The Effective Access Time of Demand Paging is given by the formula

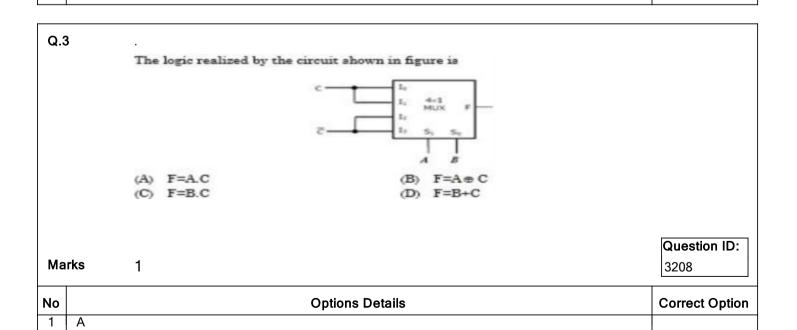
- (A) EAT=(1/p)*m1/p*page fault time
- (B) EAT=(1-p)*m1+p*page fault time
- (C) EAT=(1+p)*m1+p*page fault time
- (D) EAT=(1-p)*m1-p*page fault time

Marks 1

Question ID: 3206

No	Options Details	Correct Option
1	A	
2	В	✓
3	C	

Q.		
	The Effective Access Time of Demand Paging is given by the formula	
	(A) EAT=(1/p)*m1/p*page fault time	
	(B) EAT=(1-p)*m1+p*page fault time	
	(C) EAT=(1+p)*m1+p*page fault time	
	(D) EAT=(1-p)*m1-p*page fault time	
Marks	1	Question ID: 3206
No	Options Details	Correct Option
4 D		
Q.2		
	Given that $AB + \overline{A}C + BC = AB + \overline{A}C$, then $(\overline{A} + C)(A + B)(B + C)$ is equivalent to	
	(A) $(\overline{A} + B)(A + C)$ (B) $(A + B)(\overline{A} + C)$	
	(C) $(A + \overline{B})(\overline{A} + C)$ (D) $(A + \overline{B})(\overline{A} + \overline{C})$	
Marks	1	Question ID: 3207
No	Options Details	Correct Option
1 A 2 B		
		✓



D

2

3

4

В

С

D

Q.4	A mod 4 counter will count	
		Question ID:
Ма	rks 1	3209
No	Options Details	Correct Option
1	from 0 to 4	
2	from 0 to 3	✓
3	from any number n to n+4	
4	from 0 to 1	

Q.	Dividing a binary number by 8 can be accomplished by:	
Ма	rks 1	Question ID: 3210
No	Options Details	Correct Option
1	Clearing the least significant three bits	
2	Shifting left three bits	✓
3	Shifting right three bits	
4	Setting the least significant three bits	

Q.6	;		
		The decimal value 0.5 in IEEE single precision floating point representation has	
		 (A) Fraction bits of 000000 and exponent value of 0 (B) Fraction bits of 000000 and exponent value of -1 (C) Fraction bits of 100000 and exponent value of 0 (D) No exact representation 	
Mai	rks	1	Question ID: 3211
No		Options Details	Correct Option
1	Α		
2	В		✓
3	С		
4	D		

Q.7	7			
		Which one of the following expressions does	NOT represent exclusive NOR of x	
		and y? (A) xy+x'y' (B)	x⊕y'	
		(C) x'ey (D)		
Ma	rks	1		Question ID: 3212
No		Opti	ons Details	Correct Option
1	Α			
2	В			
3	С			
4	D			✓
Q.8	3	The access time of cache is 100 µ then access efficiency related to c	us, the access time of main memory is 90 μs, and hit eache is	ratio is 95%,
	rks	1		Question ID: 3213
No		Opti	ons Details	Correct Option
1	0.9569			✓
2	0.9869			
3	0.9469			
4	0.9969			
Q.9)	The register which keeps track of of the instruction which is to be ex	the execution of a program and which contains the executed next is known as	memory address
Ма	rks	1		Question ID: 3214
Ma No	rks		ons Details	
	rks Index-re	Opti	ons Details	3214
No 1 2	Index-re Memory	Opti gister address register	ons Details	3214
No 1	Index-re Memory Program	Opti gister address register	ons Details	3214

