

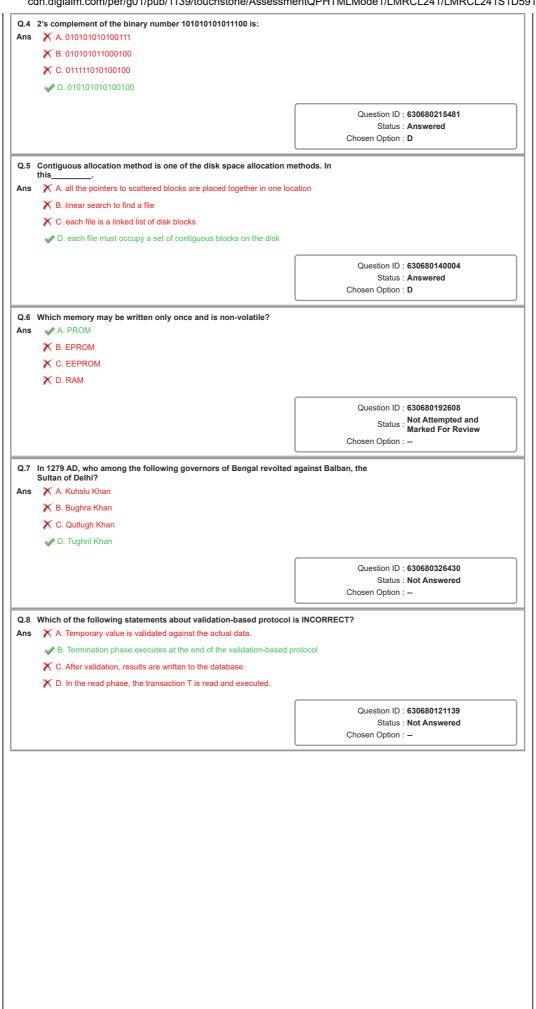
## Uttar Pradesh Metro Rail Corporation Limited

## उत्तर प्रदेश मेट्रो रेल कॉर्पोरेशन लिमिटेड

A joint Venture of Govt. of India and Govt. of Uttar Pradesh

Participant ID	
Participant Name	
Test Center Name	
Test Date	11/05/2024
Test Time	9:00 AM - 11:00 AM
Subject	Assistant Manager IT

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Q.1 Fill in the blank to complete the following sentence by using the correct adverb.
      Your friend is a gentlemanly person. He always behave
       X B. gent
       X C. gentle
       X D. genteel
                                                                                              Question ID: 630680776332
                                                                                                   Status : Answered
                                                                                           Chosen Option : A
Q.2 Consider the Grammar G (V={S},T={a,b},S,P) where V is a non-empty set of variables or non-terminals, T is a set of terminals, S is a start symbol and P is a set of
      production rules given as follows:
      Then the language generated by the grammar is accepted by:
Ans X A. both, non-deterministic finite automata and pushdown automata
       X B. non-deterministic finite automata
        C. pushdown automata
        X D. deterministic finite automata
                                                                                              Question ID: 630680137083
                                                                                                   Status: Answered
                                                                                           Chosen Option : C
Q.3 What is the output of the following code if the input is corona virus disease?
      int main()
        char name[30];
      printf("\n enter name");
      scanf("%s",name);
      gets(name);
      printf("\n %s",name);
      return 0;
Ans X A. corona virus
       X C. corona virus disease
        D. virus disease
                                                                                              Question ID: 630680138096
                                                                                                   Status: Answered
                                                                                           Chosen Option : \boldsymbol{\mathsf{D}}
```



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What is the output of the following code?
      #include <stdio.h>
      int i=!10;
      int main()
         do
        if(i)
      printf("if");
           else
      printf("else");
                 }while(1);
           return 0;
Ans X A. if will be printed once
      X B. The program will print else 10 times
       C. The program will print else infinitely
       X D. else will be printed once
                                                                                       Question ID: 63068066220
                                                                                            Status : Answered
                                                                                    Chosen Option : C
Q.10 What should come in place of the question mark (?) in the given series?
     18, 37, 56, 75, 94, ?
Ans X A. 111
      🗙 B. 114
       X C. 112

✓ D. 113

                                                                                       Question ID: 630680531737
                                                                                            Status : Answered
                                                                                    Chosen Option : D
Q.11 The value of
Ans X A. -18
       ✓ B. 10
       X C. 12
       X D. 13
                                                                                       Question ID: 630680751108
                                                                                            Status: Answered
                                                                                    Chosen Option : B
Q.12 Consider the following statements regarding program counter PC, and select the
     correct option.
P1 - After the fetch cycle, the program counter incremented its value by one.
     P2 - Program counter is a buffer.
Ans X A. Both P1 and P2 are true
       X B. Both P1 and P2 are false.
       C. Only P1 is true
       X D. Only P2 is true.
                                                                                       Question ID: 630680192596
                                                                                            Status : Answered
                                                                                    Chosen Option : C
Q.13 Which of the following is true about three-address code?
Ans X A. There is at least one operator on the right side of the instruction.
       X B. There are many operators on the right side of the instruction.
       X C. There is no operator on the right side of the instruction.
