Id	1
Question	Minimum number of comparison required to compute the largest and second largest element in array is
A	$n-[\log_2 n]-2$
B	$n+[\log_2 n-2]$
C	$\log_2 n$
D	None of these
Answer	B

Id	2
Question	A one dimensional array A has indices 1 -----75. Each element is a string and takes up three memory words. The array is stored starting at location 1120 decimal. The starting address of A[49] is
A	1167
B	1164
C	1264
D	1169
Answer	C

Id	3
Question	In which of the following cases, linked list implementation of sparse matrices consumes the same memory space as the conventional way of storing the entire array?
A	5×6 matrix with 9 non- zero entries
B	5×6 matrix with 10 non- zero entries
C	Efficient in accesing as entry
D	Efficient if the sparse matrix is a band matrix
Answer	C

Id	4
Question	The phenomenon of having a continuous glow of a beam on the screen even after it is removed is called as
A	Fluorescence
B	Persistence
C	Phosphorescence
D	Incandescence
Answer	B

Id	5
Question	All the following hidden surface algorithms employ image space approach except
A	Back face removal
B	Depth buffer method
C	Scan line method
D	Depth sort method
Answer	A

Id	6
Question	The best hidden surface removal methods used for complex scenes with more than a few thousand surfaces is / are
A	Depth sorting method
B	Octree method
C	Scan line algorithm
D	None of these
Answer	D

Id	7
Question	The anti – aliasing technique which allows shift of 114, 112 and ¾ of a pixel diameter enabling a closer path of a line is
A	Pixel phasing
B	Filtering
C	Intensity compensation
D	Sampling technique
Answer	A

Id	8
Question	The subcategories of orthographic projection are
A	Cavalier, cabinet ,isometric
B	Cavalier , cabinet
C	Isometric , dimetric , trimetric
D	Isometric, cavalier , trimetric
Answer	C

Id	9
Question	The memory address range to which RAM will respond
A	0000H to 1 FFF H
B	0000 H to 5FFF H
C	4000 H to 5FFF H
D	3000 H to FFFF H
Answer	C

Id	10
Question	How many addresses are required for 25×40 video RAM?
A	1020
B	1920
C	1000
D	1500
Answer	C

Id	11
Question	Which of the following is not a form of memory?
A	Instruction cache
B	Instruction register
C	Instruction opcode
D	Both a and b
Answer	C

Id	12
Question	Which memory is difficult to interface with processor?
A	Static memory
B	Dynamic memory
C	ROM
D	None of these
Answer	B

Id	13
Question	Desirable characteristic(s) of a memory system is (are)
A	Speed and reliability
B	Low power consumption
C	Durability and compactness
D	All of these
Answer	D

Id	14
Question	An algorithm is made up of 2 modules M1&M2. If order of M1 is f(n) & M2 is g(n) then the order of algorithm is ?
A	max (f(n),g(n))
B	min(f(n),g(n))
C	$f(n)+g(n)$
D	$f(n)\times g(n)$
Answer	B

Id	15
Question	An array of n numbers is given , where n is an even number. The maximum as well as the minimum of these n numbers needs to be determined. Which of the following is TRUE about the number of comparisons needed ?
A	At least 2n-c comparisons , for some constant c, are needed
B	At most 1.5 n-2 comparisons are needed
C	At least $nlog_2 n$ comparisons are needed
D	None of the above
Answer	B

Id	16
Question	The minimum number of comparisons required to determine if an integer appears more than n/2 times in a sorted array of n integers is
A	$\Theta(n)$
B	$\Theta(\log n)$
C	$\Theta(\log^* n)$
D	$\Theta(1)$
Answer	B

Id	17
Question	A mathematical – model with a collection of operations defined on that model is called
A	Data structure
B	Abstract Data Type
C	Primitive Data Type
D	Algorithm
Answer	B

Id	18
Question	Representation of data structure in memory is known as:
A	Recursive
B	Abstract data type
C	Storage structure
D	File structure
Answer	B

Id	19
Question	An ADT is defined to be a mathematical model of a user – defined type along with the collection of all ---- operations on that model
A	Cardinality
B	Assignment
C	Primitive
D	Structured
Answer	C

Id	20
Question	The information about an array that is used in a program will be stored in
A	Symbol table
B	Activation record
C	System table
D	Dope vector
Answer	D

Id	21
Question	Which of the following abstract data types can be used to represent a many to many relation?
A	Tree
B	Plex
C	Graph
D	Both b and c
Answer	D

Id	22
Question	The method in which records are physically stored in a specified order according to a key field in each record is
A	Hash
B	Direct
C	Sequential
D	All of the above
Answer	A

Id	23
Question	A subschema expresses
A	The logical view
B	The physical view
C	The external view
D	All of the above
Answer	C

Id	24
Question	Which one of the following statements is false?
A	The data dictionary is normally maintained by the database administrator
B	Data elements in the database can be modified by changing the data dictionary
C	The data dictionary contains the name and description of each data element
D	The data dictionary is a tool used exclusively by the database administrator
Answer	B

Id	25
Question	An advantage of the database management approach is
A	Data is dependent on programs
B	Data redundancy increases
C	Data is integrated and can be accessed by multiple programs
D	None of the above
Answer	C

Id	26
Question	A DBMS query language is designed to
A	Support end users who use English – like commands
B	Support in the development of complex applications software
C	Specify the structure of a database
D	All of the above
Answer	D