Γ

Q.1	10 Which of the following data transfer mode takes relatively more time?	
Ma	arks 1	Question ID: 3215
No	Options Details	Correct Option
1	DMA	
2	Interrupt initiated I/O	
3	Programmed I/O	✓
4	Isolated I/O	
		1
Q.1	11 Which memory is difficult to interface with processor?	
		Question ID:
Mai	arks 1	3216
		02.10
No	Options Details	Correct Option
	·	Correct Option
1	Static memory	Correct Option
2	-	✓
	Static memory	
2	Static memory Dynamic memory	
2	Static memory Dynamic memory ROM	
2	Static memory Dynamic memory ROM RAM	✓
2 3 4	Static memory Dynamic memory ROM RAM 12 For a magnetic disk with concentric circular tracks, the seek latency is not linear	✓
2 3 4 Q.1	Static memory Dynamic memory ROM RAM 12 For a magnetic disk with concentric circular tracks, the seek latency is not linear seek distance due to	Question ID: 3217
2 3 4	Static memory Dynamic memory ROM RAM 12 For a magnetic disk with concentric circular tracks, the seek latency is not linear seek distance due to Options Details	arly proportional to the
2 3 4 Q.1	Static memory Dynamic memory ROM RAM 12 For a magnetic disk with concentric circular tracks, the seek latency is not linear seek distance due to	Question ID: 3217 Correct Option
2 3 4 Q.1	Static memory Dynamic memory ROM RAM 12 For a magnetic disk with concentric circular tracks, the seek latency is not linear seek distance due to Options Details Non-uniform distribution of requests Arm starting and stopping inertia Higher capacity of tracks on the periphery of	Question ID: 3217
2 3 4 Q.1	Static memory Dynamic memory ROM RAM 12 For a magnetic disk with concentric circular tracks, the seek latency is not linear seek distance due to Options Details Non-uniform distribution of requests Arm starting and stopping inertia	Question ID: 3217 Correct Option

Q.13 System calls are usually invoked by using 1. An indirect jump 2. A software interrupt 3. Polling 4. A privileged instruction (A) 2 and 3 (B) 1 and 3 (C) 1, 2, 3 and 4 (D) 3 and 4 Question ID: Marks 1 3218 **Options Details Correct Option** No 1 Α 2 В 3 С 4 D Q.14 In four-address instruction format, the number of bytes required to encode an instruction is (assume each address requires 24 bits, and 1 byte is required for operation code) Question ID: Marks 1 3219 **Correct Option** No **Options Details** 1 9 2 13 3 14 4 12 Q.15 Consider the following C program segment. #include <stdio.h> int main() char a1[7] = "1234", *p; p = a1 + 2;"p = '0'; Printf("%a", a1); What will be printed by the program? (A) 12 (B) 120400 (C) 1204 (D) 1034 Question ID: Marks 1 3220 **Correct Option** No **Options Details** 1 Α 2 В 3 С

4

D

Q.1	Consider the following recursive C function that takes two arguments unsigned int foo(unsigned int n, unsigned int r) { if (n > 0) return (n%r+ foo (n/r, r)); else return 0; } What is the return value of the function foo when it is called as foo(513, 2)? (A) 9 (B) 8 (C) 5 (D) 2	
Ma	arks 1	Question ID: 3221
No	Options Details	Correct Option
1	A	
2	В	
3	С	
4	D	✓
		•
Q.1	Suppose implementation supports an instruction REVERSE, which reverse the stack, in addition to the PUSH and POP instructions. Which one of the TRUE with respect to this modified stack? arks 1	
No	Options Details	Correct Option
1	A queue cannot be implemented using this stack.	
2	A queue can be implemented where ENQUEUE takes a single instruction and DEQUEUE takes a sequence of two instructions	
3	A queue can be implemented where ENQUEUE takes a sequence of three instructions and DEQUEUE takes a single instruction.	~

A queue can be implemented where both ENQUEUE and DEQUEUE take a single instruction each

```
Q.18
                  The following function reverse() is supposed to reverse a singly linked list. There is one line missing at the end of the function. What should be added in place of
                   "/*ADD A STATEMENT HERE*/", so that the function correctly reverses a linked
                   list.
                   struct node
                   int data;
                   struct node* next;
                   static void reverse(struct node** head_ref)
                   struct node* prev = NULL;
                   struct node* current = *head_ref;
                   struct node* next;
                   while (current != NULL)
                   next = current->next;
                   current->next = prev;
                   current = next;
                   *ADD A STATEMENT HERE*
                   (A) *head_ref = prev;
                                                       (B) *head_ref = current;
                   (C) *head_ref = next;
                                                       (D) "head_ref = NULL;
                                                                                                                                   Question ID:
Marks
                   1
                                                                                                                                   3223
No
                                                        Options Details
                                                                                                                                  Correct Option
      Α
 1
2
      В
 3
       С
 4
      D
Q.19
                   If a node having two children is to be deleted from binary search tree, it is replaced by its
                                                                                                                                   Question ID:
Marks
                   1
                                                                                                                                   3224
No
                                                        Options Details
                                                                                                                                  Correct Option
1
      In-order predecessor
2
      In-order successor
 3
      Pre-order predecessor
```

4

Post-order successor

What is the worst case time complexity of creating a binary min heap from the elements in a binary search tree containing N elements?

(A) O(1)

(B) O(N)

(C) O(log N)

(D) O(NlogN)

Marks 1

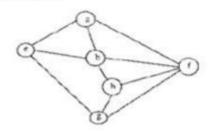
Question ID:

3225

No	Options Details	Correct Option
1	A	
2	В	
3	С	✓
4	D	

Q.21

Consider the following graph,



Among the following sequences:

(I) a, b, e, g, h, f

(II) a, b, f, e, h, g

(III) a, b, f, h, g, e

(IV) a, f, g, h, b, e

Which are depth first traversals of the above graph?

