UNIT IV

TRANSPORT LAYER

Introduction – Transport Layer Protocols – Services – Port Numbers – User Datagram Protocol – Transmission Control Protocol – SCTP 1.

11. Sender and receiver needs to dynamically adjust buffer allocation for

a)flow control

b)congestion control

c)reliability

d)connection establishment

Ans:a,b

12.Transport layer is written/implemented in _____

a)Hardware

b)Firmware

c)Kernel

d)None

Ans:c

13.If a go-back-N ARQ uses 7 bit sequence number space,then the maximum sender window size will be _____

a)0 to 64

b)1 to 63

c)0 to128

d)1 to 127

Ans:c

14.The combination of an IP address and a port number is called a _____

a)transpodt address

b)network address

c)Socket address

d)none of the above

Ans:c

15.If a segment carries data along with an acknowledgment,this is clled _____

a)backpacking

b)Piggybacking

c)piggypacking

d)none of the above

Ans:b

16.The Stop-And-Wait ARQ,Go-Back-N ARQ and the Selective Repeat ARQ are for _____channels.

a)noiseess

b)noisy

c)either a or b

d) neither a nor b

Ans:B

17.In stop-and –Wait ARQ,the acknowledgement number a;ways announces in _____ arithmetic the sequence number of the next frame expected.

a)modulo-m

b)modulo-2

c)modulo-4

d)none of the above

Ans:b

18._____ control refers to a set of procedures used to restrict the amount of data that the sender can send before waiting for acknowledgment.

a)Flow

b)Error

c)Transmission

d)None of the above

Ans:a

19.The port number is “ephemeral port number”,if the source host is _____

a)NTP

b)Echo

c)Server

d)Client

Ans:d

20.What is the purpose of using source&destination port numbers respectively in the addressing method of transport layer?

a)For Delivery&Reply Operations

b) For Reply& Delivery Operations

c)Only for Delivery operations

d)Ony for Reply operations

Ans: b

Unit-4

1. What is the maximum window size for data transmission Using Selective Repeat protocol with n-bit frame sequence number?

(A) 2^n
(B) 2^n-1
(C) 2^{n-2}
(D) $\mathbf{2^{n-1}}$

2. The send window is an abstract concept defining an imaginary box of maximum size = 2m − 1 with three variables: Sf, Sn, and Ssize.
a)Receive window
b)Send and Receive window
c)Send window
d)All the above
Ans:c

3. Assume that, in a Stop-and-Wait system, the bandwidth of the line is 1 Mbps, and 1 bit takes 20 milliseconds to make a round trip. What is the bandwidth-delay product? If the system data packets are 1,000 bits in length, what is the utilization percentage of the link?(page no:712)
a)5%

b)10)
c)15%
d)None of the above
Ans:a
5. In the Go-Back-N protocol, the size of the send window must be less than _____; the size of the receive window is always _____.
a)2m and 1
b)2m and 0
c)0 and 2m
d)None of the above
Ans:a
6. The _____ is an abstract concept defining an imaginary box of size 1 with a single variable Rn. The window slides when a correct packet has arrived; sliding occurs one slot at a time.
a) receive window
b)sender window
c)sending window and receiving window
d)All of the above
Ans:a
7. In the _____ protocol, the acknowledgment number always announces, in modulo-2 arithmetic, the sequence number of the next packet expected.
a)GBN
b)Stop-and Wait protocol
c)Simple Protocol
d)All of the above
Ans:b