



HLS & SCB SBU

Question Set – 3

1) A buffer overflow attack occurs when:

- (a) excess input data overflows the program's input buffer and overwrites another part of memory
- (b) When there is direct or indirect reading of storage location by two different processes
- (c) When inputs are collected from users and configured in unusual ways.
- (d) there are time variations between system security functions check on variable contents.

Q. 2) _____ Transfer messages from sender's mail servers to the recipient's mail servers using _____ connections.

- (a) POP3; UDP
- (b) POP3; TCP
- (c) SMTP; HTTP
- (d) SMTP; TCP



Q. 3) Which of the following is/are not true about the IP based router functionality

1. It is necessary for a router to implement either RIP or OSPF routing algorithm

2. A router reassembles the IP packet in some special scenarios.

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Q. 4) A switch in a datagram network uses a routing table that is based on the _____ address.

(a) Local

(b) Global

(c) Source

(d) Destination

Q. 5) Which of the following is NOT an Application layer protocol?

(a) SCTP

(b) HTTP

(c) SMTP

(d) SNMP

Q. 6) When a mobile telephone physically moves from one cell to another cell, the base station transfers ownership to the cell getting strongest signal. This process is known as _____

(a) Handoff

(b) Mobile routing

(c) Mobile switching

(d) Cell Switching

7) What is the length of an IP address in bytes (pre-IPv6)?

(a) 1

(b) 4

(c) 2

(d) 8



Q. 8) Mechanism that is used to convert domain name into IP address is known as _____.

(a) URL

(b) DNS

(c) FTP

(d) HTTP

9) An IPv4 address consists of two parts: a _____ part and a/an _____ part.

(a) network: Ethernet

(b) Host: Ethernet

(c) Network: Host

(d) Host; Error

Q. 10) Which of the following protocol is used for transferring electronic mail message from one machine to another?

(a) FTP

(b) SNMP

(c) SMTP

(d) HTTP



11) TCP is a _____ layer protocol in the TCP/IP protocol stack

- (a) Network
- (b) Transport
- (c) Application
- (d) Physical

12) Which of the following is not a valid IP address?

- (a) 192.10.9.20
- (b) 192.30.23.189
- (c) 192.10.23.350
- (d) 192.10.50.230

Q. 13) In which type of streaming the multimedia file is delivered to the client, but not shared?

- (a) progressive
- (b) real time
- (c)
Packet filter
- (d) decryption



Q. 14) Which of the following is responsible for converting higher level protocol addresses (IP Addresses) to Physical network addresses ?

- (a) IP
- (b) ICMP
- (c) ARP
- (d) BOOTP

15) Frames from one LAN can be transmitted to another LAN via

- (a) Repeater
- (b) Bridge
- (c) Modem
- (d) Router

Q. 16) _____ are two popular examples of distance vector routing protocols.

- (a) RIP and BGP
- (b) RIP and OSPF
- (c) OSPF and BGP
- (d) BGP and SPF



17) What is the minimum length of a IP header?

(a) 32 bytes

(b) 12 bytes

(c) 15 bytes

(d) 20 bytes

18) Which of the following is NOT a valid protocol in a URL?

(a) HTLS

(b) HTTPS

(c) HTTP

(d) FTP

19) What does PPP stands for with respect to Data Communication?

(a) Packet to Point Protocol

(b) Point to Packet Protocol

(c) Point to Point Protocol

(d) Packet to Packet Prototcol



Q. 20) Which of the following determines the time it takes for devices to coordinate the use of the bus?

- (a) Clock delay
- (b) Propagation delay
- (c) Data transfer delay
- (d) Cycle delay

21)

Which of following character reader is equipped with character recognition software?

- (a) Magnetic ink character readers
- (b) Optical mark reader
- (c) Optical character reader
- (d) Image scanner



22) What is the full form of ISR?

- (a) Interrupt Service Request
- (b) Information Service Request
- (c) Information Service Routine
- (d) Interrupt Service Routine

23)

_____ displays a list of utility configure the computer system and install software and hardware.

- (a) Control Panel
- (b) Help and Support
- (c) Taskbar
- (d) Run

24) The primary purpose of software is to turn data into:

- (a) Website
- (b) Information
- (c) Programs
- (d) Objects

25)

Which of the following devices can perform both input and output functions?