(A) I, II and IV only

(B) I and IV only

(C) II, III and IV only

(D) I, III and IV only

Marks 1

Question ID:

No	Options Details	Correct Option
1	A	
2	В	
3	С	
4	D	✓

Q.:	22	Which one of the followin	ng is the tightest upper bound that represents the	
			sort 'n' numbers using selection sort?	
		(A) O(logn)	(B) O(n)	
		(C) O(n logn)	(D) O(n ²)	
				[O :: ID
Ma	arks	1		Question ID: 3227
No			Options Details	Correct Option
1	Α			
2	В			✓
3	С			
4	D			
Q .:	23	Which of the given entiancy	provides the increasing order of asymptotic complexity	
		of functions f1, f2, f3 and f4		
		f1 (n) = 2^n ; f2 (n) = $n^{5/2}$; f3 (1	n) = nlog, n: f4 (n) = nlssf s	
		to the first the military equity in the extra the contract	n) - mog: n, 14 (n) - n	
		(A) f3, f2, f4, f1	(B) f3, f2, f1, f4	
		(A) f3, f2, f4, f1 (C) f2, f3, f1, f4		
			(B) f3, f2, f1, f4	
			(B) f3, f2, f1, f4	Question ID:
Ma	arks		(B) f3, f2, f1, f4	Question ID: 3228
Ma No	arks	(C) f2, f3, f1, f4	(B) f3, f2, f1, f4	
	arks A	(C) f2, f3, f1, f4	(B) f3, f2, f1, f4 (D) f2, f3, f4, f1	3228
No	A B	(C) f2, f3, f1, f4	(B) f3, f2, f1, f4 (D) f2, f3, f4, f1	3228 Correct Option
No 1 2 3	A B C	(C) f2, f3, f1, f4	(B) f3, f2, f1, f4 (D) f2, f3, f4, f1	3228 Correct Option
No 1 2	A B	(C) f2, f3, f1, f4	(B) f3, f2, f1, f4 (D) f2, f3, f4, f1	3228 Correct Option
No 1 2 3	A B C	(C) f2, f3, f1, f4	(B) f3, f2, f1, f4 (D) f2, f3, f4, f1	3228 Correct Option
No 1 2 3	A B C D	(C) f2, f3, f1, f4	(B) f3, f2, f1, f4 (D) f2, f3, f4, f1 Options Details	3228 Correct Option
No 1 2 3 4	A B C D	(C) f2, f3, f1, f4 1 A hash table of length 10 t	(B) f3, f2, f1, f4 (D) f2, f3, f4, f1 Options Details uses open addressing with hash function h(k) = k mod	3228 Correct Option
No 1 2 3 4	A B C D	(C) f2, f3, f1, f4 1 A hash table of length 10 to 10, and linear probing. Aftable is as shown below. W.	(B) f3, f2, f1, f4 (D) f2, f3, f4, f1 Options Details Options Details uses open addressing with hash function h(k) = k mod ter inserting 6 values into an empty hash table, the hich one of the following choices gives a possible order	3228 Correct Option
No 1 2 3 4	A B C D	(C) f2, f3, f1, f4 1 A hash table of length 10 to 10, and linear probing. Aftable is as shown below. W.	(B) f3, f2, f1, f4 (D) f2, f3, f4, f1 Options Details Options Details uses open addressing with hash function h(k) = k mod for inserting 6 values into an empty hash table, the	3228 Correct Option

0	1	2	3	4	5	6	7	8	9
	42	23	34	52	46	33			

- (A) 46, 42, 34, 52, 23, 33 (B) 34, 42, 23, 52, 33, 46 (C) 46, 34, 42, 23, 52, 33 (D) 42, 46, 33, 23, 34, 52

Marks 1

Question ID: 3229

No	Options Details	Correct Option
1	A	
2	В	
3	С	✓
4	D	

Q.2	Let G be an undirected connected graph with distinct edge weight. Let emax be the edge maximum weight and emin the edge with minimum weight. Which of the following state	
Ma	rke 1	Question ID:
IVIA		3230
No	Options Details	Correct Option
1	F	
	Every minimum spanning tree of G must contain emin	
2		
2	contain emin If emax is in a minimum spanning tree, then	✓
	contain emin If emax is in a minimum spanning tree, then its removal must disconnect G	✓

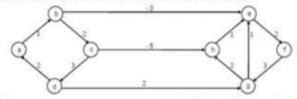
Ma	eko 1	Question ID:
IVIa	rks	3231
No	Options Details	Correct Option
1	Euclidean algorithm to compute the greatest common divisor	
2	Heap Sort	✓
3	Cooley-Tukey fast Fourier transform	
4	Quick Sort	

Which of the following algorithms is NOT a divide & conquer algorithm by nature?

Q.26

Q.27 Floyd-Warshall algorithm utilizes -- to solve the all-pairs shortest paths problem on a directed graph in -(A) Greedy algorithm, θ (V5) (B) Greedy algorithm, θ (V²logn) (C) Dynamic programming, θ (V⁵) (D) Dynamic programming, θ (V²logn) Question ID: Marks 1 3232 No **Options Details Correct Option** 1 Α 2 В 3 С 4 D

Dijkstra's single source shortest path algorithm when run from vertex 'a' in the below graph, computes the correct shortest path distance to



- (A) Only vertex a
- (C) Only vertices a, b, c, d
- (B) Only vertices a, e, f, g, h
- (D) all the vertices

Question ID: 3233

No	Options Details	Correct Option
1	A	
2	В	
3	С	
4	D	✓

Q.29

Given a NFA with N states, the maximum number of states in an equivalent minimized DFA is at least.