        D. There is at most one operator on the right side of the instruction.
                                                                                       Question ID: 63068063150
                                                                                            Status: Answered
                                                                                    Chosen Option : A
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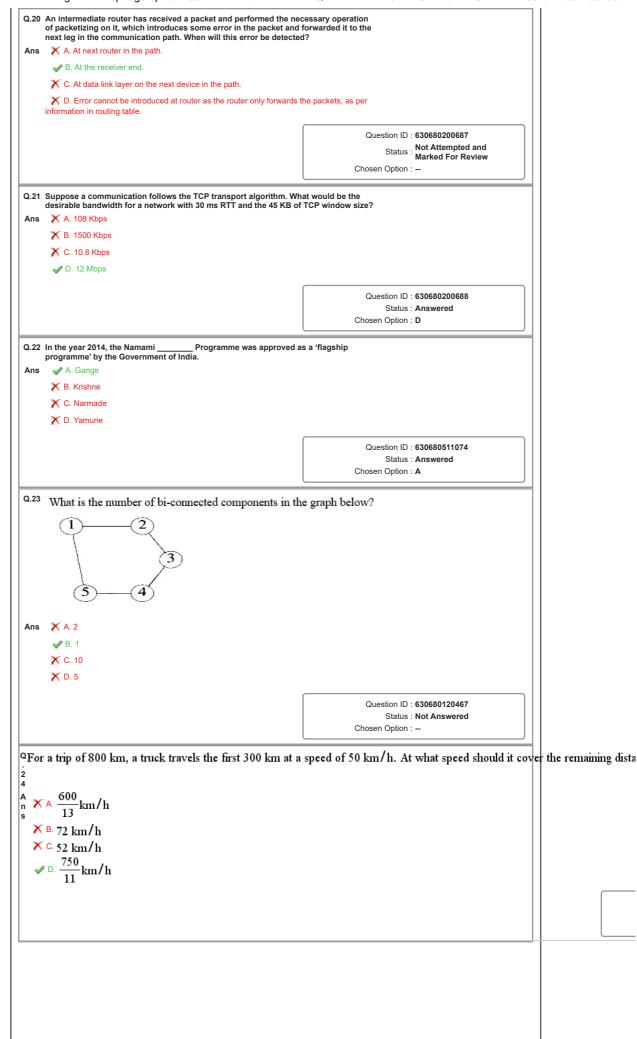
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Q.14 If you apply binarysearch techniques to search an element in the given list of arrays [-15,-6,0,7,9,23,54,82,101,112,125,131,142,151], then the number of comparisons
       required for searching the elements -14 and 151 are as follows _
                                                                                      _, respectively.
      X A. 15 and 14
         X C. 5 and 5
        X D. 4 and 4
                                                                                                    Question ID: 630680183048
                                                                                                         Status : Answered
                                                                                                Chosen Option : D
Q.15 A quadruple (quad) contains 4 fields that are:
Ans X A. op, arg1, result1 and result2
        X B. op, arg1, arg2 and arg3
         C. op, arg1, arg2 and result
        X D. op1, op2, op3 and arg
                                                                                                    Question ID: 63068063151
                                                                                                         Status: Answered
                                                                                                Chosen Option : C
Q.16 Consider relations R1(A,B,C),R2(B,E) and R3(C,E) that contains 400,500 and 3000 tuples, respectively. Compute the maximum size (in tuples) of the resulting relation
      produced by the following relation:R1 × R2 × R3.
      X A. 500
        X B. 3000

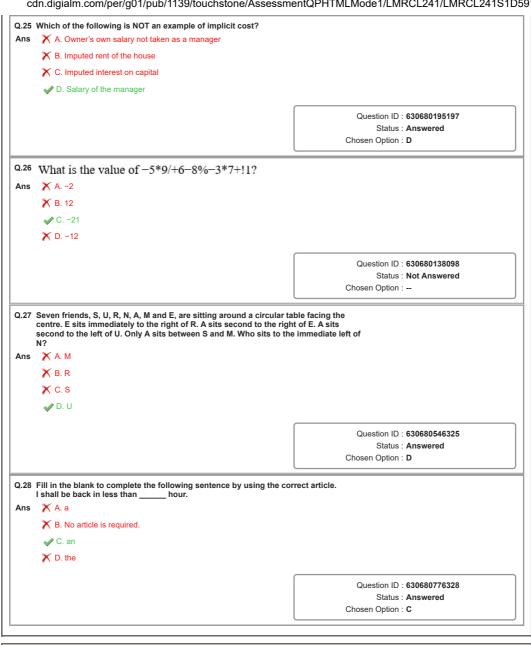
✓ C. 400*500*3000

        X D. 400
                                                                                                    Question ID : 63068066235
                                                                                                         Status : Answered
                                                                                                Chosen Option : C
       The set of strings \Sigma = \{b,c\} that have 10 consecutive b's is:
Ans X A. context sensitive
        X B. context free
         C. regular
        X D. recursive
                                                                                                   Question ID: 630680196321
                                                                                                         Status : Answered
                                                                                                Chosen Option : C
Q.18 Consider a circuit-switching network, in which there is a common shared link of
      capacity 150 Mbps. There are N number of users, each require a bandwidth of 25 Mbps. How many maximum simultaneous connection(s) can be possible in such type
      of network? Assume negligible band gap.
