**United College of Engineering and Research, Allahabad**

**Department of Computer Science & Engineering**

**B.Tech CSE- VI Semester**

**Set-4**

**Course Name:** Computer Network  **AKTU Course Code:** KCS-603

1. Transport layer aggregates data from different applications into a single stream before passing it to \_\_\_\_\_\_\_\_\_\_\_\_  
   a) network layer  
   b) data link layer  
   c) application layer  
   d) physical layer
2. Which of the following are transport layer protocols used in networking?  
   a) TCP and FTP  
   b) UDP and HTTP  
   c) TCP and UDP  
   d) HTTP and FTP
3. User datagram protocol is called connectionless because \_\_\_\_\_\_\_\_\_\_\_\_\_  
   a) all UDP packets are treated independently by transport layer  
   b) it sends data as a stream of related packets  
   c) it is received in the same order as sent order  
   d) it sends data very quickly
4. Transmission control protocol \_\_\_\_\_\_\_\_\_\_\_  
   a) is a connection-oriented protocol  
   b) uses a three way handshake to establish a connection  
   c) receives data from application as a single stream  
   d) all of the mentioned
5. An endpoint of an inter-process communication flow across a computer network is called \_\_\_\_\_\_\_\_\_\_  
   a) socket  
   b) pipe  
   c) port  
   d) machine
6. Socket-style API for windows is called \_\_\_\_\_\_\_\_\_\_\_\_  
   a) wsock  
   b) winsock  
   c) wins  
   d) sockwi
7. Which one of the following is a version of UDP with congestion control?  
   a) datagram congestion control protocol  
   b) stream control transmission protocol  
   c) structured stream transport  
   d) user congestion control protocol
8. Transport layer protocols deals with \_\_\_\_\_\_\_\_\_\_\_\_  
   a) application to application communication  
   b) process to process communication  
   c) node to node communication  
   d) man to man communication
9. Which of the following is a transport layer protocol?  
   a) stream control transmission protocol  
   b) internet control message protocol  
   c) neighbor discovery protocol  
   d) dynamic host configuration protocol
10. What are the functions of the transport layer?  
    a) Multiplexing/ Demultiplexing  
    b) Connection less Services  
    c) Connection oriented service  
    d) Congestion control
11. Which services are provided by transport layer?  
    a) Error control  
    b) Connection oriented service  
    c) Connection less service  
    d) Congestion control
12. TCP and UDP are called \_\_\_\_\_\_\_\_  
    a) Application protocols  
    b) Session protocols  
    c) Transport protocols  
    d) Network protocols
13. \_\_\_\_\_\_\_\_ does not provide reliable end to end communication.  
    a) TCP  
    b) UDP  
    c) Both TCP and UDP  
    d) Neither TCP nor UDP
14. Two broad categories of congestion control are  
    a) Open-loop and Closed-loop  
    b) Open-control and Closed-control  
    c) Active control and Passive control  
    d) Active loop and Passive loop
15. In open-loop control, policies are applied to \_\_\_\_\_\_\_\_\_\_  
    a) Remove after congestion occurs  
    b) Remove after sometime  
    c) Prevent before congestion occurs  
    d) Prevent before sending packets
16. Retransmission of packets must not be done when \_\_\_\_\_\_\_  
    a) Packet is lost  
    b) Packet is corrupted  
    c) Packet is needed  
    d) Packet is error-free
17. In Go-Back-N window, when the timer of the packet times out, several packets have to be resent even some may have arrived safe. Whereas in Selective Repeat window, the sender resends \_\_\_\_\_\_\_\_\_\_\_  
    a) Packet which are not lost  
    b) Only those packets which are lost or corrupted  
    c) Packet from starting  
    d) All the packets
18. Discarding policy is mainly done by \_\_\_\_\_\_\_  
    a) Sender  
    b) Receiver  
    c) Router  
    d) Switch
19. Closed-Loop control mechanisms try to \_\_\_\_\_\_\_\_\_  
    a) Remove after congestion occurs  
    b) Remove after sometime  
    c) Prevent before congestion occurs  
    d) Prevent before sending packets
20. The technique in which a congested node stops receiving data from the immediate upstream node or nodes is called as \_\_\_\_\_\_\_  
    a) Admission policy  
    b) Backpressure  
    c) Forward signaling  
    d) Backward signaling
21. Backpressure technique can be applied only to \_\_\_\_\_\_\_  
    a) Congestion networks  
    b) Closed circuit networks  
    c) Open circuit networks  
    d) Virtual circuit networks
22. The packet sent by a node to the source to inform it of congestion is called \_\_\_\_\_\_\_  
    a) Explicit  
    b) Discard  
    c) Choke  
    d) Backpressure
23. In the slow-start algorithm, the size of the congestion window increases \_\_\_\_\_\_\_\_\_\_ until it reaches a threshold