Marks 1

Question ID: 3234

 No
 Options Details
 Correct Option

 1
 N^2
 ✓

 2
 2^N
 ✓

 3
 2N
 ✓

 4
 N!
 ✓

Q.30

The regular expression for the language having input alphabets a and b, in which two a's do not come together:

- (A) $(b + ab)^* + (b + ab)^*a$
- (B) $a(b-bb)^{*} + (b-aa)^{*}$
- (C) (b + aa)* (b + ba)*a
- (D) (b+bb)*+(b+ab)*a

Marks 1

Question ID:

No	Options Details	Correct Option
1	A	✓
2	В	
3	С	
4	D	

Q.3	31 .	
	Consider the languages L1 = ϕ and L2 = {a}. Which one of the following represents L1 L2* U L1*	
	(A) {ε} (B) Φ	
	(C) a* (D) {ε,a}	
		Question ID:
Ma	arks 1	3236
No	Options Details	Correct Option
1	A	✓
2	В	
3	C	
4	D	
Q.3	Which of the following automata takes queue as an auxiliary storage?	
۵.۰	Vinion of the following duteriate takes quode as an admirily storage.	
		Question ID:
	and the same of th	
wa	arks 1	3237
No	Options Details	Correct Option
1	Finite automata	-
2	Push down automata	
3	Turing machine	✓
4	2 way linearly bounded automata	
Q.3	CYK algorithm is named CYK because it was invented by	
		Question ID:
Ma	arks 1	3238
No	Options Details	Correct Option
1	John Cocke, TadaoKasami and Daniel H.	✓
	Younger	•
2	Jass Carry, Tom Kosami and Daniel Richy	
3	Cammy lenna, Yousaf, Kosami	

James Coock, Tad Kasim and H D Young

Q.34		Fill in the blank in terms of p, where p is the maximum string length in L.Statement: Finite languages trivially satisfy the pumping lemma by having n = ———			
Ма	rks	1	Question ID: 3239		
No		Options Details	Correct Option		
1	p*1				
2	p+1		✓		
3	p-1				
4	p(p+1)				
Q.3	35	Consider the following statements: 1. The complement of every Turning decidable language is Turning decidable 2. There exists some language which is in NP but is not Turing decidable 3. If L is a language in NP, L is Turing decidable Which of the above statements is/are True? (A) Only 1 and 2 (B) Only 1 and 3 (C) Only 2 (D) Only 2 and 3			
Ма	ırks	1	Question ID: 3240		
No		Options Details	Correct Option		
1	A				
3	В		✓		
4	D				
Q.3	36	A top down parser generates			
Ма	rks	1	Question ID: 3241		
No		Options Details	Correct Option		
1	Rightmo	ost Derivation			
2	_	ost derivation in reverse			
3		st derivation	✓		
4	Left most derivation in reverse				

Q.37 Dividing a project into segments and smaller units in order to simplify design and programming efforts is called? Question ID: Marks 1 3242 No **Correct Option Options Details** 1 Modular approach 2 Top down approach 3 Bottom up approach 4 Left right approach Q.38 What is the grammar for the below equations? S→CC $C \rightarrow c C \mid d$ (A) LL(1) (B) SLR(1) but not LL(1) (C) LALR(1) but not SLR(1) (D) LR(1) but not LALR(1) Question ID: Marks 1 3243 No **Options Details Correct Option** 1 Α 2 В С 3 4 D Q.39 Consider the following grammar: S →FR R →* S | E F →id In the predictive parser table, M, of the grammar the entries M [S, id] and M [R, \$] respectively. (A) {S→FR} and {R→ε} (B) {S→FR} and {} (C) {S→FR} and {R →* S} (D) $\{F \rightarrow id\}$ and $\{R \rightarrow \epsilon\}$ Question ID:

No	Options Details	Correct Option
1	A	✓
2	В	
3	С	
4	D	

3244

Marks

Q.4	10	Output file of the Lex is is the input file is Sam.	
			Question ID:
Ma	rks	1	3245
No		Options Details	Correct Option
1	sam		
2	com w		
	sam.yy.c		✓
3	sam.lex		✓
3			✓
	sam.lex		√

Q.4	1 1	Consider the grammar			
		S→ABSc Abc BA→AB Bb→bb Ab→ab Aa→aa Which of the following:	sentence can be deriv	ed by this grammar?	
		(A) abc (C) abcc	(B) (D)	aab abbc	
Ma	rks	1			Question ID: 3246
No			Options De	tails	Correct Option
1	Α				✓
2	В				
3	С				
4	D				

Q.4	Which of the following is an important component of semantic analysis?	
Ма	rks 1	Question ID: 3247
No	Options Details	Correct Option
1	Symbol table	
2	Type checking	✓
3	Lex	
4	Yacc	

Consider the methods used by processes P1 and P2 for accessing their critical sections whenever needed, as given below. The initial values of shared boolean variables S1 and S2 are randomly assigned.