Ans X A. Zero

✓ B. One

        X C. Six
        X D. Three
                                                                                                    Question ID: 630680200668
                                                                                                         Status : Answered
                                                                                                Chosen Option : C
Q.19 Fatehpur Sikri was built by
Ans X A. Humayun
         B. Akbar
        X C. Shahjahan
        X D. Babur
                                                                                                    Question ID: 630680339399
                                                                                                         Status: Not Answered
                                                                                                Chosen Option : --
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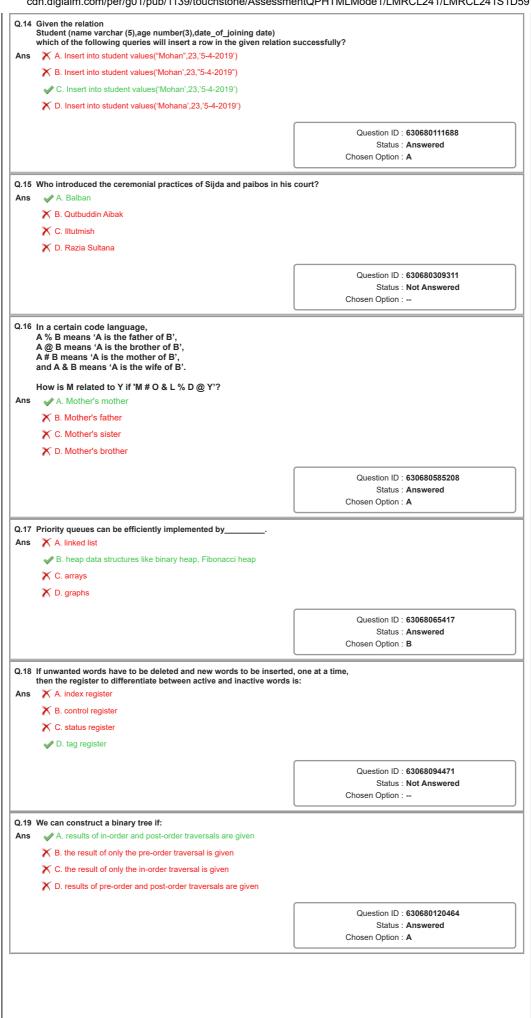


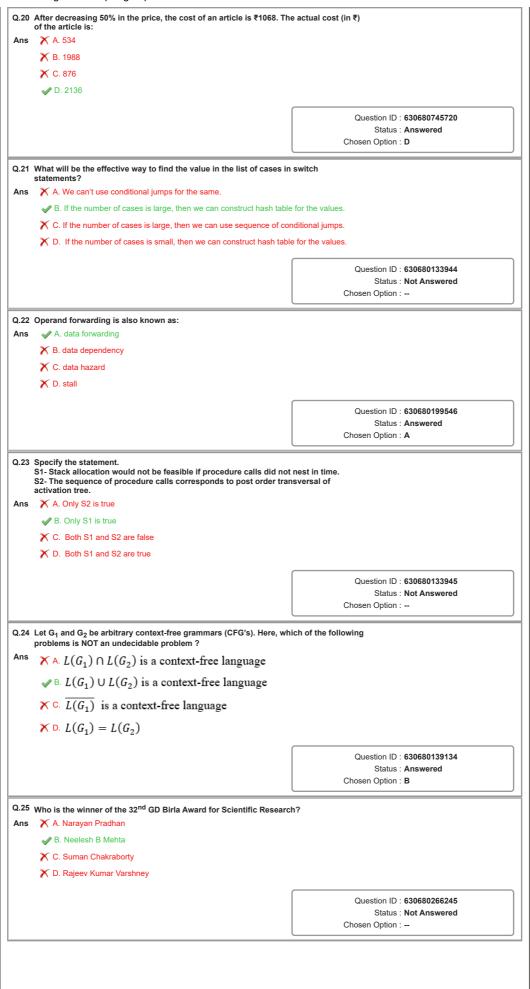


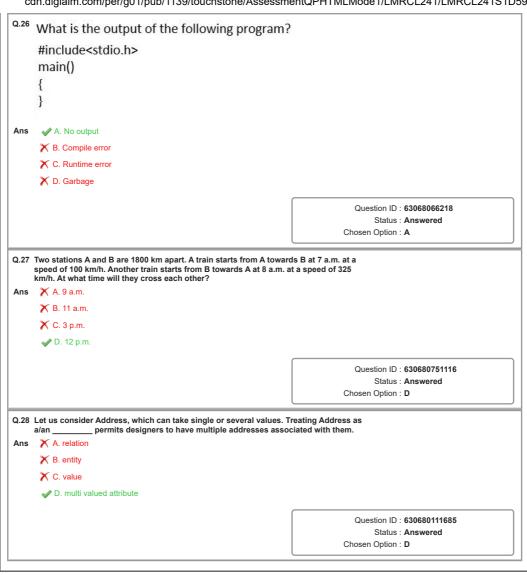


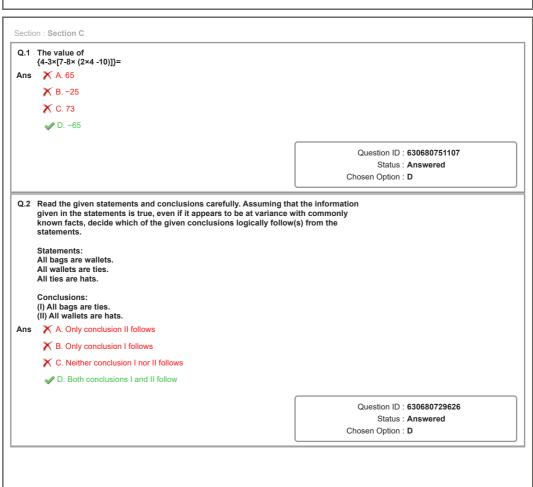
	Process Id	Arrival tim	e Burst time						
	Pl	3	4						
	P2	5	3						
	P3	0	2						
	P4	5	1	1					
	P5	4	3	1					
		1 above table I urnaround tim		duling policy	y is FCFS non-pr	re-emptive m	ethod then, calculate		
Ans	X A. 6								
	<b>★</b> B. 3.2								
	X C. 4.8								
	<b>✓</b> D. 5.8								
	•								
								: 63068061907	
							Status Chosen Option	: Answered	
						L	Chosen Option	. b	
Q.4 Ans	has been fo	ound in the point the corru	received IP p	acket. Wh		vill now fet	um. A mismatch ich the source IP arameter		
							Overtion ID		
								: 63068099786 : Answered	
							Chosen Option	: <b>C</b>	
	given below 10, 8, 5, 4, 3 Two elementraversal of	v: 3 nts'2'and '9' f the heap a	are inserted	into the h	e level-order tr eap in that ord elements is:				
	given below 10, 8, 5, 4, 3  Two element traversal of A. 10, 4  B. 10, C. 10,	v: 3 htts'2'and '9' f the heap at 8, 9, 2, 3, 4, 8, 9, 4, 3, 2, 8, 9, 5, 4, 3,	are inserted fter the inser 5 5	into the h	eap in that or				
Q.5 Ans	given below 10, 8, 5, 4, 3  Two element traversal of A. 10, 4  B. 10, C. 10,	v: 3 hts'2'and '9' f the heap at 8, 9, 2, 3, 4, 8, 9, 4, 3, 2,	are inserted fter the inser 5 5	into the h	eap in that or				
	given below 10, 8, 5, 4, 3  Two element traversal of A. 10, 4  B. 10, C. 10,	v: 3 htts'2'and '9' f the heap at 8, 9, 2, 3, 4, 8, 9, 4, 3, 2, 8, 9, 5, 4, 3,	are inserted fter the inser 5 5	into the h	eap in that or		vel-order Question ID	: 63068065197 : Answered : B	
Ans	given belov 10, 8, 5, 4, 3  Two element traversal of A. 10,   B. 10,  C. 10,  D. 10,   Consider th (i) Instantal  (ii) L is recc	nts'2'and '9' if the heap a' 8, 9, 2, 3, 4, 8, 9, 4, 3, 2, 8, 9, 5, 4, 3, 8, 9, 5, 4, 3, en following neous descrete ognised by a by a TM wit	are inserted fter the inser 5 5 2 5 statement a riptions cann	into the h tion of the  nd identify ot be desi hine with a	eap in that ore elements is: y the correct s igned for a Tui a two-way infi	der. The le	Question ID Status Chosen Option	: Answered	
Ans	given belov 10, 8, 5, 4, 3  Two element traversal of A. 10,   B. 10,  C. 10,  D. 10,  Consider the (i) Instantal (ii) L is recording to the consider the consideration that the considera	nts'2'and '9' if the heap a' 8, 9, 2, 3, 4, 8, 9, 4, 3, 2, 8, 9, 5, 4, 3, 8, 9, 5, 4, 3, en following neous descrete ognised by a by a TM wit	are inserted fter the inser 5 5 2 5 statement a riptions canr	into the h tion of the	eap in that ore elements is: y the correct s igned for a Tui a two-way infi	der. The le	Question ID Status Chosen Option s). ne.	: Answered	
