Degree   : B.Tech   Specialisation: IT
Year/Sem: III/6TH SEM   Date:28/04/2017
Duration   : 3 Hours   Max. Marks: 100

Register Number

Instructional Objective covered in this test:
1. Understand the transport layer protocol and its characteristics.
2. Work with client server sockets and develop related applications to communicate with each other.

3. Learn and Understand IPV6 and wide area network technologies.

Student outcome covered in this test:
    1. An ability to use and apply current technical concepts and practices in the core information technologies(Outcome j)
        Sub-Outcomes:
        j1). An ability to use and apply current technical concepts in the core information technologies
        j2) An ability to use and apply current practices in the core information technologies

2.An understanding of the best practices and standards and their application(Outcome m)
        Sub-Outcomes:
        m1):ability to understand best practices and applying them in applications.
        m2): ability to understand the standards available in various fields of computing and following it in an appropriate manner.

Mark Allotment

Question No	Instructional Objectives	Course Outcome	Sub Outcome	Marks		Outcome Met/Not Met	Mark Scored (/100)
				Max Marks	Obtained Marks		
1	IO2	m	m1	1			
2	IO3	j	j2	1			
3	IO2	m	m1	1			
4	IO2	m	m1	1			
5	IO3	j	j2	1			
6	IO3	J	j2	1			
7	IO3	j	j2	1			
8	IO3	j	j2	1			
9	IO3	j	j2	1			
10	IO3	j	j2	1			
11	IO3	j	j2	1			
12	IO3	j	j2	1			

13	IO3	j	j2	1			
14	IO3	j	j2	1			
15	IO3	j	j2	1			
16	IO3	j	j2	1			
17	IO3	j	j2	1			
18	IO3	j	j2	1			
19	IO3	j	j2	1			
20	IO3	j	j2	1			
21	IO3	j	j1	4			
22	IO3	m	m1	4			
23	IO2	m	m2	4			
24	IO3	m	m1	4			
25	IO3	m	m1	4			
26	IO2	m	m2	4			
27	IO3	j	j2	4			
28a/b	IO2	m	m2	12			
29a/b	IO3	j	j2	12			
30a/b	IO3	m	m2	12			
31a	IO3	j	j2	12			
31b	IO3	j	j1	12			
32a/b	IO2	m	m1	12			

OUTCOMES

MET	NOT MET

Staff Signature with date

Degree : B.Tech   Specialisation: IT
Year/Sem: III/6TH SEM   Date:28/04/2017
Duration : 3 Hours   Max. Marks: 100

Part-A   [Answer all the Questions]   (20x1=20 Marks)

1. In _____ representation, the most significant byte is stored in the starting address.
        a. big-endian   b. little-endian   c. middle- endian   d. east endian

2.In the IPv6 header, the traffic class field is similar to which field in the IPv4 header?
        a.fragmentation field   b.ToS field   c.TTL   d.flags

3. Network programming needs information to be in _____ byte order.
        a. host   b. Network   c. Client   d. none of the above

4. SOCK_STREAM sockets are used by _____ processes.
        a. UDP   b. TCP   c. SCTP   d. FTP

5. To make addresses more readable, IPv6 specifies _____notation.
        a. dotted decimal   b. hexadecimal colon   c. Decimal   d. Binary

6.X.25 is a -----------
        a. protocol   b. technology   c. Data service   d. Telephone service

7. When two computers using IPv6 want to communicate but the packet must pass through an IPv4 region, which transition strategy should be used?
        a. tunnelling   b. header translation
        c. either tunneling or header translation   d. none of the above

8. Which ATM layer has a 53-byte cell as an end product?
        a. physical   b. ATM
        c. application adaptation   d. none of the above

9. PPP is a _____ layer protocol.
        a. physical   b. data link   c. physical and data link   d. Network

10. ATM is fundamentally a_____
        a. circuit switching   b. packet switching
        c. narrow band   d. none of the above

11.. The x.25 standard specifies a
        a. technique for start-stop data   b. technique for dial access
        c. DTE/DCE interface   d. data bit rate

12.   IPv6 does not use _____ type of address
        a.broadcast   b.multicast   c.anycast   d.none of the above.

13.   Which of the following is not a IPv6 transition mechanisms?
        a.VPN tunneling   b.PPP tunnelling
        c.Teredo tunnelling   d.GRE tunnelling

14. The header length field is eliminated in IPv6 because the length of the header is ----------- in IPV6.
    a.fixed   b.variable   c. Optional   d. none

15. Frame Relay operates in the _____.
    A. physical layer   b. Data link layer   c. Both a & b   d. None

16. The IP protocol uses the _____ sublayer.
    a. AAL1   b. AAL2   c. AAL5   d. None

17. The _____ field in the base header restricts the lifetime of a datagram.
    a. version   b. Priority   c. Hop limit   d. None

18. In the _____ extension header, the destination address changes from router to router.
    a. source routing   b. Fragmentation   c. Authentication   d. Payload

19. x.25 was developed for computer connections used for
    a. terminal connection   b. Timesharing connection c. Both a&b   d. None

20. Internet users use the
    a. High-level Data Link Control   b.Password Authentication Protocol
    c.Multipoint Protocol   d.Point to Point Protocol

Part-B   [Answer Any Five Questions]   (5x4=20 Marks)

21.What is Zero Compression Technique?Write the zero compressed address for the following.
        1334:234:3647:8921:0000:0000:0000:FFFF
22.Difference between circuit switching and packet switching.
23.Define socket.What are the types of socket?
24.Why ATM is called as a cell switching technique?Justify.
25.Draw the LCP frame format.
26.write about the following (i) Hostent structure   (ii) Memcpy ?
27.What are the address types of IPv6?

Part-C   [Answer all the questions]   (5x12=60 Marks)

28a.What is the use of various byte ordering and address conversion functions in socket programming with example.
                                                                      (12 marks)
                              [OR]
28b.Explain the various socket system calls with syntax   (12 marks)
29a.What are the various tunneling techniques used in IPv6.   (12 marks)
                              [OR]
29b.i.Draw and explain IPV6 header .   (8 marks)
        ii.Compare IPv4 and IPV6 header   (4 marks)
30a.Illustrate the working of ATM protocol   (12 marks)
                              [OR]
30b.Write notes on HDLC protocol   (12 marks)
31.i .What are the various IPV6 routing protocols .   (6 marks)
    ii. Write the steps for IPv6 address auto configuration   (6 marks)
                              [OR]
31.b. What are the various translation techniques used in IPv6   (12 marks)
32.a.Write the socket program to transfer a file from server to client   (12 marks)
                              [OR]
32.b. Write a socket program for TCP client server communication   (12 marks)