Method Used by P1 while (S1 == S2);

Critical Section

S1 = S2;

Method Used by P2

while (S1 != S2);

Critical Section

S2 = not (S1);

Which one of the following statements describes the properties achieved?

- (A) Mutual exclusion but not progress
- (B) Progress but not mutual exclusion
- (C) Neither mutual exclusion nor progress
- (D) Both mutual exclusion and progress

Marks 1 Question ID: 3248

No	Options Details	Correct Option
1	A	✓
2	В	
3	С	
4	D	

Q.44

Which of the following statements are true?

- I. Shortest remaining time first scheduling may cause starvation
- II. Preemptive scheduling may cause starvation
- III. Round robin is better than FCFS in terms of response time
- (A) I only

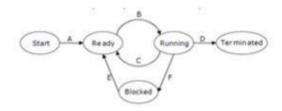
- (B) I and III only
- (C) II and III only
- (D) I, II and III

Marks 1 Question ID:

No	Options Details	Correct Option
1	A	
2	В	
3	С	
4	D	✓

In the following process state transition diagram for a uniprocessor system, assume that there are always some processes in the ready state: Now consider the following

statements:



- If a process makes a transition D, it would result in another process making transition A immediately.
- II. A process P2 in blocked state can make transition E while another process P1 is in running state
- III. The OS uses preemptive scheduling.
- IV. The OS uses non-preemptive scheduling.

Which of the above statements are TRUE?

- (A) I and II
- (B) I and III
- (C) II and III
- (D) II and IV

Marks

Question ID: 3250

No	Options Details	Correct Option
1	A	
2	В	
3	С	✓
4	D	

Q.46 Which of the following is NOT true of deadlock prevention and deadlock avoidance schemes?

Marks 1

Question ID:

No	Options Details	Correct Option
1	In deadlock prevention, the request for resources is always granted if the resulting state is safe	✓
2	In deadlock avoidance, the request for resources is always granted if the result state is safe	
3	Deadlock avoidance is less restrictive than deadlock prevention	
4	Deadlock avoidance requires knowledge of resource requirements a priori	

A computer system supports 32-bit virtual addresses as well as 32-bit physical addresses. Since the virtual address space is of the same size as the physical address space, the operating system designers decide to get rid of the virtual memory entirely. Which one of the following is true?

Marks 1		Question ID: 3252
No	Options Details	Correct Option
1	Efficient implementation of multi-user support is no longer possible	
2	The processor cache organization can be made more efficient now	
3	Hardware support for memory management is no longer needed	✓
4	CPU scheduling can be made more efficient now	

Q.4	What is the swap space in the disk used for?	
Ма	irks 1	Question ID: 3253
No	Options Details	Correct Option
1	Saving temporary html pages	
2	Saving process data	✓
3	Storing the super-block	
4	Storing device drivers	

Q.4	Which one of the following is an advantage of multiprocessor systems?	
Ма	rks 1	Question ID: 3254
No	Options Details	Correct Option
1	Increased modularity	
2	Increased reliability	✓
3	Increased security	
4	Decreased modularity	

Q.5	50	Which of the following indicates the maximum number of entities that can be involved in	n a relationship?
			Question ID:
Ма	rks	1	3255
No		Options Details	Correct Option
1		cardinality	
2	Maximun	n cardinality	✓
3	ERD		
4	Greater I	Entity Count (GEC)	
Q.5	 51	The JOIN operation which uses any of the comparison operator is classified as	
٠.٠	, ,	The convergence which also any of the companion operator is classified as	
			Ouestion ID:
Ma	rke	1	Question ID:
Ma	rks	1	Question ID: 3256
Ma No		Options Details	1 1
No 1	Theta Jo	Options Details	3256
No 1 2	Theta Jo	Options Details	3256 Correct Option
No 1	Theta Jo PI-Join Sigma Jo	Options Details	3256 Correct Option
No 1 2	Theta Jo	Options Details	3256 Correct Option
No 1 2 3	Theta Jo PI-Join Sigma Jo	Options Details	3256 Correct Option
No 1 2 3 4	Theta Jo Pl-Join Sigma Jo Chi-Join	Options Details in bin	3256 Correct Option ✓
No 1 2 3	Theta Jo Pl-Join Sigma Jo Chi-Join	Options Details	3256 Correct Option ✓
No 1 2 3 4	Theta Jo Pl-Join Sigma Jo Chi-Join	Options Details in bin	3256 Correct Option ✓
No 1 2 3 4	Theta Jo Pl-Join Sigma Jo Chi-Join	Options Details in bin	3256 Correct Option ✓
No 1 2 3 4	Theta Jo Pl-Join Sigma Jo Chi-Join	Options Details in bin	3256 Correct Option ✓ ror?
No 1 2 3 4	Theta Jo Pl-Join Sigma Jo Chi-Join	Options Details in bin Which of the following foreign key constraint specifies that the deletion fails with an en	3256 Correct Option ✓ ror? Question ID:
No 1 2 3 4	Theta Jo Pl-Join Sigma Jo Chi-Join	Options Details in bin	3256 Correct Option ✓ ror?
No 1 2 3 4	Theta Jo Pl-Join Sigma Jo Chi-Join	Options Details in bin Which of the following foreign key constraint specifies that the deletion fails with an en	3256 Correct Option ✓ ror? Question ID:
No 1 2 3 4 Q.5	Theta Jo Pl-Join Sigma Jo Chi-Join	Options Details in bin Which of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following foreign key constraint specifies that the deletion fails with an ending of the following fails with a fail with the following fails with a fail with the following fails with the following fails with the fails with the deletion fails with the fails with the fails with the fails wit	3256 Correct Option ✓ ror? Question ID: 3257