Ans	given belov 10, 8, 5, 4, 3  Two element traversal of A. 10,   B. 10,  Consider the Consideration that the	nts'2'and '9' i the heap at 8, 9, 2, 3, 4, 8, 9, 4, 3, 2, 8, 9, 5, 4, 3, 8, 9, 5, 4, 3, 9, 5, 4, 3, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	are inserted fiter the insert 5 5 2 5 statement a riptions cann a Turing mac th a one-way	into the h tion of the	eap in that ore elements is: y the correct s igned for a Tui a two-way infi	der. The le	Question ID Status Chosen Option s). ne.	: Answered	
Ans	given belov 10, 8, 5, 4, 3  Two element traversal of A. 10,   B. 10,  Consider the Consideration that the	nts'2'and '9' if the heap at 8, 9, 2, 3, 4, 8, 9, 4, 3, 2, 8, 9, 5, 4, 3, 8, 9, 5, 4, 3, 8, 9, 3, 4, 2, he following neous descr tognised by a by a TM wit y (i) y (ii) n (i) and (ii)	are inserted fiter the insert 5 5 2 5 statement a riptions cann a Turing mac th a one-way	into the h tion of the	eap in that ore elements is: y the correct s igned for a Tui a two-way infi	der. The le	Question ID Status Chosen Option s). ne. c, and only if, it is	: Answered : B	
Ans	given belov 10, 8, 5, 4, 3  Two element traversal of A. 10,   B. 10,  Consider the Consideration that the	nts'2'and '9' if the heap at 8, 9, 2, 3, 4, 8, 9, 4, 3, 2, 8, 9, 5, 4, 3, 8, 9, 5, 4, 3, 8, 9, 3, 4, 2, he following neous descr tognised by a by a TM wit y (i) y (ii) n (i) and (ii)	are inserted fiter the insert 5 5 2 5 statement a riptions cann a Turing mac th a one-way	into the h tion of the	eap in that ore elements is: y the correct s igned for a Tui a two-way infi	der. The le	Question ID Status Chosen Option s). ne. i, and only if, it is	: Answered	
Ans	given belov 10, 8, 5, 4, 3  Two element traversal of A. 10,   B. 10,  Consider the Consideration that the Consideration the Consideration that the Cons	nts'2'and '9' if the heap at 8, 9, 2, 3, 4, 8, 9, 4, 3, 2, 8, 9, 5, 4, 3, 8, 9, 5, 4, 3, 8, 9, 3, 4, 2, he following neous descr tognised by a by a TM wit y (i) y (ii) n (i) and (ii)	are inserted fiter the insert 5 5 2 5 statement a riptions cann a Turing mac th a one-way	into the h tion of the	eap in that ore elements is: y the correct s igned for a Tui a two-way infi	der. The le	Question ID Status Chosen Option s). ne. i, and only if, it is	: Answered : B	
Q.6	given belov 10, 8, 5, 4, 3  Two element traversal of A. 10,   B. 10,  C. 10,  D. 10,  D. 10,  Consider the first of the fi	the size of the heap at the he	are inserted fter the inser 5 5 2 5 statement a riptions can a Turing mac th a one-way	into the h tion of the  nd identify of be desi hine with a infinite ta	the correct s gned for a Tura a two-way infinite.	t line, facir and A. Onl	Question ID Status Chosen Option  a).  Question ID Status Chosen Option  Question ID Status Chosen Option  ag north. Only two y one person sits ate neighbor of A.	: Answered : B	
Q.6 Ans	given below 10, 8, 5, 4, 3  Two element traversal of  A. 10,  B. 10,  C. 10,  D. 10,  D. 10,  C. Bott  A. Only  B. Only  A. Thre  B. One  C. Foul	the size of the heap at the he	are inserted fiter the insert 5 5 2 5 statement a riptions cann a Turing mac th a one-way	into the h tion of the  nd identify of be desi hine with a infinite ta	the correct s gned for a Tura a two-way infinite.	t line, facir and A. Onl	Question ID Status Chosen Option  Question ID Status Chosen Option  Question ID Status Chosen Option  Ig north. Only two y one person sits ate neighbor of A.	: Answered : B	
