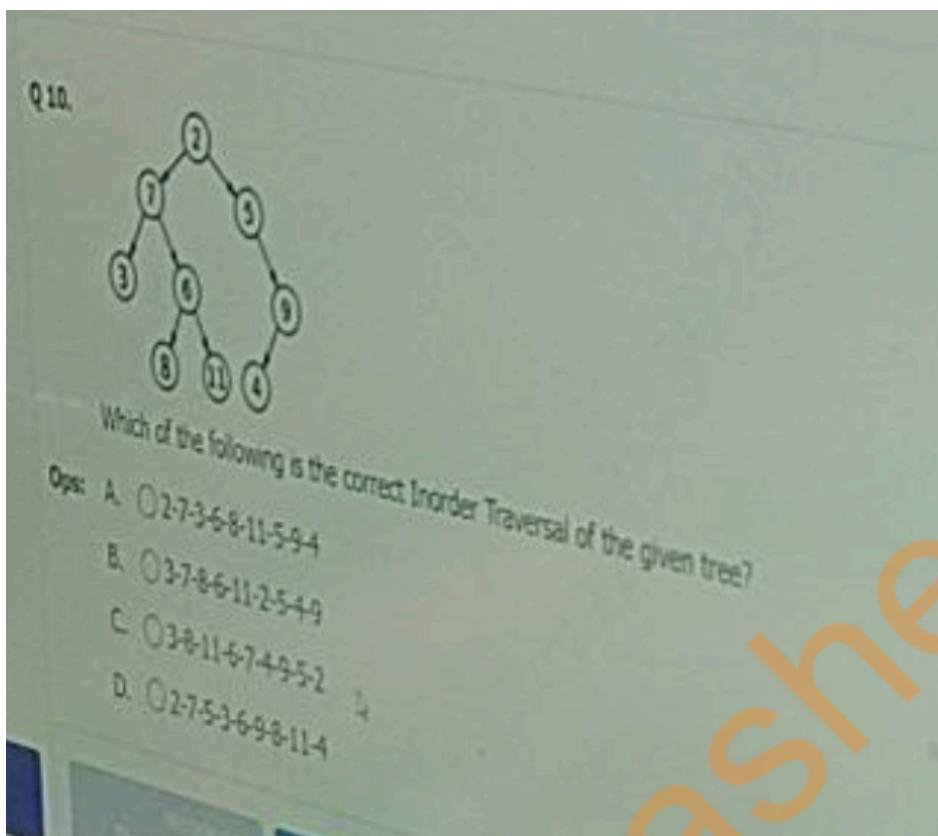
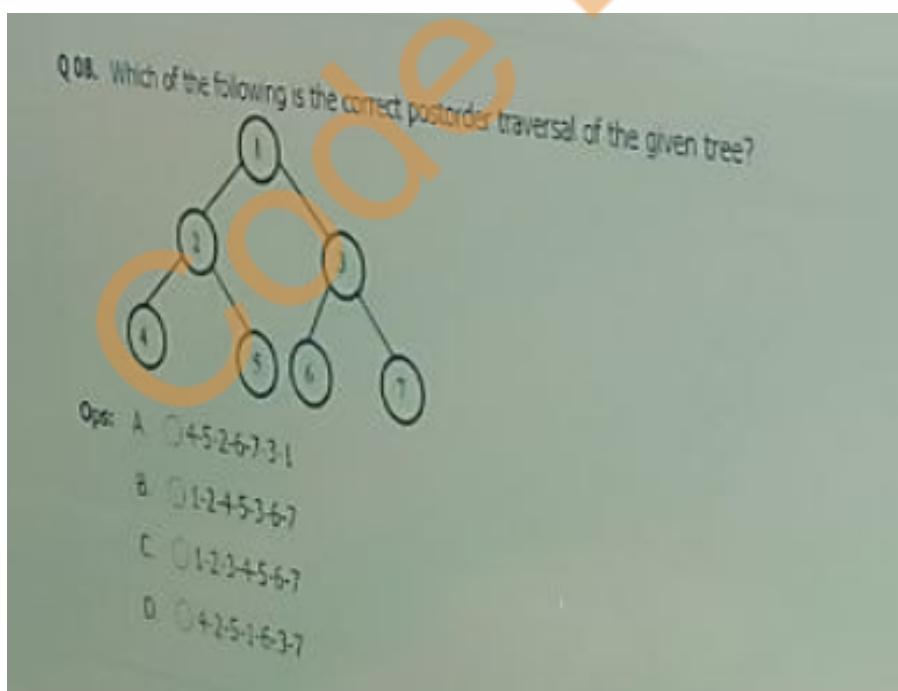


Q1.



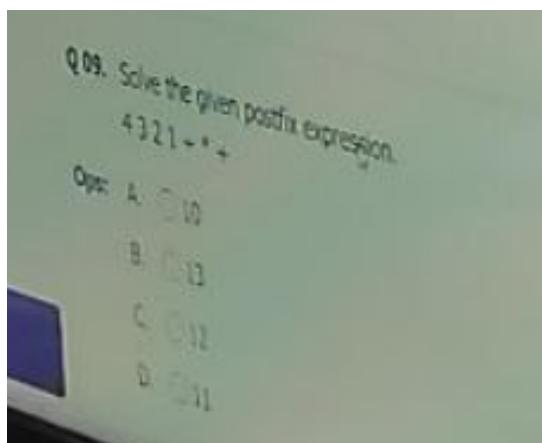
Answer :B - 3 7 8 6 11 2 5 4 9

Q2.



Answer :A - 4 5 2 6 7 3 1

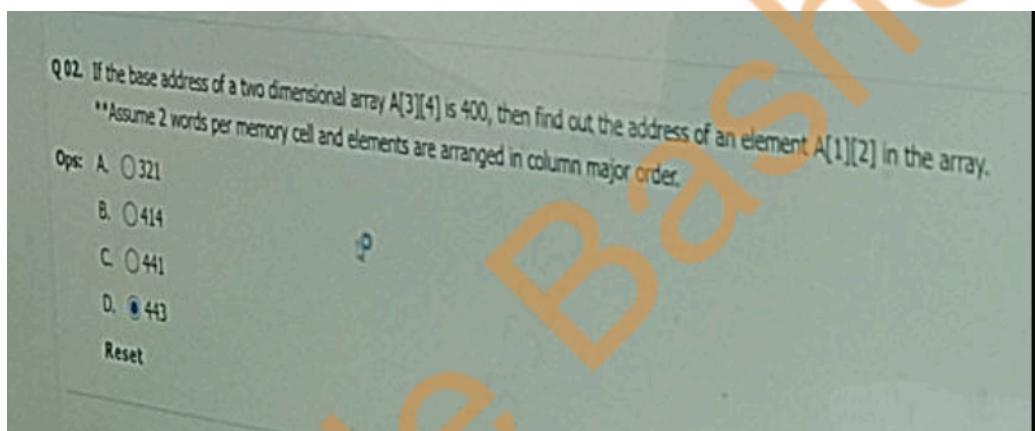
Q3.