SET NULL

NOT NULL

3

Q.ŧ	53	Why use Full Join	in sql?	
Ma	rks	1		Question ID: 3258
No			Options Details	Correct Option
1	l	rows when there is tables	atleast one match	
2		all rows from the lef	t table, even if	
		re no matches in the		
3		all rows from the rig are no matches in the		
4	Return	rows when there is		✓
	the tab	les		
Q.	, ,	values. $F = \{CH \rightarrow G, dependencies (FDs) s$	attributes ABCDEFGH. Fields of R contain only atomic $A \rightarrow BC$, $B \rightarrow CFH$, $E \rightarrow A$, $F \rightarrow EG$ } is a set of functional o that $F+$ is exactly the set of FDs that hold for R. How does the relation R have? (B) 4	
		(C) 5	(D) 6	
Ма	rks	1		Question ID: 3259
No			Options Details	Correct Option
1	Α			
2	В			✓
3	С			
4	D			
Q.	55	Non-leaf nodes a	re also called as	

Q.ŧ	Non-leaf nodes are also called as	
Ма	irks 1	Question ID: 3260
No	Options Details	Correct Option
1	Internal nodes	✓
2	External nodes	
3	Middle nodes	
4	Primary nodes	

Consider the following log sequence of two transactions on a bank account, with initial balance 12000, that transfer 2000 to a mortgage payment and then apply a 5% interest.

- T1 start
- 2. T1 B old=1200 new=10000
- T1 M old=0 new=2000
- 4. T1 commit
- 5. T2 start
- 6. T2 B old=10000 new=10500
- 7. T2 commit

Suppose the database system crashes just before log record 7 is written. When the system is restarted, which one statement is true of the recovery procedure?

- (A) We must redo log record 6 to set B to 10500
- (B) We must undo log record 6 to set B to 10000 and then redo log records 2 and 3
- (C) We need not redo log records 2 and 3 because transaction T1 has committed
- (D) We can apply redo and undo operations in arbitrary order because they are idempotent

Marks ⁻

Question ID: 3261

No	Options Details	Correct Option
1	A	
2	В	✓
3	С	
4	D	

Q.57 Which of the following networks extends a private network across public networks?

Marks 1

Question ID: 3262

No	Options Details	Correct Option
1	Local area network	
2	Virtual private network	✓
3	Enterprise private network	
4	Storage area network	

Q.58 The message 11001001 is to be transmitted using the CRC polynomial x^3 + 1 to protect it from errors. The message that should be transmitted is (A) 11001001000 (B) 11001001011 (C) 11001010 (D) 110010010011 Question ID: Marks 1 3263

		·-
No	Options Details	Correct Option
1	A	
2	В	✓
3	С	
4	D	

Q.59

Marks

Consider the following statements about the routing protocols, Routing Information Protocol (RIP) and Open Shortest Path First (OSPF) in an IPv4

- P. RIP uses distance vector routing
- Q. RIP packets are sent using UDP
 R. OSPF packets are sent using TCP
- OSPF operation is based on link-state routing

Which of the statement above are correct?

(A) P and S only

1

- (B) P, Q and R only
- (C) P, Q and S only
- (D) Q, R and S only

No	Options Details	Correct Option
1	A	
2	В	
3	С	✓
4	D	

Question ID:

Q.6	Which of the following assertions is FALSE about the Internet Protocol (IP)	
Ma	rks 1	Question ID: 3265
No	Options Details	Correct Option
1	It is possible for a computer to have multiple IP addresses	
2	IP packets from the same source to the same destination can take different routes in the network	
3	IP ensures that a packet is forwarded if it is unable to reach its destination within a given number of hopes	
4	The packet source cannot set the route of an outgoing packets; the route is determined only by the routing tables in the routers on the way	√

Q.6	61	5978+6134+7014 = ?	
Ма	ırks	1	Question ID: 3266
No		Options Details	Correct Option
1	16226		
2	19126		✓
3	19216		
4	19226		

Q.6	62	9358 -6014 +3127 =?	
Ма	rks	1	Question ID: 3267
No		Options Details	Correct Option
1	6381		
2	6471		✓
3	6561		
4	6741		

Q.6	63	3578 +5729 - ? 486 = 5821	
Ма	ırks	1	Question ID: 3268
No		Options Details	Correct Option
1	1		
2	2		
3	3		✓
4	5		