Q.6 Ans	given below 10, 8, 5, 4, 3  Two element traversal of  A. 10,  B. 10,  C. 10,  D. 10,  D. 10,  C. Bott  A. Only  B. Only  A. Thre  B. One  C. Foul	the size of the heap at the he	are inserted fiter the insert 5 5 2 5 statement a riptions cann a Turing mac th a one-way	into the h tion of the  nd identify of be desi hine with a infinite ta	the correct s gned for a Tura a two-way infinite.	t line, facir and A. Onl	Question ID Status Chosen Option  Question ID Status Chosen Option  Question ID Status Chosen Option  Ig north. Only two y one person sits ate neighbor of A.	: Answered : B	

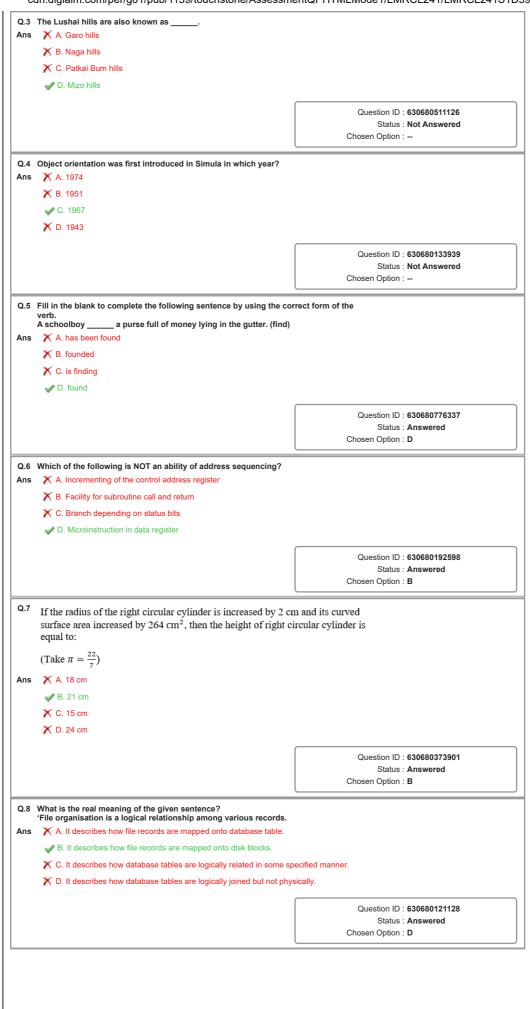
	X A. Link loader is used to convert symbolic instructions into binary.		
	X B. Interpreter is used to convert symbolic instructions into binary.		
	C. Assembler is used to convert symbolic instructions into binary.		
	X D. Compiler is used to convert symbolic instructions into binary.		
		Question ID	63068094449
			Answered
		Chosen Option	С
2.9	What to do to terminate a half-open connection (at the sender) in a scenario if all DISCONNECTION REQUEST (DR) segments (FIN and		
ns	in the transition?  X A. Automatically terminates after timeout of the last DR from the re	ceiver	
113	X B. Half open connection automatically terminates if any party have		
	C. Automatically terminates after timeout of the first DR		
	✓ D. Automatically terminates after timeout of the last DR from the s	ender	
	2.7 decination, terminated and amount of the decision and the		
			630680136047
		Status Chosen Option	Not Answered
		Опозен Орион	
ns	output of the control gating circuit is 175 ns.  X A. 3.33 MHz  B. 4.44 MHz  C. 2.22 MHz  D. 1.11 MHz		
	D. 1.11 WHZ		
		Question ID	630680215482
		Status Chosen Option	Not Answered
		<u> </u>	
	X B. Krishna X C. Vishnu		
	X D. Rama		
	X D. Rama		
	X D. Rama		630680163719
	X D. Rama	Status	Not Answered
	X D. Rama		Not Answered
.12	Fill in the blank to complete the following sentence by using the co	Status Chosen Option	Not Answered
		Status Chosen Option	Not Answered
	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.	Status Chosen Option	Not Answered
	Fill in the blank to complete the following sentence by using the colt looks so delicious. Pasta is an cuisine.  X A. Italy's	Status Chosen Option	Not Answered
	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's  X B. Italy	Status Chosen Option	Not Answered
	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's X B. Italy C. Italian	Status Chosen Option	Not Answered
	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's X B. Italy C. Italian	Chosen Option  prrect adjective.  Question ID	Not Answered 630680776329
	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's X B. Italy C. Italian	Chosen Option  Prrect adjective.  Question ID Status	Not Answered 630680776329 Answered
	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's X B. Italy C. Italian	Chosen Option  prrect adjective.  Question ID	Not Answered 630680776329 Answered
uns	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's  X B. Italy  C. Italian  X D. Italic  Fill in the blank to complete the following sentence by using the collections of the collection of the collectio	Question ID Status Chosen Option	Not Answered 630680776329 Answered
.ns	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X. A. Italy's  X. B. Italy  C. Italian  X. D. Italic  Fill in the blank to complete the following sentence by using the college of the month at the	Question ID Status Chosen Option	Not Answered 630680776329 Answered
.13	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's  X B. Italy  C. Italian  X D. Italic  Fill in the blank to complete the following sentence by using the collections of the collection of the collectio	Question ID Status Chosen Option	Not Answered 630680776329 Answered