(a) communication device

(b) keyboard

(c) mouse

(d) trackball

26) _____ is also known as electronic disk.

(a) USB Sticks

(b) Network Storage Servers

(c) Solid-State Drive

(d) USB Hard Drives



27) Which one is the odd one out?

- (a) Applications
- (b) Peripherals
- (c) Programs
- (d) Operating System

28)

What does USB port use to connect to the devices, and many devices can share that simultaneously?

- (a) Device
- (b) Circuit
- (c) Thin Wire
- (d) Disk



29) What are/is the advantage of using light pen over the touch screen ?

- (a) It is a pointing device.
- (b) It has more positional accuracy .
- (c) It is mechanical pointing device.
- (d) It is based on touching a surface pointing device.

30) Which of the following is NOT an open source software ?

- a) Libre Office
- b) Adobe Photoshop
- c) Firefox
- d) Word Press

31)

In the TCP/IP model, encryption and decryption are functions of _____ layer

- (a) data link
- (b) network
- (c) Transport
- (d) Application

32)

_____ is the protocol designed to handle real-time traffic on the internet.

- (a) TCP
- (b) UDP
- (c) FTP
- (d) RTP

33) Which of the following is an example of Bi-directional data communication?

- (a) Simplex
- (b) Half Duplex
- (c) Full Duplex
- (d) Both 2 and 3

34)

Which of the following is true about datagram service in computer network?

- (a) It is connectionless and unreliable
- (b) It is connection oriented and reliable
- (c) It is connectionless and reliable
- (d) It is connection oriented and unreliable

35) Which of the following is NOT an Application layer protocol?

- (a) SCTP
- (b) HTTP
- (c) SMTP
- (d) SNMP

36)

In a class B subnet, we know the IP address of one host and the mask as given below:

IP address = 125.134.112.66

Mask = 255.255.224.0

What is the first address (Network address)?

- (a) 125.134.96.0
- (b) 125.134.112.0
- (c) 125.134.112.66
- (d) 125.134.0.0

(37)

In the congestion avoidance algorithm, the size of the congestion window increases _____ until congestion is detected.

- (a) Exponentially
- (b) Additivity
- (c) Multiplicatively
- (d) Suddenly

38)

In CRC calculation if divisor is 1011, and dataword is 1001 what will be the CRC?

(a) 111

(b) 101

(c) 110

(d) 100

39)

Consider the following two statements:

S1: TCP handles both congestion and flow control

S2: UDP handles congestion but not flow control

Which of the following option is correct with respect to the above statements (S1) and (S2)?

(a) Both S1 and S2 are correct

(b) Neither S1 nor S2 is correct

(c) S1 is not correct but S2 is correct

(d) S1 is correct but S2 is not correct

40) _____ uses pretty good privacy algorithm.

- (a) Electronic mails
- (b) File encryption
- (c) Both Electronic mails and File encryption
- (d) None of the options

41) The IP address _____ is used by hosts when they are being booted.

- (a) 0.0.0.0
- (b) 1.0.0.0
- (c) 1.1.1.1
- (d) 255.255.255.255

42)

A TCP header contains 6 flag bits. match the List A with List B for corresponding functionality of flag.

List -A	List -B
a. URG	i. Synchronizes sequence number during connection.
b. SYN	ii. The value of the urgent pointer field is valid
c. FIN	iii. Reset the connection
d. RST	iv. Terminate the connection

(a) A-ii, b-i, c-iii, d -iv

(b) A-ii, b-i, c-iv, d -iii

(c) A-iii, b-i, c-ii, d -iv

(d) A-iv, b-i, c-iii, d -ii

43)

Protocols in which the sender sends one frame and then waits for an acknowledgement before proceeding for next frame are called as _____.

- (a) Simplex protocols
- (b) Unrestricted simplex protocols
- (c) Simplex stop and wait protocols
- (d) Restricted simplex protocols

44)

What key(s) are used by the sender of an encrypted message in an asymmetric-key cipher?