4 3 2 1 + * +

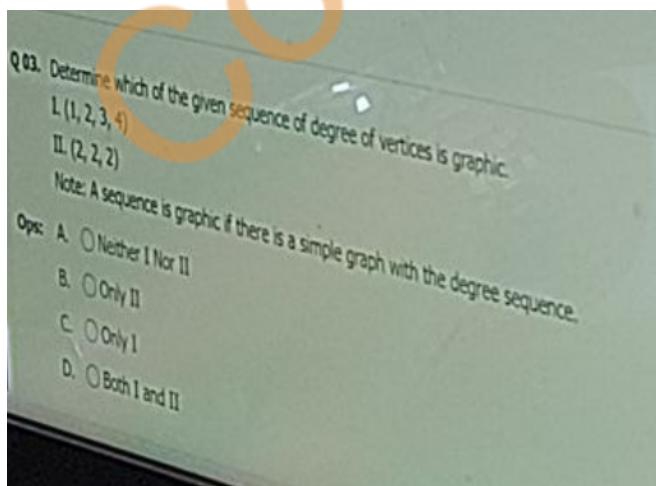
Answer : B - 13

Q4.



Answer : B - 414

Q5.



Answer : B - ONLY 2

Q6.

4. Suppose a simple graph has 12 edges, 2 vertices of degree 3, and all others of degree 2. How many vertices does the graph have?

Ops: A. 11

B. 8

C. 6

D. 7

Reset

Answer : A - 11

Q7.

Q5. If we draw a binary search tree by inserting the given numbers from left to right, then what would be the height of the BST?
16, 25, 35, 24, 23, 22, 20

Ops: A. 5

B. 4

C. 3

D. 2

Answer :A - 5

Q8.

Q6. If you are using Bubble sort for sorting the given numbers in ascending order then find out the number of swappings needed.
15, 20, 25, 5, 10

Ops: A. 5

B. 6

C. 7

D. 8

Answer : B - 6

Q9.

01. Data Structures

Q 01. Find out the array representation of the given max heap, if the value 57 is inserted in it.
60, 58, 56, 54, 53

Ops:

- A. 60, 57, 58, 54, 53, 56
- B. 60, 58, 57, 54, 56, 53
- C. 58, 60, 57, 54, 53, 56
- D. 60, 58, 57, 54, 53, 56

Answer : D

Q10.

Q 01. Determine which of the given sequence of the degree of vertices is graphic.

- I. (2, 2, 2, 2, 3, 3)
- II. (2, 2, 4, 4)

Note: A sequence is graphic if there is a simple graph with the degree sequence.

Ops:

- A. Only I
- B. Only II
- C. Both I and II
- D. Neither I Nor II

Answer : A

Q11.

Q 02. Find out the array representation of the given min heap, if the value 12 is inserted in it.
7, 11, 15, 19, 23, 27, 31

Ops:

- A. 7, 11, 15, 12, 23, 27, 31, 19
- B. 7, 11, 15, 12, 27, 23, 31, 19
- C. 7, 11, 12, 15, 23, 27, 31, 19
- D. 11, 7, 15, 12, 23, 27, 31, 19

Answer :A

Q12.

Q 03. If the base address of a two dimensional array A[4][3] is 200, then find out the address of an element A[1][2] in the array.
**Assume 2 words per memory cell and elements are arranged in row major order.

- Ops:
- A. 210
 - B. 321
 - C. 310
 - D. 200

Answer : A - 210

Q13.

Q 02. Solve the given postfix expression.
 $4 \ 1 \ 2 * \ + \ 3 \ -$

- Ops:
- A. 5
 - B. 2
 - C. 4
 - D. 3

Answer : D - 3

Q14.

Q 03. Linked lists are more efficient than arrays in -
1. Sequential access
2. Element rearranging

Ops:

- A. Neither 1 nor 2
- B. Only 2
- C. Only 1
- D. Both 1 and 2

Answer : B

Q15.

Q 04. If you are using Bubble sort for sorting the given numbers in ascending order, then find out the number of swappings needed.
1, 5, 2, 3, 4

Ops: A. 2
B. 4
C. 3
D. 5

Answer : C - 3

Q16.

Q 05. If you are using Bubble sort for sorting the given numbers in ascending order then find out the number of swappings needed.
7, 6, 5, 8, 9

Ops: A. 2
B. 4
C. 5
D. 3

Answer : D - 3

Q17.

Q 08. In linked list, why is it not necessary to specify the number of elements during declaration?
I. Memory is allocated during run time
II. Memory is allocated during compile time

Ops: A. Only II
B. Neither I Nor II
C. Both I and II
D. Only I

Answer : D

Q18.

Q 10. For an unweighted graph, DFS traversal of the graph produces -
I. The minimum spanning tree
II. All pair shortest path tree

Ops: A. Both I and II
B. Only I
C. Neither I Nor II
D. Only II

Answer : C

Q19.

Q 01. In the given Max Heap find out the parent value of 29.

A	1	2	3	4	5	6	7	8	9	10
	70	60	40	45	50	29	16	10	9	35

- Ops:
- A. 45
 - B. 70
 - C. 40
 - D. 60

Answer : C - 40

Q20.

Q 02. If you are using Bubble sort for sorting the given numbers in ascending order then find out the number of swappings needed.
50, 54, 55, 45, 48

- Ops:
- A. 8
 - B. 5
 - C. 4
 - D. 6

Answer : D

Q21.

Q 10. Find out the array representation of the given max heap, if the value 13 is deleted from it.

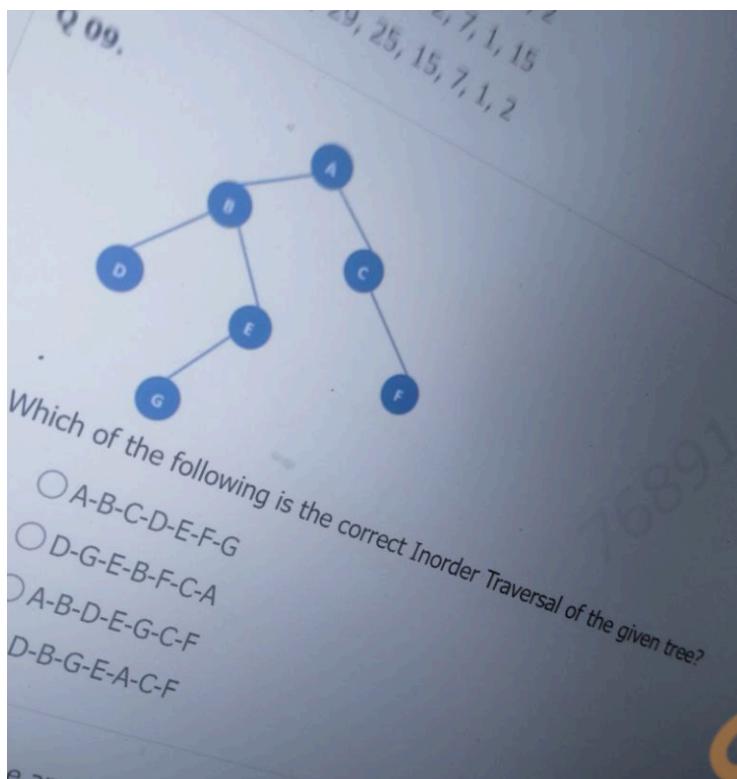
SECTION 00/02
Previous Section
SECTION 02/02
Next Section

Ops:

- A. 19, 16, 4, 10, 7
- B. 19, 16, 10, 7, 4
- C. 19, 4, 7, 10, 16
- D. 10, 7, 19, 16, 4

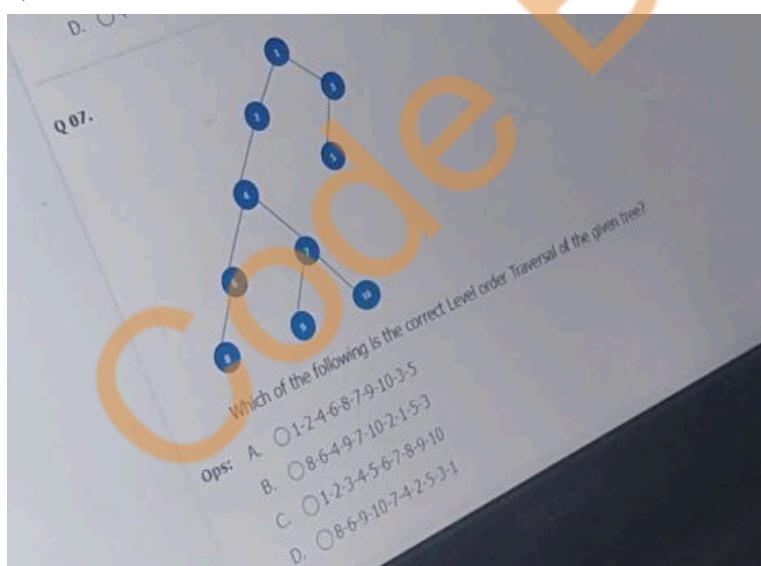
Answer : A

Q22.