n.13	Fill in the blank to complete the following sentence by using the coll t looks so delicious. Pasta is an cuisine.  X A. Italy's  X B. Italy  C. Italian  D. Italic  Fill in the blank to complete the following sentence by using the collection of the month at the A. by  B. at	Question ID Status Chosen Option	Not Answered 630680776329 Answered
n.13	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's  X B. Italy  C. Italian  D. Italic  Fill in the blank to complete the following sentence by using the collection of the month at the A. by  X B. at  X C. in	Question ID Status Chosen Option	Not Answered 630680776329 Answered
Ans	Fill in the blank to complete the following sentence by using the coll t looks so delicious. Pasta is an cuisine.  X A. Italy's  X B. Italy  C. Italian  D. Italic  Fill in the blank to complete the following sentence by using the collection of the month at the A. by  B. at	Question ID Status Chosen Option	Not Answered 630680776329 Answered
Q.13	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's  X B. Italy  C. Italian  D. Italic  Fill in the blank to complete the following sentence by using the collection of the month at the A. by  X B. at  X C. in	Question ID Status Chosen Option  Question ID Status Chosen Option  Orrect preposition.	Not Answered 630680776329 Answered C
Ans 0.13	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's  X B. Italy  C. Italian  D. Italic  Fill in the blank to complete the following sentence by using the collection of the month at the A. by  X B. at  X C. in	Question ID Status Chosen Option  Question ID Status Chosen Option  Orrect preposition.  Question ID Status Status Chosen Option	Not Answered 630680776329 Answered C 630680776334 Answered
n.13	Fill in the blank to complete the following sentence by using the coll tooks so delicious. Pasta is an cuisine.  X A. Italy's  X B. Italy  C. Italian  D. Italic  Fill in the blank to complete the following sentence by using the collection of the month at the A. by  X B. at  X C. in	Question ID Status Chosen Option  Question ID Status Chosen Option  Orrect preposition.	Not Answered 630680776329 Answered C 630680776334 Answered

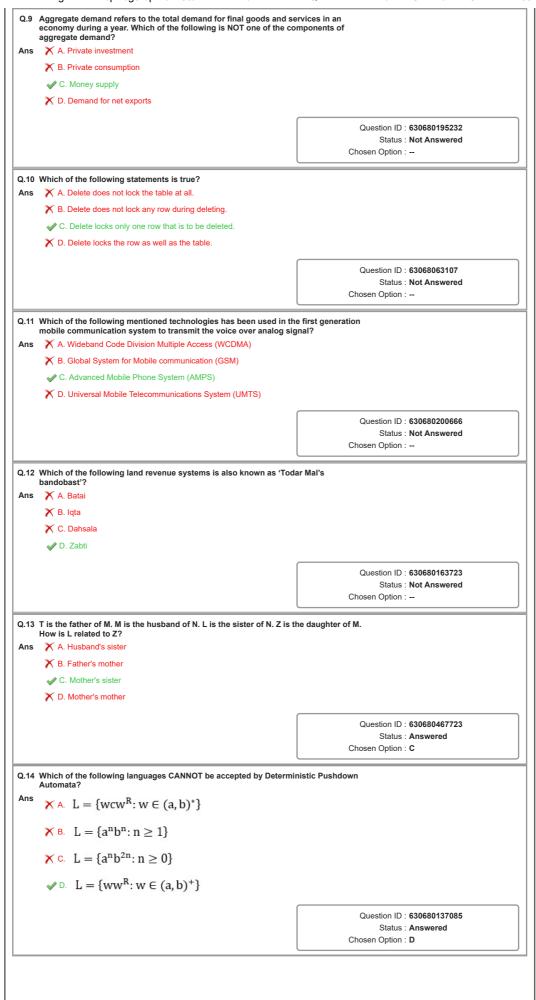












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Solve the recurrence. T(n)=49\,T(\frac{n}{25})+n^{\frac{3}{2}}\,\log\,n
Ans \times A. n^{\frac{5}{2}}
      \times B. O\left(n^{\left(\frac{3}{2}\right)}n\log(n)\right)
      \times c. n^{\frac{3}{2}log^2}n

\checkmark D. O\left(n^{\left(\frac{3}{2}\right)}\log(n)\right)

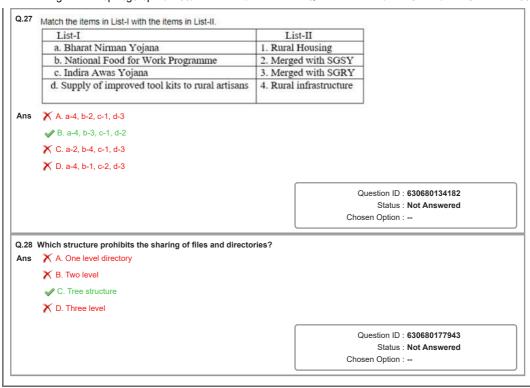
                                                                                           Question ID: 630680203940
                                                                                                Status : Answered
                                                                                        Chosen Option : D
Q.16 Consider a system with physical memory size of 4 frames and a
     page reference string: 1, 2, 3, 4, 1, 2, 5, 1, 2, 3, 4, 5. Using the FIFO
      (First-In-First-Out) page replacement algorithm, determine the
     number of page faults. Assume initially, the frames are empty.
Ans X A. 9
       ✓ B. 10
       X C. 8
       X D. 11
                                                                                           Question ID: 630680755139
                                                                                                Status : Answered
                                                                                        Chosen Option : B
Q.17 Which of the following statements is FALSE?