Id	27
Question	The methods for dealing with the deadlock problem is
A	Use a protocol to make sure that the system never enters in to the deadlock state
B	Allow the system to enter a deadlock state and then recover
C	Ignore the problem, and pretend that deadlocks never occur in the system The UNIX operation system uses this solution
D	All of these
Answer	D

Id	28
Question	A system has 3 processes sharing 4 resources. If each process needs a maximum of 2 units, then
A	Deadlock can never occur
B	Deadlock may occur
C	Deadlock has to occur
D	None of these
Answer	A

Id	29
Question	With a single resource, deadlock occurs
A	If there are more than two processes 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
Answer	D

Id	30
Question	A state is safe if the system can allocate resources to each process (up to its maximum) in some order and still avoid deadlock. Then
A	Deadlocked state is unsafe
B	Unsafe state may lead to a deadlock situation
C	Deadlocked state is a subset of unsafe state
D	All of these
Answer	D

Id	31
Question	A computer system has 6 tape drives, with 'n' processes competing for them. Each process may need 3 tape drives. The maximum value of 'n' for which the system is guaranteed to be deadlock free is
A	4
B	3
C	2
D	1
Answer	C

Id	32
Question	'm' processes share 'n' resources of the same type. The maximum need of each process doesn't exceed 'n' and the sum all the their maximum needs is always less than m +n . In this set up
A	Deadlock can never occur
B	Deadlock may occur
C	Deadlock has to occur
D	None of these
Answer	A

Id	33
Question	Consider a system having 'm' resources of the same type. These resources are shared by 3 processes A,B, C, which have peak time demands of 3,4,6 respectively. The minimum value of 'm' that ensures that deadlock will never occur is
A	11
B	12
C	13
D	14
Answer	A

Id	34
Question	The first step of the implementation phase is
A	Select the computer
B	Announce the implementation project
C	Implementation planning
D	Prepare physical facilities
Answer	C

Id	35
Question	At the time of system study, flow of charts are drawn using
A	Non standard symbols
B	General symbols
C	Abbreviated symbols
D	Specific symbols
Answer	B

Id	36
Question	A knowledge – based information system that acts as an expert consultant to users in a specific application area, select one answer
A	Expert system
B	Applications
C	Benefits and limitations
D	Knowledge base
Answer	A

Id	37
Question	The systems which can preserve and reproduce the knowledge of experts but have a limited application focus, is
A	Expert system
B	Applications
C	Benefits and limitations
D	Knowledge base
Answer	C

Id	38
Question	Which one of the following can either buy a completely developed expert system package, develop one with an expert system shell, or develop one from scratch by custom programming?
A	Knowledge engineer
B	System development
C	Expert system shell
D	Inference engine
Answer	B

Id	39
Question	Disadvantage of "Compile and GO" loading scheme is that
A	A portion of memory is wasted because the case occupied by the assembler is unavailable to the object program
B	It is necessary to retranslate the users program and check everytime it is run
C	It is very difficult to handle multiple segments, especially if the source programs are in different languages and to produce orderly modular programs
D	All of these
Answer	D

Id	40
Question	Function of the storage assignment is
A	Assign storage to all variables referenced in the source program
B	Assign storage to all temporary locations that are necessary for intermediate results
C	Assign storage to literals, and to ensure that the storage is allocated and appropriate locations are initialized
D	All of these
Answer	D

Id	41
Question	A non relocatable program is the one which
A	Cannot be made to execute in any area of storage other than the one designated for it at the time of its coding or translation
B	Consists of a program and relevant information for its relocation
C	Can itself perform the relocation of its address sensitive portions
D	All of these
Answer	A

Id	42
Question	A relocatable program form is one which
A	Cannot be made to execute in any area of storage other than the one designated for it at the time of its coding or translation
B	Consists of a program and relevant information for its relocation
C	Can be processed to relocate it to a desired area of memory
D	All of these
Answer	C

Id	43
Question	A self – relocating program is one which
A	Cannot be made to execute in any area of storage other than the one designated for it at the time of its coding or translation
B	Consists of a program and relevant information for its relocation
C	Can itself perform the relocation of its address sensitive portions
D	All of these
Answer	C

Id	44
Question	Artificial neural network used for
A	Pattern recognition
B	Classification
C	Clustering
D	All of these
Answer	D

Id	45
Question	Ability to learn how to do tasks based on the data given for training or initial experience
A	Self organization
B	Adaptive learning
C	Fault tolerance
D	Robustness
Answer	B

Id	46
Question	Feature of ANN in which ANN creates its own organization or representation of information it receives during learning time is
A	Adaptive learning
B	Self organization
C	What-if Analysis
D	Supervised Learning
Answer	B

Id	47
Question	What uses a physical star topology?
A	10 base 5
B	10 base 2
C	10 base T
D	None of these
Answer	C

Id	48
Question	The monitor station in what standard ensures that one and only one token is circulating?
A	802.3
B	802.5
C	Both a and b
D	All of these
Answer	B

Id	49
Question	What can happen at a Token Ring station
A	Examination of the destination address
B	Regeneration of the frame
C	Passing of the frame to the next station
D	All of these
Answer	D

Id	50
Question	In Token Ring when a frame reaches its destination station, then
A	Message is copied
B	Four bits in the packet are changed
C	Message is taken of the ring and replaced by the token
D	Both a and b
Answer	D