Answer : D

Q23.



Answer : C

Q24.

- B. Find out the array representation of the given min-heap, if the value 8 is inserted in it
5, 10, 25, 15, 20, 35
- A. 5, 10, 15, 8, 20, 35, 25
B. 5, 10, 8, 15, 20, 35, 25
C. 5, 8, 10, 15, 20, 35, 25
D. 5, 10, 8, 15, 20, 25, 35

Answer : B

Q25.

Q 10. Solve the given postfix expression.

8 6 + 4 2 - /

- Ops:
- A. 7
B. 5
C. 8
D. 6

Answer : A - 7

Q26.

Q 25. From the given linear or array representation of the binary tree find the node whose right child is not there?

A	B	C	D	E	F	G	.	H	.	.	I	.	J	.	.	I	N	.	I
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

- Ops:
- A. G
B. K
C. H
D. J

Answer : A

Q27.

Q 01. Which of the following is the correct Inorder Traversal of the given tree?

```
graph TD; A((A)) --> B((B)); A --> C((C)); B --> D((D)); B --> E((E)); E --> H((H)); E --> I((I)); C --> F((F)); C --> G((G)); G --> J((J))
```

Ops:

- A. D-B-H-E-I-A-F-C-G-J
- B. D-H-I-E-B-F-J-G-C-A
- C. A-B-D-E-H-I-C-F-G-J
- D. A-B-C-D-E-F-G-H-I-J

Answer : A

Q28.

Q 13. Find out the number of swappings required for sorting the given numbers in ascending order if you are using Bubble sort for sorting.

55, 60, 40, 32, 23, 34, 36

Ops:

- A. 16
- B. 15
- C. 14
- D. 12

Answer : B- 15

Q29.

Q 14. Find out the address of element A[6][6] in a 2D array A[8][9] whose base address is 1050 and elements are arranged in row major order.

**Assume 2 words per memory cell.

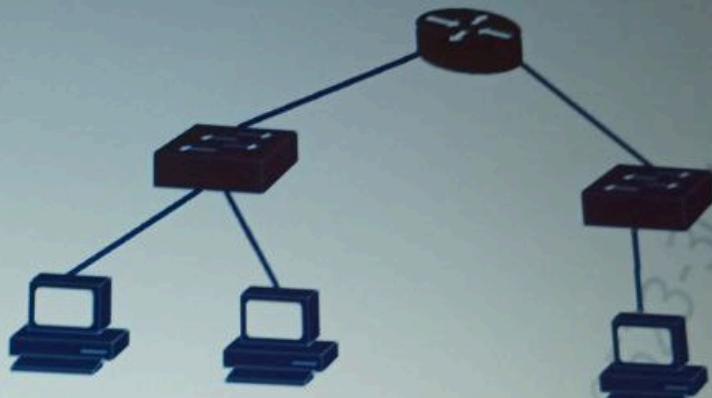
Ops:

- A. 1158
- B. 1170
- C. 1168
- D. 1162

Answer : B - 1170

Q30.

Q 10. Find out the number of broadcast domains in the given network diagram.

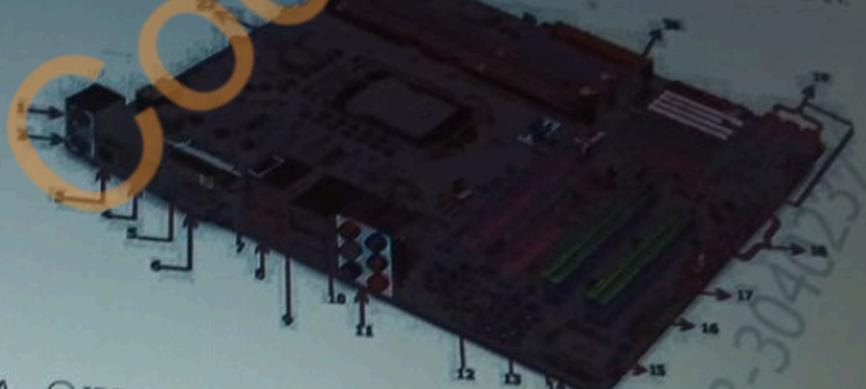


- Ops:
- A. 2
 - B. 4
 - C. 3
 - D. 5

Answer : C

Q31.

Q 11. In the given motherboard image, identify the green color slots shown at number 14.



- Ops:
- A. IDE connector
 - B. PCI slots
 - C. USB header
 - D. SATA 2 connectors

Answer : B

Q32.

Q 09. Which of the following is the cipher text for the plain text "GLOW"?
Use affine cipher to encrypt if key pair is (3,10).

- Ops:**
- A. DTCA
 - B. DSBA
 - C. ETCA
 - D. ESBA

Answer : A

Q33.

Q 10. Before purchasing/downloading a software which of the following things should be checked?

1. Version of software
2. Ram required
3. Number of Bits

- Ops:**
- A. All 1, 2 & 3
 - B. Only 1 & 3

Answer : ALL OF THEM

Q34.

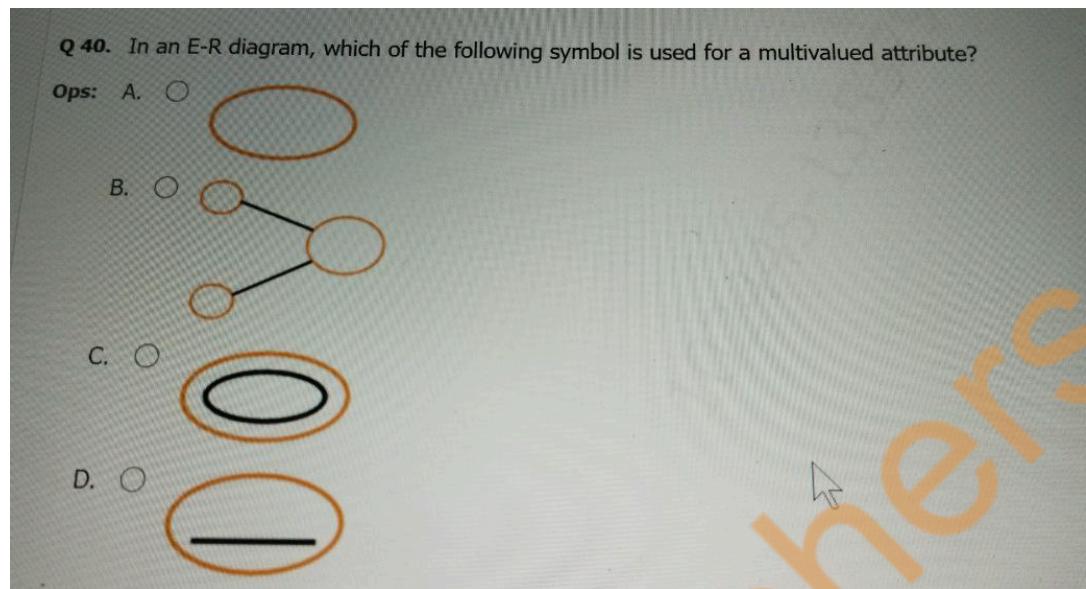
Q 38. How many collision domains are there in the given network diagram?