Ans X A. L<sup>+</sup> is a subset of L*
       \times B. abaab<sup>4</sup> = abaabbbb
       X C. (L*)* = L*
        ✓ D. If L* = L+, then L is an empty set
                                                                                            Question ID: 63068081730
                                                                                                Status: Answered
                                                                                        Chosen Option : D
Q.18 A syntax directed definition is:
Ans X A. an unrestricted grammar
       X B. a context-sensitive grammar
        C. a context-free grammar
       X D. a regular grammar
                                                                                           Question ID : 63068063146
                                                                                                Status: Answered
                                                                                        Chosen Option: C
Q.19 Which of the following statements about program counter is correct?
Ans X A. Every instruction is fetched from external memory at the address in the program
     counter, and stored in the data register
        B. Every instruction is fetched from external memory at the address in the program
     counter, and stored in the instruction register
      X C. Every instruction is fetched from external memory at the address in the program
     counter, and stored in the memory address register
      X D. Every instruction is fetched from external memory at the address in the program
     counter, and stored in the accumulator.
                                                                                           Question ID: 630680137160
                                                                                                Status : Answered
                                                                                        Chosen Option : B
Q.20 What is the other name for a postfix expression?
Ans A. Reverse polish notation
       X B. Infix notation
       X C. Normal polish notation
       X D. Warsaw notation
                                                                                           Question ID: 63068065425
                                                                                                Status : Answered
                                                                                         Chosen Option : A
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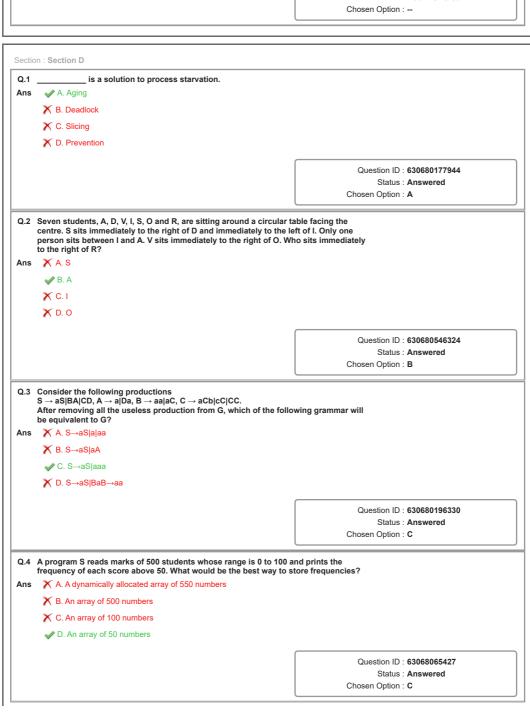
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Q.21 Fill in the blank to complete the following sentence by using the correct preposition.

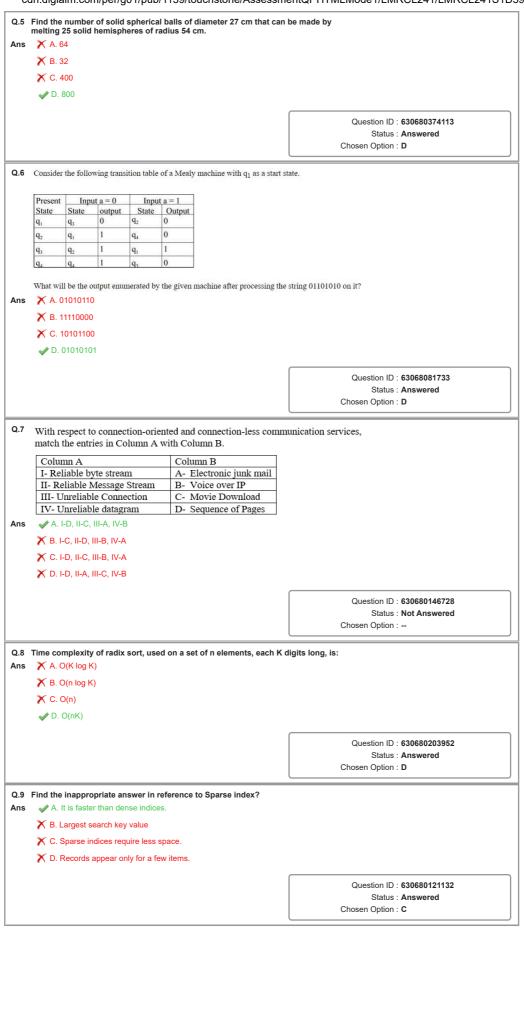
I will call at your office some time ______ the morning.
Ans X A. on
        X C. around
        X D. at
                                                                                                    Question ID: 630680776333
                                                                                                          Status: Answered
                                                                                                 Chosen Option : B
Q.22 Which of the following statements about domain constraints are correct?
      (a).A valid set of values for an attribute.
(b). The data type of domain includes string, date, time and currency.
      (c). Primary key value cannot be null.
(d). It is specified between two tables.
        A. a and b
        X B. b and c
        X C. a, b and c
        X D. a, b, c and d
                                                                                                    Question ID: 630680121127
                                                                                                          Status: Answered
                                                                                                 Chosen Option : C
Q.23 Specify the statement.
P1- Direct implementation of normal static scope rule for nested functions is done by
      adding access link pointer to each activation record.

P2- Global variables are allocated static storage for the languages that doesn't allow
      nested procedure declarations.
Ans
       A. Both P1 and P2 are true
        X B. Only P1 is true
        X C. Only P2 is true
        X D. Both P1 and P2 are false
                                                                                                    Question ID: 630680133946
                                                                                                          Status: Not Answered
                                                                                                 Chosen Option: --
Q.24 If there are 6 units of resource R in the system and each process in the system
       requires 2 units of resource R, then how many processes can be present at maximum
       so that no deadlock will occur?