Q.6	64	360 x17 = ?		
Ма	rks	1		Question ID: 3269
No		Options Deta	ils	Correct Option
1	5120			
2	5320			
3	6120			✓
4	6130			

Q.6	3 5					
		The Value	of 112 x 54 is:			
		a) 6700	b) 70000	c) 76500	d) 77200	
Ма	rks	1				Question ID: 3270
No			Optio	ns Details		Correct Option
1	Α					
2	В					✓
3	С					
4	D					

Q.6	66	The average of the first five multiples of 3 is	
Ма	rks	1	Question ID: 3271
No		Options Details	Correct Option
1	3		
2	9		✓
3	12		
4	15		

Q.6	67	Find the average of all the numbers between 6 and 34 which are divisible by 5	
Ма	ırks	1	Question ID: 3272
No		Options Details	Correct Option
1	18		
2	20		
3	24		✓
4	30		

Q.6	68 A	train 360m long is running with a speed of 45km/h. In what time will it pass a bridge	140m long;
Ма	irks 1		Question ID: 3273
No		Options Details	Correct Option
1	50 Second	S	
2	40 seconds	3	✓
3	30 seconds	3	
4	35 seconds	3	

Q.	69	A man borrowed Rs.300 with a simple interest rate of 6% Per annum. At the end of back an amount of	6 years he paid
Ma	ırks	1	Question ID: 3274
No		Options Details	Correct Option
1	Rs. 444		
2	Rs440		
3	Rs 408		✓
4	Rs445		

4	Rs445		
Q.70 A sum of Rs. 200 is dependent of the total amount of the		A sum of Rs. 200 is deposited in a post office at the rate of 5.5% simple interest, perir the total amount of the 2 years?	eum.What will be
Ма	arks	1	Question ID: 3275
No		Options Details	Correct Option
1	220		
2	225		
3	222		✓
4	229		

Q.7	71	6 x 66 x 666 = ?	
Ma	ırks	1	Question ID: 3276
No		Options Details	Correct Option
1	263376		
2	263763		
3	263736		✓
4	267336		

Q.7	72	60840 ÷ 234 = ?	
Ма	rks	1	Question ID: 3277
No		Options Details	Correct Option
1	225		
2	255		
3	260		✓
4	310		

Q.7	73 1256 x 3892 = ?	
Ma	rks 1	Question ID: 3278
No	Options Details	Correct Option
1	4883852	
2	4888532	
3	4888352	✓
4	4883582	

Q.7	74 2056 x 987 = ?	
Ма	irks 1	Question ID: 3279
No	Options Details	Correct Option
1	1936372	
2	2029272	✓
3	1896172	
4	1923472	

Q.7	75	217 x 217 + 183 x 183 =?	
Ма	rks	1	Question ID: 3280
No		Options Details	Correct Option
1	79698		
2	80578		✓
3	80698		
4	81268		

Q.7	76	Which one of the following numbers is divisible by 3?	
			Question ID:
Ма	rks	1	3281
No		Options Details	Correct Option
1	4006020		✓
2	2345678		
3	2876423		
4	9566003		
Q.7	77	Which one of the following numbers is divisible by 15?	
	•		
			Question ID:
Ма	rks	1	3282
		'	3202
No		Options Details	Correct Option
1	17325		✓
2	23755		
3	29515		
4	30560		
			I
Q.7	70		
Q.	0	The Present age of Mr. Sanyal is three times the age of his son. Six years of hence th	e ratio of their
		ages will be 5: 2, respectively. What is the present age of Mr. Sanyal?	
			Question ID:
Ma	rks	1	3283
No		Options Details	Correct Option
1	48 Years		Correct Obtion
	. 40 IEal>		i

2

3

4

50 years

54 Years

60 Years

Q.7	79	Sonal is 40 Years old and Nity is 60 Years old. How many years ago the ratio of their a	age was 3 : 5 ?
Ма	rks	1	Question ID: 3284
No		Options Details	Correct Option
1	5 Years		
2	10 Years		✓
3	20 Years		
4	37 Years		
Q.8	30	64% of a number is 2592. what is 88% of that number?	
Ма	rks	1	Question ID: 3285
No		Options Details	Correct Option
1	3202		
2	3458		
3	3564		✓
4	3826		

Q.8	First Woman to act as match referee for men international cricket is	
Ма	rks 1	Question ID: 3286
No	Options Details	Correct Option
1	G. Sarva Lakshmi	✓
2	Mithali Raj	
3	K. Rajeswari	
4	Avanthika Pandey	

Q.8	The Director General of ICRISAT is	
Ma	rks 1	Question ID: 3287
No	Options Details	Correct Option
1	Sanjay Kothari	
2	Aravind Goswamy	✓
3	Jacqueline Hughes	
4	Thomas Hencock	
Q.8		Question ID: 3288
No	Options Details	Correct Option
1	March 16, 2020	
2	April 24, 2020	✓
3	May 20, 2020	
4	June 12, 2020	
Q.8	Which of the following state handed over power supply network to private sector	r?