- Ops:**
- A. 9
 - B. 5
 - C. 7
 - D. 6

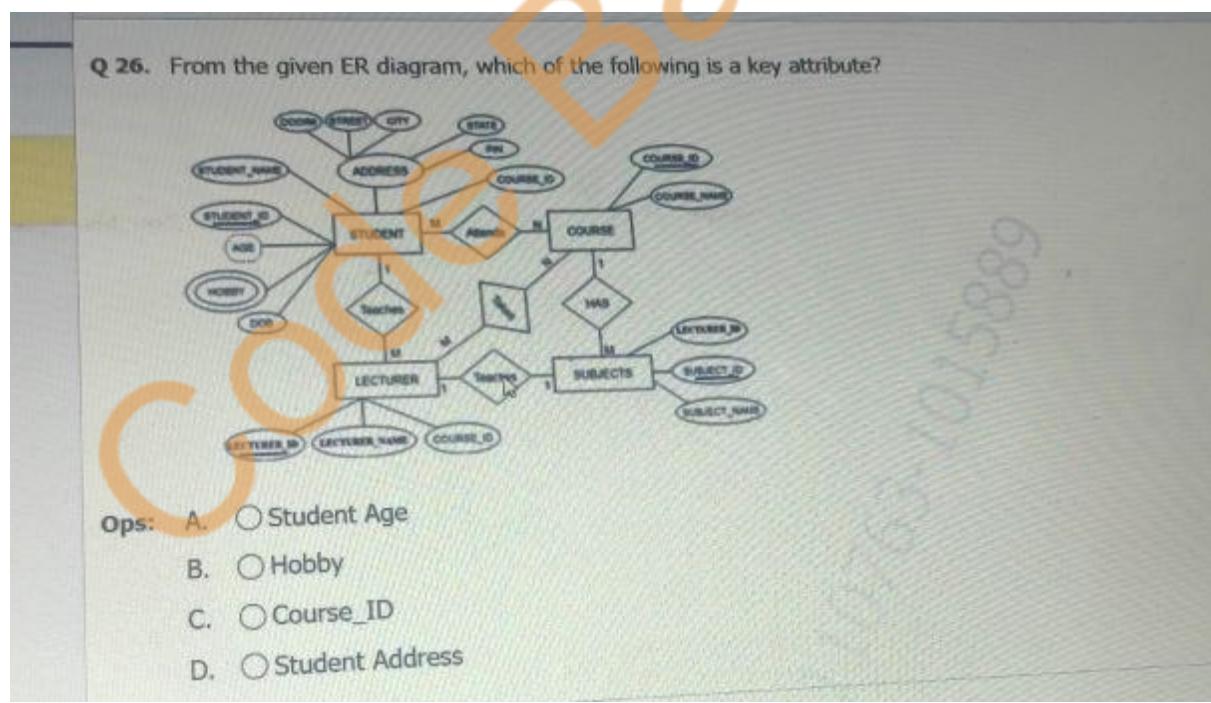
Answer : A - 9

Q35.



Answer : C

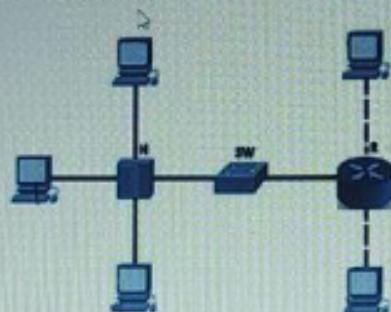
Q36.



Answer : C

Q37.

Q 40. Find out the number of collision domains in the given network diagram.



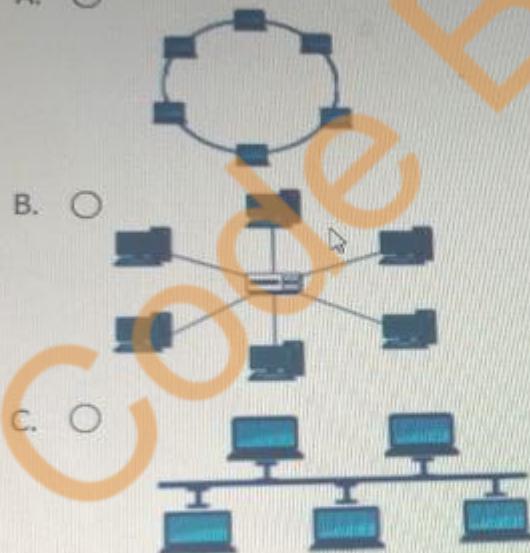
- Ops: A. B. C. D.

Answer : D - 6

Q38.

Q 30. In which of the given topologies, terminators are used?

- Ops: A.



- B.



- C.



- D.

Answer : C

Q39.

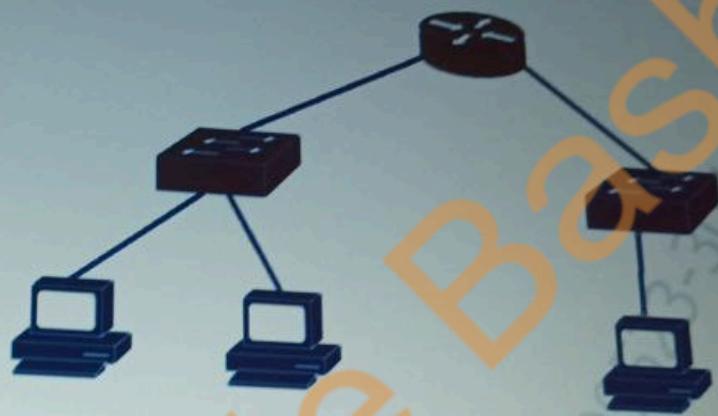
Q 16. If we draw a binary search tree by inserting the given numbers from left to right, then what would be the height of the BST?
151, 155, 157, 150, 158, 153

- Ops:**
- A. 2
 - B. 4
 - C. 5
 - D. 3

Answer : B

Q40.

Q 10. Find out the number of broadcast domains in the given network diagram



- Ops:**
- A. 2
 - B. 4
 - C. 3
 - D. 5

Answer : C

Q41.

Q1. Which one of the following array elements represents a binary min heap?

- a) 12 10 8 25 14 17
- b) 8 10 12 25 14 17
- c) 25 17 14 12 10 8
- d) 14 17 25 10 12 8

Answer : B

Q42.