- (a) Neither public nor private key of the receiver
- (b) Public key of the receiver
- (c) Public or private key of the sender
- (d) Private key of the sender

45)

Which of the following is/are not true about the IP based router functionality

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2. A router reassembles the IP packet in some special scenarios.

(a) Only 1

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(c) Both 1 and 2

(d) Neither 1 nor 2

46) The persist timer is used in TCP to

(a) To detect crashes from the other end of the connection

(b) To enable retransmission

(c) To avoid deadlock condition

(d) To timeout FIN_Wait1 condition

47) TCP port Number for http services is

a) 21

b) 22

c) 80

d) 88

48)

If the size of header in an IPv4 is given as 50 bytes then how it represented in the IPv4's header field?

(a) 1100

(b) 1101

(c) 1111

(d) 0011 0010

49)

Which network protocol Allows hosts to dynamically get a unique IP number on each bootup?

- (a) DHCP
- (b) BOOTP
- (c) RARP
- (d) ARP

50)

Which of the following protocols can automate IP configuration (IP Address, Subnet mask, DNS, default gateway) ?

- (a) SMTP
- (b) DHCP
- (c) SNMP
- (d) ARP

51) The hardware implementation which provides mutual exclusion is

- (a) Semaphores
- (b) Test and set instruction
- (c) Both options
- (d) None of the options

52)

What is number of page faults by least recently used page replacement for a memory with 4 frames for the page reference string 2, 0, 1, 2, 4, 0, 5, 1, 4, 6, 4, 2, 1, 3, 0 ?

- (a) 8
- (b) 7
- (c) 9
- (d) 10

53) With single resource, deadlock occurs

- (a) If there are more than two processor competing for that resource
- (b) If there are only two processes competing for that resource
- (c) If there is a single process competing for that resource
- (d) None of these

54)

Which of the following Page Replacement Algorithm suffers from the belady's anomaly?

- (a) LRU
- (b) Optimal Page Replacement
- (c) FIFO
- (d) Both LRU and FIFO

55)

Which module gives control of the CPU to the process selected by the short-term scheduler?

- (a) Dispatcher
- (b) Interrupt
- (c) Schedular
- (d) Threading

56)

The working set model is used in memory management to implement the concept of:

- (a) Thrashing
- (b) Segmentation
- (c) Principle of locality
- (d) Paging

57) A _____ is a program in execution.

- (a) Process
- (b) Stack
- (c) Program counter
- (d) Heap

58)

The kernel keeps track of the state of each executing program by using a data structure called _____.

- (a) User control block
- (b) Memory control block
- (c) File control block
- (d) Process control block

59)

_____ is generated when it is known at compile time that where the process resides in memory.

- (a) Virtual code
- (b) Locatable code
- (c) Absolute code
- (d) Relocatable code

60)

Which switching is used at the network layer of the OSI model in the Internet?

- (a) Circuit switching
 - (b) Message switching
 - (c) packet switching
 - (d) Frame switching
- 61) The DNS maps the IP addresses to
- (a) A binary address as strings
 - (b) An alphanumeric address
 - (c) A hierarchy of domain names
 - (d) A hexadecimal address

62)

Consider the following statements regarding interrupts.

- (I) If a process is interrupted during system call handling then the OS will crash.
- (II) If a process is interrupted during system call handling then the process is moved to the READY queue.
- (III) If an interrupt handler is interrupted, the OS will crash.

Which of the above statements are true?

- (a) None of the above
- (b) I and II
- (c) III only
- (d) II and III

63)

Match the following.

List-1	List-2
I) Class - A IP address	A) 8 bit host id and 24 bit network id
II) Class - B IP address	B) 16 bit host id and 16 bit network id
III) Class - C IP address	C) 24 bit host id and 8 bit network id

(a) I – B, II – C, III – A

(b) I – C, II – B, III – A

(c) I – A, II – B, III – C

(d) I – C, II – A, III – B

64)

You are working with a network that is 172.16.0.0 and would like to support 600 hosts per subnet. What subnet mask should you use?

