
Answer any *three* of the following.

3 ∞ 15 = 45

7. a) What is Internetworking ? What are the basic needs for an Internet ? 5
- b) Discuss different types of services provided by the Internet. 5
- c) Briefly describe the architecture of an ATM network. 5
8. a) What is the firewall ? 2
- b) Describe the advantages of using firewall. 2
- c) How many types of firewall are available ? 2
- d) What is an Application Gateway ? 3
- e) Discuss the functions of NAT. 3
- f) What is SSL ? Write down the name of the sub-protocols used by SSL. 3



9. a) What is TELNET ? 2
- b) How NVT character set helps in TELNET communication? 3
- c) What is DHCP ? 2
- d) State disadvantages of RARP, which led to the development of BOOTP. 3
- e) Discuss different types of messages used by BGP. 5
10. a) Describe ARP packet format. 5
- b) Describe IP datagram format. 5
- c) Explain distance vector routing protocol with example. 5
11. Write short notes on the any *three* of the following : 3 ∞ 5
- a) Default mask and subnet mask
- b) Virtual private network
- c) DNS
- d) SLL
- e) BOOTP.



END