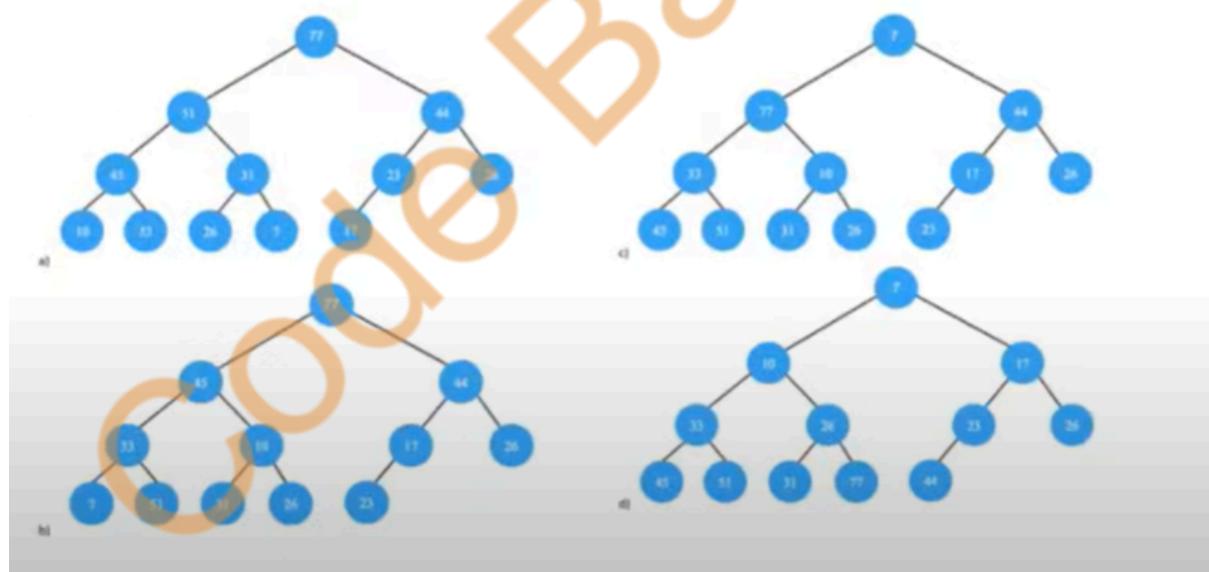
Q2. Find out the maximum number of nodes present in a tree of height 6.

- A. 31
 - B. 63
 - C. 64
 - D. 32

Answer : B

Q43.

Q6. Which of the following is the valid min heap?



Answer : D

Q44.

Q7. What's wrong with this code which returns xor of two nodes address ?

```
//struct is common user defined datatype in c/c++ and class is it's alternative  
  
struct node* XOR (struct node *a, struct node *b)  
{  
    //this logic is used to fill the nodes with address of a xor linked list  
    return ((int) (a) ^ (int) (b));  
}
```

- nothing wrong, everything is fine
- type casting at return is missing
- parameters are wrong
- total logic is wrong

Answer :B

Q45.

Q8. In a full binary tree if number of internal nodes is I, then number of nodes N are?

- a) $N = 2^I$
- b) $N = I + 1$
- c) $N = I - 1$
- d) $N = 2^I + 1$

Answer :D

Q46.

Q9. Consider a stack of integers.

The stack is allocated 5 memory cells.

STACK : 1, 3, 3, __ __

- 1
- 10
- 4
- 3

The following operations are performed on the stack :

- i) PUSH(STACK,4)
- ii) PUSH(STACK,10)
- iii) POP(STACK,ITEM)

What value will be stored in ITEM?

Answer : 10 (B)

Q47.

Q10.

- Applications and services that run on a distributed network using virtualized resources is known as
- a) Parallel computing
 - b) Soft computing
 - c) Distributed computing
 - d) Cloud computing

Answer : D

Q48.

Q11. Which one of the following given statements possibly contains the error?

- select * from emp where empid = 10003;
- select empid from emp where empid = 10006;
- select empid from emp;
- select empid where empid = 1009 and Lastname = 'GELLER';

Answer : B

Q49.

Q12. What do you mean by one to many relationships?

- One class may have many teachers
- One teacher can have many classes
- Many classes may have many teachers
- Many teachers may have many classes

Answer :B

Q50.

Q13. The term "NTFS" refers to which one of the following?



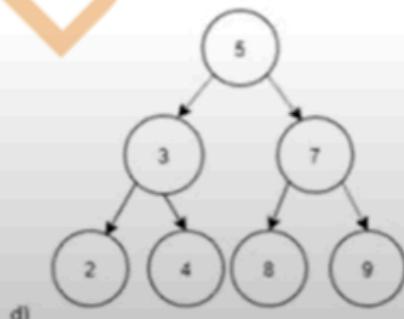
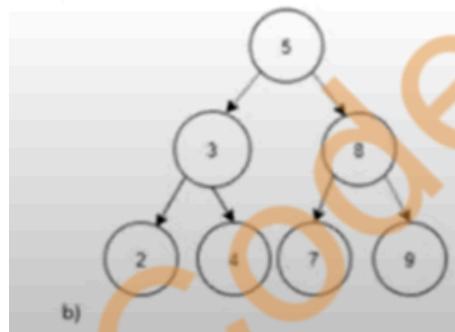
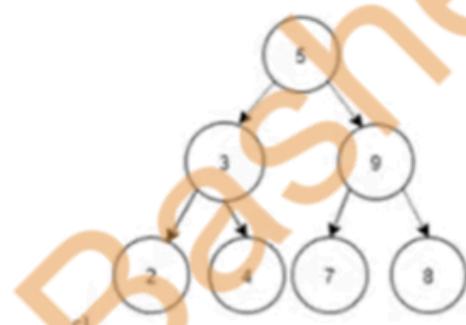
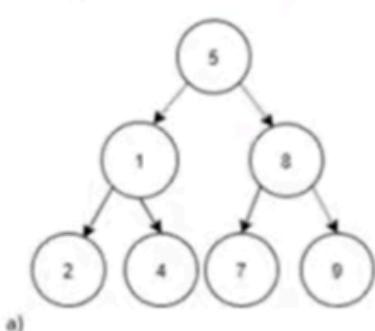
- New Technology File System
- New Tree File System
- New Table type File System
- Both A and C

Answer :A

Q51.

Q14. Construct a binary search tree by using postorder sequence given below.

Postorder: 2, 4, 3, 7, 9, 8, 5.



Answer :B

Q52.

Q15.

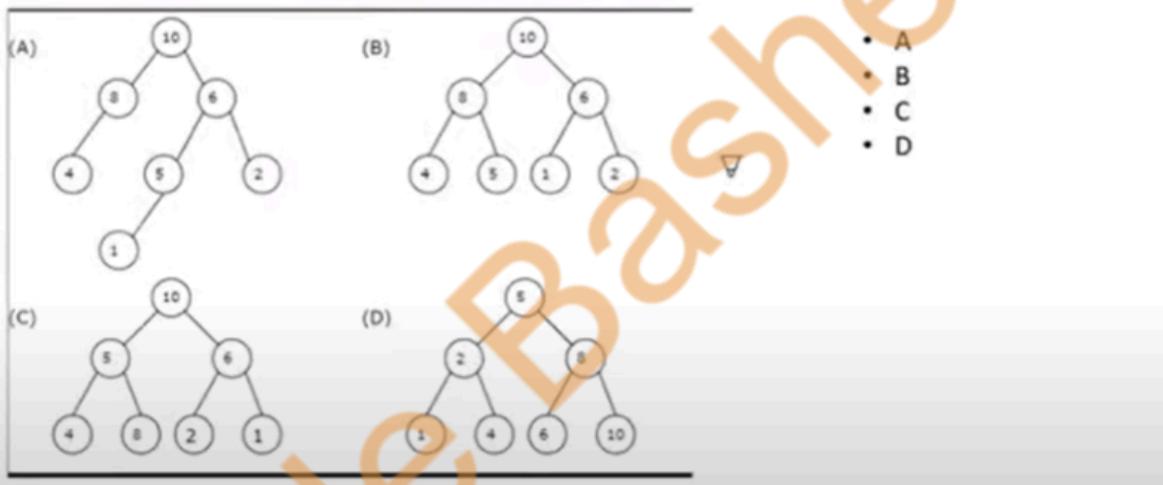
What is the term for an endpoint of an inter-process communication flow across a computer network?