- (a) 255.255.192.0
- (b) 255.255.224.0
- (c) 255.255.252.0
- (d) None of the options

65) Which of the following is a private IP Address ?

- (a) 12.0.0.1
- (b) 172.168.2.3
- (c) 168.202.32.4
- (d) 192.168.12.12

66)

What is the Hamming distance between the code-words 10111 and 01000?

(a) 2

(b) 5

(c) 3

(d) 4

67)

In the following pairs of OSI protocol layer/sub-layer and its functionality, the INCORRECT pair is

(a) Network layer and Routing

(b) Data Link Layer and Bit synchronization

(c) Transport layer and End-to-end process communication

(d) Medium Access Control sub-layer and Channel sharing

68) Which of the following is/are true about proxy server?

- I. HTTP doesn't support proxy server.
- II. Proxy sever increases the load on original server.

(a) Only I

(b) Only II

(c) Both I and II

(d) Neither I nor II

69)

Which of the following memory allocation scheme suffers from External fragmentation?

(a) Segmentation

(b) Pure demand paging

(c) Swapping

(d) Paging

70)

Which one of the following fields is present in both TCP header and UDP header?

- (a) Acknowledgement number
- (b) Urgent pointer
- (c) Sequence number
- (d) checksum

71)

What is the maximum size of data that application layer can pass on to the TCP layer below?

- (a) Any size
- (b) (2^{16} bytes - the size of TCP header)
- (c) 2^{16} bytes
- (d) 1500 bytes

72)

Which layer is associated with log in and log out from the network?

(a) Data Link

(b) Presentation

(c) Session

(d) Transport

73)

Which pair of protocols will use only single TCP connections between the same client and the server?

Choose the most appropriate answer among the given pairs.

(a) HTTP and SMTP

(b) TELNET and FTP

(c) FTP and SMTP

(d) SMTP and TELNET

74) Which of the following is not a component of a search engine?

- (a) Web crawler
- (b) Database
- (c) Web server
- (d) Search interface

75)

In web browser, which of the following is responsible for displaying the web pages?

- (a) Server
- (b) Rendering engine
- (c) Page engine
- (d) Search Engine

76)

Which of the following is an incorrect statement about search engines?

- (a) Bing was launched by Microsoft in 2009.
- (b) The Google search engine was originally known as BackRub.
- (c) AltaVista was launched by Apple.
- (d) Ask was launched in 1996.

77) What is full form of URL?

- (a) Unit Reserve Locator
- (b) Uniform Reserve Locate
- (c) Unit Rate Locate
- (d) Uniform Resource Locator

78)

Which of the following search engine is dominating market with maximum number of searches on it?

(a) Yahoo

(b) Bing

(c) Ask.com

(d) Google

79)

Almost every search engine uses a program or automated script called _____ to browse the World Wide Web in a systematic manner and index them in a local repository.

(a) Crawler

(b) Adware

(c) Spooler

(d) Spyware

80) Which of the following principles does most packet switches use?

- (a) Stop and wait
- (b) Store and forward
- (c) Both Stop and wait & Store and forward
- (d) None of these

81)

Which of the following statements is correct regarding web search engines?

- (a) It searches the IP address of the web server.
- (b) A web crawler is an important component of a web search engine.
- (c) This is system software.
- (d) Google Chrome is a web search engine.

82)

Which of the following statements cannot be associated with OSI model?

- (a) A structured way to discuss and easier update system components.
- (b) One layer may duplicate lower layer functionality.
- (c) Functionality at one layer no way requires information from another layer.
- (d) None of these

83)

In the Internet Explorer browser, you can see a thumbnail view of all the open tabs. For this purpose, we should select the "_____ " option to view web pages.

- (a) Preview
- (b) normal
- (c) quick Tabs
- (d) favorites

84)

_____ is a way to quickly access a favorite website by saving it in your browser

- (a) Cookie
- (b) Bookmark
- (c) Blog
- (d) None of these

85) Choose the search engine among the following.

- (a) Baidu
- (b) Netscape
- (c) Opera
- (d) Rediffmail
