

AU – 2724

Fifth Semester B. E. (Information Technology) Examination

INTRODUCTION TO COMPUTER NETWORK

Paper – 5 FEIT 05

(USC – 10728)

P. Pages : 3

Time : Three Hours]

[Max. Marks : 80

- Note :** (1) Assume suitable data wherever necessary.
(2) Illustrate your answer wherever necessary with the help of neat sketches.
(3) Use pen of Blue/Black ink/refill only for writing the answer book.

1. (a) What are the steps for making straight through patch cables ? Explain in brief. 6
- (b) What is the network topology ? Explain following topologies :
- (1) Star
 - (2) Ring
 - (3) Bus
 - (4) Mesh 8

OR

2. (a) Explain the terms :
- (1) NIC
 - (2) MAC
 - (3) LAN
 - (4) WAN 8
- (b) Explain the term Horizontal cabling. 6
3. (a) Explain Different types of computer memories. 7

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- (b) Why is boot sequence order important ? What is the procedure for entering the boot sequence on computer ? 6

OR

4. (a) Compare
(i) FAT 16 and FAT 32
(ii) FAT 32 and NTFS. 6
(b) Discuss the need of device drivers for the hardware. 7
5. (a) Explain OSI model. 7
(b) Explain how a switch learns MAC address, and where does a switch stores the address. 6

OR

6. (a) Explain concept of Gateway and Auto negotiation in detail. 7
(b) Explain term Bridge and switch in detail. 6
7. (a) Explain TCP/IP model. 6
(b) Convert :
(A) 11000000 10101000 00100000 00001100 into respective decimal.
(B) 192.168.5.20 into respective Hexadecimal. 8

OR

8. (a) Explain the terms in detail :
(a) IPv4 Addressing
(b) IPv6 Addressing
(c) Subnet. 6

- (b) Given a network address 10.0.0.0, divide the network into 8 subnets. Specify the subnet mask, the network and broadcast address, and the number of usable hosts/subnet. 8

9. (a) Describe the layer 3 network using router to interconnect LAN with suitable example and default gateway. 7
(b) Explain trouble shooting the routing interface. 6

OR

10. (a) Discuss router configuration in a network. 7
(b) Explain the following :—
(a) The connection of console port with signal and pin assigned.
(b) RS - 232
(c) DB - 9
(d) DB - 25 6

11. (a) Describe OSPF routing protocol ? State its advantages and disadvantages. 7
(b) What is the difference between static and dynamic routing protocol ? 6

OR

12. (a) What is IGRP ? Explain features administrative distance and as number. 6
(b) Explain in detail RIP protocol and also contiguous and non-contiguous work. 7