- a) port
- b) machine
- c) socket
- d) pipe

Answer :C

Q53.

Q18. A max-heap is a heap where the value of each parent is greater than or equal to the values of its children. Which of the following is a max-heap?



Answer :B

Q54.

Q20.

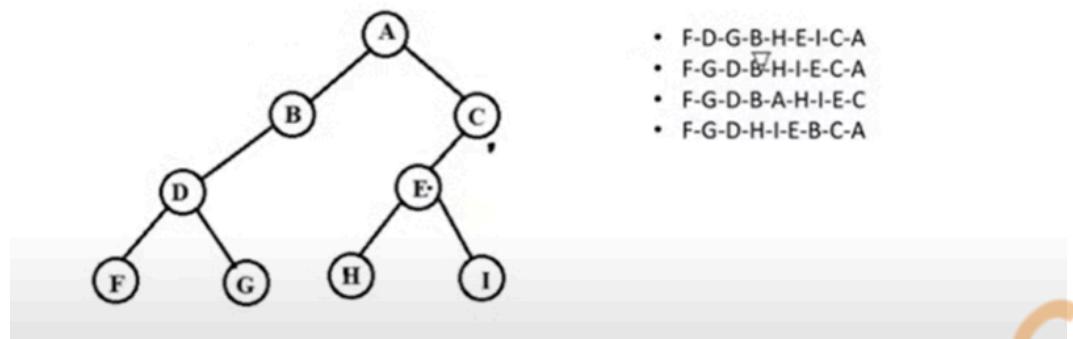
The values appearing in given attributes of any tuple in the referencing relation must likewise occur in specified attributes of at least one tuple in the referenced relation, according to _____ integrity constraint.

- a) Referential
- b) Primary
- c) Referencing
- d) Specific

Answer :B

Q55.

. Q4. Which of the following is the correct post-order traversal of the given rooted tree ?



- F-D-G-B-H-E-I-C-A
- F-G-D-B-H-I-E-C-A
- F-G-D-B-A-H-I-E-C
- F-G-D-H-I-E-B-C-A

Answer :B

Q56.

. Q5. In an empty BST, insert the following elements in a similar sequence. Which element will be at the lowest level?

105, 95, 122, 99, 97, 120

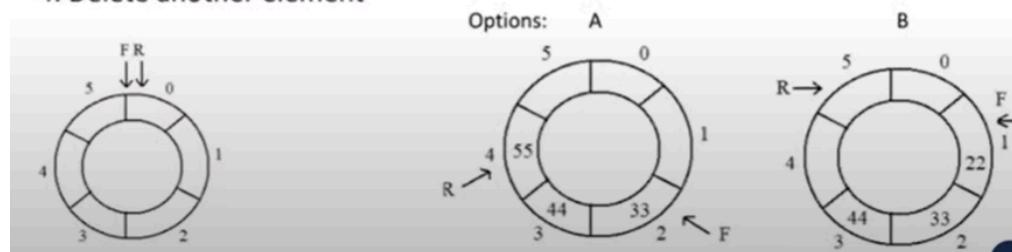
- 95
- 97
- 99
- 120

Answer :B

Q57.

. Q6. Consider a circular queue, which can hold maximum (MAX) of six elements. Initially, the queue is empty as shown in the image. Follow the steps provided and find out the correct option.

1. Insert 11 to the circular queue
2. Insert new elements 22, 33, 44, and 55 into the circular queue
3. Delete an element
4. Delete another element



Answer :A

Q58.

• Q7.

Consider a max heap, represented by the array: 40, 30, 20, 10, 15, 16, 17, 8, 4. Now consider that a value 35 is inserted into this heap. After insertion, the new heap is



- 40, 30, 20, 10, 15, 16, 17, 8, 4, 35
- 40, 35, 20, 10, 30, 16, 17, 8, 4, 15
- 40, 30, 20, 10, 35, 16, 17, 8, 4, 15
- 40, 35, 20, 10, 15, 16, 17, 8, 4, 30

Answer :B

Q59.

• Q8. In the balanced binary tree in the below figure, how many nodes will become unbalanced when a node is inserted as a child of the node "g"?



Answer :B

Q60.

· Q10.

Which one of the following is a phase of the Deployment process?



- Selecting Cloud Computing Provider
- IT Architecture Development
- Business Architecture Development
- Transformation Plan Development

Answer :D

Q61.

· Q11. Which one of the following refers to the user's part of the Cloud Computing system?

- back End
- Management
- Infrastructure
- Front End

Answer :D

Q62.

· Q12. Which one of the following of PaaS type that involves on-demand scaling and application security?

- Stand-alone development environments
- Open Platform as a service
- Application delivery-only environments
- Add-on development facilities

Answer :C

Q63.

· Q13. Which of the following can be considered PaaS offering?

- Youtube
- Google Earth
- Google Adsense
- Google Maps

Answer :D

Q64.

· Q14. Inst_dept (ID, name, salary, dept name, building, budget) is decomposed into

instructor (ID, name, dept name, salary)
department (dept name, building, budget)

This comes under

- Lossy-join decomposition
- Lossy decomposition
- Lossless-join decomposition
- Both Lossy and Lossy-join decomposition

Answer :C

Q65.

- Q15. Suppose relation R(A,B,C,D,E) has the following functional dependencies:

A → B
B → C
BC → A
A → D
E → A
D → E



Which of the following is not a key?
a) A
b) E
c) B, C
d) None of the mentioned

Answer :D

Q66.

- Q16.

The location of a resource on the internet is given by its?

- Protocol
• URL
• E-mail address
• ICQ

Answer :B

Q67.

- Q17. Which software prevents the external access to a system?

- Firewall
• Gateway
• Router
• Virus checker

Answer :A

Q68.

• Q18. When the mail server sends mail to other mail servers it becomes ----?

- SMTP client
- SMTP server
- Peer
- Master

Answer :A

Q69.

Ques. What is the time complexity of to insert a node on position in a priority queue?

- A) $O(\log n)$
- B) $O(n)$
- C) $O(n \cdot \log n)$
- D) $O(1)$

Answer :B

Q70.

Ques. In order traversal of binary search will make ?

- A) Unsorted list
- B) Reverse of input
- C) Sorted list
- D) None of the above

Answer :C

Q71.

Ques. This is the formula of ?

$$F_n = F_{n-1} + F_{n-2}$$

- A) Prime Numbers
- B) Euler number
- C) Armstrong Number
- D) Fibonacci series

Answer :D

Q72.

Ques. Consider a binary Tree consisting of 5 nodes, the level order traversal of the tree is P Q R S T, which of the following node can be the child of Q?

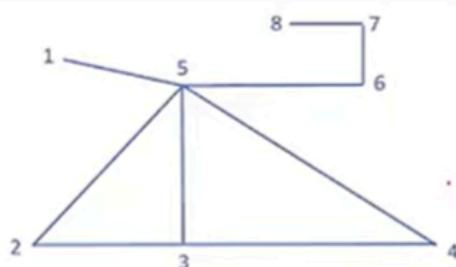
- A) T
- B) S
- C) All of these
- D) R

Answer :C

Q73.

Ques. Given Below a graph G, Which of the following is a walk?