Ma	rks 1	Question ID: 3289
No	Options Details	Correct Option
1	Gujarat	
2	West Bengal	
3	Orissa	✓
4	Kerala	

Q.8	35	Where is India's 'Silicon Valley' located?		
Ма	rks	1	Question ID: 3290	
No		Options Details	Correct Option	
1	Bengalu	ru	✓	
2	Pune			
3	Hyderab	ad		
4	Baroda			
Q.8	36	What is the maximum time schedule extended for abortions?		
Ма	rks	1	Question ID: 3291	
No		Options Details	Correct Option	
1	10 week			
2	16 week			
3	20 week			
4	24 week	S	✓	
Q.8	Q.87 Who is the Chairman of NABARD?			
Ма	rks	1	Question ID: 3292	
No		Options Details	Correct Option	
1	C. Govin		✓	
2	Dr. G.R.			
3	C. Rang	arajan		
4	Hari Van	nsh Narayanan		

Q.8	World Asthma Day is celebrated on				
Ма	Marks 1				
No	Options Details	Correct Option			
1	April 08				
2	First Tuesday in May	✓			
3	B Last Tuesday in April				
4	July 02				

Q.8	Bharat Ratna (2019) is awarded posthumously to	
Ma	rks 1	Question ID: 3294
No	Options Details	Correct Option
1	Morarji Desai	
2	P.V. Narasimha Rao	
3	Bhupen Hazarika	✓
4	N.T. Rama Rao	

Q.9	"New Dimensions of India's Foreign Policy" was written by	
Ма	irks 1	Question ID: 3295
No	Options Details	Correct Option
1	A.B. Vajpayee	✓
2	V.V. Giri	
3	K.R. Narayanan	
4	Rajiv Gandhi	

Q.91		In spite of our best efforts, we failed to ——— any new facts from him. Pick out the reword from the below given words to fill in the blank to make the above sentence mea complete.		
Marks		1	Question ID: 3296	
No		Options Details	Correct Option	
1	elicit		✓	
2	eject			
3	evoke			
4 enlist				
Q.9	92	Idleness and luxury ——— poverty and want. Choose the appropriate phrase.		

Q.9	Idleness and luxury ——— poverty and want. Choose the appropriate phrase.	
Ма	rks 1	Question ID: 3297
No	Options Details	Correct Option
1	bring out	
2	bring in	
3	bring on	
4	bring forth	✓

Q.	93				
		Find out which part of	the sentence has an error.		
		He knows very well	what is expected from him	n / but he is not able	to fulfill/
		A	В	C	
		all the expectations			
		D			
					Question ID:
Ма	arks	1			3298
			Ontions Datails		Correct Optio
No			Options Details		Correct Optio
No	A		Options Details		Correct Optio
1			Options Details		✓
No 1 2 3	А		Options Details		

Q.9	The synonym of the word, avarice, is		
Mar	Marks 1		
No	Options Details	Correct Option	
1	laziness		
2	business		
3	greediness	✓	
4	encourage		

Q.9	95	The antonym of the word, active, is	
Ма	ırks	1	Question ID: 3300
No		Options Details	Correct Option
1	zeal		
2	tender		
3	lean		
4	inert		✓

Q.9	The meaning of the idiom, Hobson's choice, means	
Marks 1		Question ID: 3301
No	Options Details	Correct Option
1	feeling insecurity	
2	Accept or leave the offer	✓
3	feeling strong	
4	best choice	

Q.9	97	500000 to 5000 to 964			
		Fill in the blanks with	the appropriate word		
		The film turned —	to be a flop.		
		(A) of	(B)	out	
		(C) through	(D)	over	
Ма	ırks	1			Question ID: 3302
No			Options Details		Correct Option
1	A B				
3	С				√
4	D				
Q.9	0.0				
	98	Improve the sentence of It was bitterly most co. (A) bitterly cold (C) bitter cold			
Ma	nrks	It was bitterly most co (A) bitterly cold	ld when we were in Si (B)	mla. bitterly more cold	Question ID: 3303
Ma		It was bitterly most co. (A) bitterly cold (C) bitter cold	ld when we were in Si (B)	mla. bitterly more cold	1
No 1	ırks A	It was bitterly most co. (A) bitterly cold (C) bitter cold	ld when we were in Si (B) (D)	mla. bitterly more cold	3303
No	nrks	It was bitterly most co. (A) bitterly cold (C) bitter cold	ld when we were in Si (B) (D)	mla. bitterly more cold	3303

Q.9	99						
		Fill	in the blanks wit	h the appropriate wo	rd		
		1111					
		(4)	79	a is — gr			
			A, a		B)		
		(C)	A, the	(1	D)	The, the	
Ma	rke	s 1					Question ID:
IVIC	II KS	· !					3304
No				Options Details			Correct Option
1	<i>P</i>						
3	E						✓
4							
							<u>L</u>
Q.	100) .					
		Fill	l in the blanks wi	th the appropriate w	ord		
		The	e ship ————	— last week.			
		(A)	reach		(B)	reaches	
		(C)	has reached		(D)	reached	
							Question ID:
Ma	rks	3 1					3305
No				Options Details			Correct Option
1	P						
3	E						
4							✓
Ι .	ا آ	-					▼