a) Exponentially

b)Additively

c) Multiplicatively

d) Suddenly

1. The token bucket can easily be implemented with a counter, initialized by

a. 0

b. 1

c. -1

d. -2

1. In Congestion, to define the maximum data rate of the traffic we use

a. Average Data Packet

b. Peak Data Rate

c. Packet Data Rate

d. Average Data Rate

1. In the slow-start algorithm, the size of the congestion window increases exponentially until it reaches

a. 0

b. n-1

c. Threshold

d. n+1

1. In Congestion, the maximum burst size normally refers to the maximum length of time the traffic is generated at the

a. Average Rate

b. Packet Rate

c. Protocol Rate

d. Peak Rate

1. In QoS techniques, packets wait in a buffer (queue) until the node is ready to process them in

a. Out-of-Order Ones

b. Fist-in First out

c. Last-in First-Out

d. First-in-Last-out

1. A leaky bucket algorithm shapes bursty traffic into fixed-rate traffic by averaging the

a. Data Rate

b. Average Rate

c. Traffic Rate

d. Traffic Shaping

1. In the \_\_\_\_\_\_ traffic model, the data rate changes suddenly in a very short time.

a. constant bit rate

b. variable bit rate

c. bursty

d. none of the above

1. Congestion in a network or internetwork occurs because routers and switches have \_\_\_\_\_\_\_.

a. tables

b. queues

c. crosspoints

d. none of the above

1. In a network, when the load is much less than the capacity of the network, the delay is \_\_\_\_\_\_\_\_\_.

a. at a maximum

b. at a minimum

c. constant

d. none of the above

1. In a network, when the load reaches the network capacity, the delay \_\_\_\_\_\_\_.

a. increases sharply

b. decreases sharply

c. remains constant

d. cannot be predicted

1. In a network, when the load is below the capacity of the network, the throughput \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

a. increases sharply

b. increases proportionally with the load

c. declines sharply

d. declines proportionally with the load

1. In \_\_\_\_\_\_\_\_ congestion control, policies are applied to prevent congestion before it happens.

a. open-loop

b. closed-loop

c. either (a) or (b)

d. neither (a) nor (b)

1. In OSI model ICMP belongs to which layer ?

A) Transport Layer.

B) Data Link Layer.

C) Internet Layer.

D) Network Layer.

1. Which protocol used for e-mail ?

A) ICMP.

B) SNMP.

C) SMTP.

D) RIP.

1. Which of the following IP addresses can be used as (a) loop-back addresses?
2. 0.0.0.0
3. 127.0.0.1
4. 255.255.255.255
5. 0.255.255.255
6. An Aloha network uses an 18.2 kbps channel for sending message packets of 100 bits long size. Calculate the maximum throughput.
7. 5999
8. 6900
9. 6027
10. 5027
11. Which of the following is true with regard to the ping command?
12. Ping stands for Packet Internet Generator.
13. The ping command checks the port level connectivity between source destinations end points.
14. Ping summarizes the packet loss and round-trip delay between two IP end points.
15. The ping command activates the RARP protocol of the IP layer.
16. What is the maximum efficiency of pure aloha at G = 1/2?
17. 1.89
18. 17.99
19. 18.999
20. 18.4
21. What is the maximum efficiency of slotted aloha at G = 1?
22. 36.8
23. 35.8
24. 35.5
25. 37.8
26. Which of the following servers allows LAN users to share data?
27. Data server
28. Point server
29. File server
30. Communication server
31. What is the total vulnerable time value of pure Aloha?
32. Tfr
33. 1/2 Tfr
34. 2 \*Tfr
35. 4 \*Tfr
36. Which of the following layers does the HTTP protocol work on?
37. Physical layer
38. Data-link layer
39. Application layer
40. None of the these
41. What is the size of the destination port in the UDP protocol?
42. 8 bits
43. 16 bits
44. 20 bits
45. 32 bits
46. What network utility uses the time-To-Live (TTL) field in the IP header to elicit ICMP error messages?
47. Ping
48. Route
49. Traceroute
50. Ifconfig
51. What is the size of the UDP header?
52. 8 bytes
53. 16 bytes
54. 20 bytes
55. 64 bytes
56. Which of the following protocols is the connection-less protocol?
57. UDP
58. TCP
59. IP
60. All of the these
61. Which of the following devices is not a networking device?
62. Hub
63. Switch
64. Bridge
65. None of the these

**Answer**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. a | 1. c | 1. a | 1. d | 1. a | 1. b | 1. a | 1. b | 1. a | 1. c |
| 1. b | 1. c | 1. b | 1. a | 1. c | 1. d | 1. b | 1. c | 1. a | 1. b |
| 1. d | 1. c | 1. a | 1. a | 1. b | 1. c | 1. d | 1. b | 1. a | 1. c |
| 1. b | 1. b | 1. a | 1. b | 1. a | 1. d | 1. c | 1. b | 1. c | 1. c |
| 1. d | 1. a | 1. c | 1. c | 1. c | 1. b | 1. c | 1. c | 1. a | 1. d |