- A) 8765325
- B) 43251
- C) 253456
- D) all of these



Answer :D

Q74.

Ques. Which of the following can not be the height of a binary tree consisting of 3069 nodes ?

- A) 4565
- B) 1635
- C) 899
- D) 300

Answer :A

Q75.

If the elements '1', '2', '3' and '4' are inserted in a queue, what would be order

- 1. 1234
- 2. 4321
- 3. 3241
- 4. None of the above

Answer :A

Q76.

The result evaluating the postfix expression $10\ 5\ +\ 60\ 6\ /\ *\ 8\ -$ is

- 284
- 213
- 142
- 71

Answer :C

Q77.

Ques. Which of the following real world scenarios would you select with a stack data structure?

Options:

- A) Piling up of chairs one above the other
- B) People standing in a line to be serviced at a counter
- C) Offer services based on the priority of the customer
- D) Tatkal Ticket Booking in IRCTC

Answer :A,C

Q78.

Ques. What is the time complexity of pop() operation when the stack is implemented using an array?

- A) $O(n)$
- B) $O(\log n)$
- C) $O(n \cdot \log n)$
- D) $O(1)$

Answer : D

Q79.

Ques. What algorithm technique is used in implementation of Kruskal soln of MST?

- A) Greedy technique
- B) Divide and Conquer Technique
- C) DP
- D) The algo combines more than one techniques

Answer :A

Q80.

Ques. The worst case occur in linear search algo ?

- A) Item is present at first index
- B) item is present in the last of array
- C) item is present at 3rd last element
- D) item is not present or else present at the last of array

Answer :D

Q81.

Question: Which type of cloud deployment model offers the highest level of control and security?

- a) Public Cloud
- b) Private Cloud
- c) Hybrid Cloud
- d) Multi-Cloud

Answer :B

Q82.

Question: What is “phishing”?

- a) A water-based cloud security measure
- b) A technique to access cloud data from any location
- c) A fraudulent attempt to obtain sensitive information through emails
- d) The process of encrypting data for secure transmission

Answer : C

Q83.

Question: How does a Distributed Denial of Service (DDoS) attack affect cloud services?

- a) It boosts cloud performance
- b) It enhances data encryption
- c) It overloads cloud servers, causing service disruption
- d) It improves data accessibility

Answer :C

Q84.

Question: What is the primary purpose of a Virtual Private Network (VPN) in cloud security?

- a) Increasing cloud storage capacity
- b) Hiding cloud servers' physical location
- c) Encrypting internet traffic for secure communication

Answer :C

Q85.

Question: What does the "S" stand for in "HTTPS"?

- a) Secure
- b) Server
- c) System
- d) Software

Answer :A

Q86.

Which of the following is the most refined and restrictive cloud service model?

- a) PaaS
- b) IaaS
- c) SaaS
- d) CaaS

Answer :A

Q87.

Which one of the following keyword is used to find out the number of values in a column?

- 1. TOTAL
- 2. COUNT
- 3. SUM
- 4. ADD

Answer :B

Q88.

Which one of the following is commonly used to define the overall design of the database?

- 1. Application program
- 2. Data definition language
- 3. Schema
- 4. Source code

Answer :C

Q89.

Q.1 What is a data structure?

- a) A programming language
- b) A collection of algorithms
- c) A way to store and organize data
- d) A type of computer hardware

Answer :C

Q90.

Q.2 What data structure would you mostly likely see in non recursive implementation of a recursive algorithm?

- a) Stack
- b) Linked List
- c) Tree
- d) Queue

Answer :A

Q91.

Q.3 The data structure required for Breadth First Traversal on a graph is?

- a) Array
- b) Stack
- c) Tree
- d) Queue

Answer :D

Q92.

Q.4 Which data structure is based on the Last In First Out (LIFO) principle?

- a) Tree
- b) Linked List
- c) Stack
- d) Queue

Answer :C

Q93.

Q.6 What is Cloud Computing?

- a) Cloud Computing means providing services like storage, servers, database, networking, etc
- b) Cloud Computing means storing data in a database
- c) Cloud Computing is a tool used to create an application
- d) None of the mentioned

Answer :A

Q94.

Q.7 Which of the following is not a type of cloud server?

- a) Public Cloud Servers
- b) Private Cloud Servers
- c) Dedicated Cloud Servers
- d) Merged Cloud Servers

Answer :D

Q95.

Q.8 Cloud computing is a concept that involves pooling physical resources and offering them as which sort of resource?

- a) cloud
- b) real
- c) virtual
- d) none of the mentioned

Answer :C

Q96.

Q.9 Which of the following case does not exist in complexity theory?

- a) Best case
- b) Worst case
- c) Average case
- d) Null case

Answer :D

Q97.

Q.10 The complexity of linear search algorithm is

-
- a) $O(n)$
 - b) $O(\log n)$
 - c) $O(n^2)$
 - d) $O(n \log n)$

Answer :A

Q98.

Q.11 The complexity of Binary search algorithm is

-
- a) $O(n)$
 - b) $O(\log n)$
 - c) $O(n^2)$
 - d) $O(n \log n)$

Answer :B

Q99.

Q.12 How many children does a binary tree have?

- a) 2
- b) any number of children
- c) 0 or 1 or 2
- d) 0 or 1

Answer :C

Q100.

Q.13 The number of edges from the node to the deepest leaf is called _____ of the tree.

- a) Height
- b) Depth
- c) Length
- d) Width

Answer :A

Q101.

Q.14 The complexity of Fibonacci series is

-
- a) $O(2n)$
 - b) $O(\log n)$
 - c) $O(n^2)$
 - d) $O(n \log n)$

Answer :A

Q102.

Q.15 What is a dequeue?

- a) A queue implemented with both singly and doubly linked lists
- b) A queue with insert/delete defined for front side of the queue
- c) A queue with insert/delete defined for both front and rear ends of the queue
- d) A queue implemented with a doubly linked list

Answer :C

Q103.

Q.16 Which of the following is a type of cloud computing service?

- a) Service-as-a-Software (SaaS)
- b) Software-and-a-Server (SaaS)
- c) Software-as-a-Service (SaaS)
- d) Software-as-a-Server (SaaS)

Answer :C

Q104.

Q.17 Which of the following is an example of the cloud?

- a) Amazon Web Services (AWS)
- b) Dropbox
- c) Cisco WebEx
- d) All of the above

Answer :D

Q105.

Q.18 A graph is a tree if and only if graph is

- (A) Directed graph
- (B) Contains no cycles
- (C) Planar
- (D) Completely connected

Answer :B

Q106.

Q.19 To perform level-order traversal on a binary tree, which of the following data structure will be required?

- (A) Hash table
- (B) Queue
- (C) Binary search tree
- (D) Stack

Answer :B

Q107.

Q.20 A binary tree in which all its levels except the last, have maximum numbers of nodes, and all the nodes in the last level have only one child it will be its left child. Name the tree.

- (A) Threaded tree
- (B) Complete binary tree
- (C) M-way search tree

Answer :B

Q108.

Q.21 Which software prevents the external access to a system?

- A. Firewall
- B. Gateway
- C. Router
- D. Virus checker

Answer :A

Q109.

Q.22 Which one of the following is the most common internet protocol?

- A. HTML
- B. NetBEUI
- C. TCP/IP
- D. IPX/SPX

Answer :C

Q110.

Q.23 The term FTP stands for?

- A. File transfer program
- B. File transmission protocol
- C. File transfer protocol
- D. File transfer protection

Answer :C

Q111.

