

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2022  
(Fourth Semester)

Branch – SOFTWARE SYSTEMS  
(Five year Integrated)

COMPUTER NETWORKS & TCP/IP

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

1. The OSI model defines layers 1,2 and 3 as the \_\_\_\_\_ layers.  
(i)physical support (ii)network support (iii)user support (iv)transport
2. In \_\_\_\_\_ conversion we are representing analog information as a series of 0's and 1's.  
(i)analog-to-analog (ii)analog-to-digital (iii)digital-to-analog (iv)digital-to-digital
3. \_\_\_\_\_ switching assumes that the data rate in both directions is the same.  
(i)circuit (ii)packet (iii)message (iv)b and c
4. Which of the following is an error detection method?  
(i)multiplexing (ii)redundancy (iii)reciprocity (iv)conditioning
5. The data link control portion of most LAN protocols in use today is based on \_\_\_\_\_.  
(i)ANSI (ii)FDDI (iii)SDLC (iv)HDLC
6. Sliding window protocol has \_\_\_\_\_ types.  
(i)2 (ii)3 (iii)6 (iv)8
7. An IP packet is called a \_\_\_\_\_.  
(i)user datagram (ii)segment datagram (iii)datagram (iv) datalink frame
8. In distance vector routing, the updating packets are sent \_\_\_\_\_.  
(i) periodically (ii)when there is a change (iii)either a or b (iv)neither (i) nor (ii)
9. DHCP stands for  
(i) Dynamic Host Configuration protocol (ii) Digital Host Communication Provider  
(iii) Digital Host Communication Protocol (iv) Dynamic Host Configuration Provider
10. Segmentation and reassembly are functions of the \_\_\_\_\_ layer.  
(i)physical (ii)datalink (iii)transport (iv)network

SECTION - B (25 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 5 = 25)

11. a)What is a Network? Discuss its goals and applications.  
(OR)  
b) Difference between Analog and Digital data transmission.
12. a)What is Multiplexing? Explain its types.  
(OR)  
b) Explain in detail about CRC.
13. a)Explain about Sliding window protocol and its types with neat sketch.  
(OR)  
b) What is meant by Internetworking? Explain about its units in detail.

Cont...

14. a) Explain about Internet protocol with examples.

(OR)

b) Discuss about Distance Vector Routing.

15. a) Elaborate UDP and application.

(OR)

b) Explain about SMTP and its working.

**SECTION-C (40 MARKS)**

Answer Any **THREE** Questions

ALL Questions Carries **EQUAL** Marks

Question No. 16 is compulsory

(5 X 8 = 40)

16. Discuss in detail about OSI reference model.

17. a) Explain the concept of Switching in detail.

(OR)

b) Illustrate about Hamming code with an example.

18. a) Outline Ethernet and its properties with neat sketch.

(OR)

b) Elucidate about Switch and Bridge.

19. a) Elaborate about ICMP with an example.

(OR)

b) Explain about OSPF and its states.

20. a) Give a detail view about Transport Layer.

(OR)

b) Explain about DHCP in detail.

Z-Z-Z END