Q.24 The number of edges in a complete graph of n vertices is

- (A) $n(n+1)/2$
- (B) $n(n-1)/2$
- (C) $n^2/2$
- (D) n

Answer :B

Q112.

Q.25 Quick sort is also known as

- A. merge sort
- B. tree sort
- C. shell sort
- D. partition and exchange sort

Answer :D

Q113.

Q.26 sorting is good to use when alphabetizing a large list of names

- A. Merge
- B. Heap
- C. Radix
- D. Bubble

Answer :C

Q114.

Q.27 Which architectural layer is used as a backend in cloud computing?

- a) cloud
- b) soft
- c) client
- d) all of the mentioned

Answer :A

Q115.

Q.32 The term push and pop is related to

- A. Array
- B. Lists
- C. Stacks
- D. Trees

Answer :C

Q116.

Q.33 The operation of processing each element in the list is known as

- A. sorting
- B. merging
- C. inserting
- D. traversal

Answer :D

Q117.

Q.34 Who created the first DBMS?

- a) Edgar Frank Codd
- b) Charles Bachman
- c) Charles Babbage
- d) Sharon B. Codd

Answer :B

Q118.

Q.35 Which type of data can be stored in the database?

- a) Image oriented data
- b) Text, files containing data
- c) Data in the form of audio or video
- d) All of the above

Answer :D

Q119.

Q.36 Which of the following is not a function of the database?

- a) Managing stored data
- b) Manipulating data
- c) Security for stored data
- d) Analysing code

Answer :D

Q120.

Q.40 What is the postfix expression for infix expression?

a-b-c

- a) -ab-c
- b) ab - c -
- c) - -abc
- d) -ab-c

Answer :B

Q121.

Q.41 In infix to postfix conversion algorithm, the operators are associated from?

- a) right to left
- b) left to right
- c) centre to left
- d) centre to right

Answer :B

Q122.

Q.42 Which of the following is non-linear data structure?

- A) Stacks
- B) List
- C) Strings
- D) Trees

Answer :D

Q123.

Q.43 Which of the following is an application of stack?

- A. finding factorial
- B. tower of Hanoi
- C. infix to postfix
- D. all of the above

Answer :D

Q124.

Q.44 What does an RDBMS consist of?

- a) Collection of Records
- b) Collection of Keys
- c) Collection of Tables
- d) Collection of Fields

Answer :C

Q125.

Q.45 Which of the following is not a type of database?

- a) Hierarchical
- b) Network
- c) Distributed
- d) Decentralized

Answer :D

Q126.

Q.46 Which of the following is a component of the DBMS?

- a) Data
- b) Data Languages
- c) Data Manager
- d) All of the above

Answer :D

Q127.

Q.47 What is information about data called?

- a) Hyper data
- b) Tera data
- c) Meta data
- d) Relations

Answer :C

Q128.

Q.48 Which one of the following is not a function of network layer?

- a) congestion control
- b) error control
- c) routing
- d) inter-networking

Answer :B

Q129.

Q.49 Which of the following ways can be used to represent a graph?

- a) Adjacency List and Adjacency Matrix
- b) Incidence Matrix
- c) Adjacency List, Adjacency Matrix as well as Incidence Matrix
- d) No way to represent

Answer :C

Q130.

Q.50 Which of the following is not the type of queue?

- a) Priority queue
- b) Circular queue
- c) Single ended queue
- d) Ordinary queue

Answer :D

Q131.

1. Which operation on a stack has O(1) time complexity?
 - A) Searching an element
 - B) Inserting (PUSH)
 - C) Deleting middle element
 - D) Traversing

Answer :B

Q132.

2. In a binary search tree (BST), the time complexity of search in average case is:
- A) $O(n)$
 - B) $O(\log n)$
 - C) $O(n \log n)$
 - D) $O(1)$

Answer :B

Q133.

3. Which traversal is used in DFS for graphs?
- A) Queue-based traversal
 - B) Stack-based traversal
 - C) Level order traversal
 - D) Hash-based traversal

Answer :B

Q134.

5. Which sorting algorithm is NOT comparison-based?
- A) Quick Sort
 - B) Merge Sort
 - C) Heap Sort
 - D) Counting Sort

Answer :D

Q135.

6. In a circular queue of size n , the condition for overflow is:
- A) $\text{front} = \text{rear}$
 - B) $(\text{rear} + 1) \% n = \text{front}$
 - C) $\text{rear} = n$
 - D) $\text{rear} = \text{front} - 1$

Answer :B

Q136.

7. The worst-case time complexity of Quick Sort occurs when:
- A) Pivot is always median
 - B) Pivot is always first/last element
 - C) Array is already sorted
 - D) Both B and C

Answer :

Q137.

9. Which key uniquely identifies each record in a table?
- A) Candidate Key
 - B) Foreign Key
 - C) Primary Key
 - D) Alternate Key

Answer :D

Q138.

10. Which SQL statement is used to remove a table structure permanently?
- A) DROP
 - B) DELETE
 - C) TRUNCATE
 - D) CLEAR

Answer :C

Q139.

11. In relational databases, a foreign key:
- A) Must be unique
 - B) References a primary key in another table
 - C) Always auto-increments
 - D) Can contain duplicate NULL values

Answer :A

Q140.

12. Which normal form removes partial dependency?
- A) 1NF
 - B) 2NF
 - C) 3NF
 - D) BCNF

Answer :B

Q141.

13. What does the Having clause in SQL do?
- A) Filters rows before grouping
 - B) Filters rows after grouping
 - C) Groups rows
 - D) Sorts rows

Answer :B

Q142.

14. Which of the following is a DCL (Data Control Language) command?
- A) GRANT
 - B) INSERT
 - C) UPDATE
 - D) SELECT

Answer :A

Q143.

15. Which OOP principle allows the same function name to behave differently?
- A) Abstraction
 - B) Polymorphism
 - C) Inheritance
 - D) Encapsulation

Answer :B

Q144.

16. Which feature of OOP is used to restrict direct access to data members?

- A) Abstraction
- B) Inheritance
- C) Encapsulation
- D) Polymorphism

Answer :C

Q145.

17. If class B inherits from class A, what is the relationship?

- A) Has-a
- B) Is-a
- C) Uses-a
- D) Friend

Answer :B

Q146.

18. Which of the following is an example of runtime polymorphism?

- A) Function overloading
- B) Operator overloading
- C) Virtual function overriding
- D) Constructor overloading

Answer :C

Q147.

19. Which keyword in C++ prevents inheritance of a class?

- A) final
- B) static
- C) abstract
- D) sealed

Answer :A

Q148.

20. Which protocol ensures reliable delivery of packets?
- A) UDP
 - B) TCP
 - C) IP
 - D) ICMP

Answer :B

Q149.

21. The maximum length of an IPv4 address in bits is:
- A) 16
 - B) 32
 - C) 64
 - D) 128

Answer :B

Q150.

22. Which layer of OSI is responsible for error detection?
- A) Physical
 - B) Data Link
 - C) Network
 - D) Transport

Answer :B

Q151.

24. Which protocol uses port number 53?
- A) DNS
 - B) HTTP
 - C) FTP
 - D) SMTP

Answer :A

Q152.

29. Which scheduling algorithm may cause starvation?

- A) FCFS
- B) SJF (Shortest Job First)
- C) Round Robin
- D) Priority Scheduling

Answer :

Q153.

30. Which memory management technique allows non-contiguous allocation?

- A) Paging
- B) Contiguous allocation
- C) Fixed partitioning
- D) Single partitioning

Answer :A