Ans X A. 7
        X B. 4
        ✓ C. 5
        X D. 6
                                                                                                    Question ID: 63068061823
                                                                                                         Status: Answered
                                                                                                 Chosen Option : \boldsymbol{\mathsf{C}}
Q.25 Check the following condition whenever a transaction Ti executes a Read (X)
      operation:
Ans X A. If W_TS(X) >TS(Ti)

✓ B. If W_TS(X) <= TS(Ti)
</p>
        C. If TS(X) < W_TS(Ti)
        TD. If TS(Ti) < R_TS(X)
                                                                                                    Question ID: 630680121138
                                                                                                          Status : Answered
                                                                                                 Chosen Option : B
Q.26 Which of the following is NOT a constant?
Ans 💜 A. "abc"
        X B. 23
        X C. 'b'
        X D. 1.447
                                                                                                    Question ID: 63068066216
                                                                                                          Status : Answered
                                                                                                 Chosen Option : A
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Q.10 Path compression algorithm is used during which of the following operations?
        A. Find set operation
        X B. Insert set operation
        X C. Make set operation
        X D. Create set operation
                                                                                                     Question ID: 63068095110
                                                                                                           Status : Answered
                                                                                                  Chosen Option : A
Q.11 DNS have two types of servers: primary and secondary. What is the use of the secondary server? (select the most appropriate)
Ans X A. For a large 'zone', the primary stores half of the zone information and the secondary
      have the rest.
        X C. It creates and updates zone information.
        X D. It does nothing, just a replica of the primary.
                                                                                                     Question ID: 63068099824
                                                                                                           Status: Not Answered
                                                                                                  Chosen Option : --
Q.12 Consider the Grammar G (V={S,A,B},T={a,b,c},S,P) where V is a non-empty set of variables or non-terminals, T is a set of terminals, S is a start symbol and P is a set of
       production rules given as follows:
       S \rightarrow Aa.S \rightarrow B.B \rightarrow A.B \rightarrow bb.A \rightarrow a.A \rightarrow bc.A \rightarrow B
      Then, which of the following production sets is equivalent to grammar G after
      removing all unit productions?
      X A. S\rightarrowAa,S\rightarrowbc,S\rightarrowbb,B\rightarrowa,B\rightarrowbb,B\rightarrowbc ,A\rightarrowa,A\rightarrowbc,A\rightarrowbb
        X B. S\rightarrowAa,S\rightarrowa,S\rightarrowbc,S\rightarrowbb,B\rightarrowa,B\rightarrowbb,B\rightarrowbc ,A\rightarrowa,A\rightarrowbc
        \nearrow D. S\rightarrowAa,S\rightarrowa,B\rightarrowa,B\rightarrowbb,B\rightarrowbc ,A\rightarrowa,A\rightarrowbc,A\rightarrowbb
                                                                                                     Question ID: 630680137089
                                                                                                           Status: Answered
                                                                                                  Chosen Option : C
Q.13 The basic purpose of creating VLAN (Virtual LAN) is:
Ans A. VLANs decrease the number of broadcast domains while decreasing their size
        X B. VLANs increase the number of collision domains while decreasing their size
        X C. VLANs increase the number of broadcast domains while decreasing their size
        X D. VLANs greatly reduce the unnecessary network security in local LAN
                                                                                                     Question ID: 630680200677
                                                                                                           Status : Answered
                                                                                                  Chosen Option : C
Q.14 An instruction MUL 4567 is a:
Ans X A. 3 address instruction format
        X B. 2 address instruction format
        X C. 0 address instruction format
         D. 1 address instruction format
                                                                                                     Question ID: 630680192589
                                                                                                           Status: Not Answered
                                                                                                  Chosen Option : --
Q.15 The given array is arr = {1,2,3,4,5} (bubble sort is implemented with a flag variable).
       The number of iterations in selection sort and bubble sort, respectively, are:
Ans X A, 0 and 4
        X C. 5 and 4
        X D. 4 and 1
                                                                                                     Question ID: 63068076335
                                                                                                          Status: Answered
                                                                                                  Chosen Option : D
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Q.16 How many memory accesses are required for 3 address instructions?

✓ A. 7

       X B. 21
       X C. 3
       X D. 14
                                                                                             Question ID: 630680137151
                                                                                                  Status: Answered
                                                                                          Chosen Option : C
Q.17 Specify the statement.
P1- For removing conflicts, we have to specify operator precedence and associativity.
      P2- For removing conflicts, we have to restructure the grammar.
Ans X A. Only P2 is true
        X C. Both P1 and P2 are false
       X D. Only P1 is true
                                                                                             Question ID: 630680133943
                                                                                                  Status: Not Answered
                                                                                          Chosen Option : --
Q.18 Which of the following is NOT a salient feature of microfinance institutions (MFIs)?
Ans X A. These institutions offer loans to individuals who belong to the low-income group.
       X B. The loans that are offered by these institutions are of small amount and are known as
     microloans
       X C. MFIs give loans to those people who want to start up a business of their own, without
      any security or collateral.

✓ D. MFIs provide loans to borrowers for a long period. Once they repay the loan, they

      can again opt for another loan.
                                                                                             Question ID : 630680195219
                                                                                                  Status: Not Answered
                                                                                          Chosen Option : --
Q.19 Identify one word for the following group of words.
"a set of straps and fittings with which a horse or other draught animal is fastened to a
      cart, plough etc.
     X A. hammock
       X B. saddle
        C. harness
       X D. anchor
                                                                                             Question ID: 630680776339
                                                                                                  Status: Not Answered
                                                                                          Chosen Option : --
Q.20 QORA is related to XVYH in a certain way based on the English alphabetical order. In
the same way, XFUR is related to EMBY. To which of the following is KEIC related,
      following the same logic?
     🗶 A. RUPL
        X C. SNOK
       X D. SMQK
                                                                                             Question ID: 630680582729
                                                                                                  Status : Answered
                                                                                          Chosen Option : B
Q.21 Reorder the following sentences to form a meaningful paragraph.
      M.Sukanya had gone to take a bath in a river when the holy man asked her not to
      disturb him.
      N. The princess was vain and once earned the wrath of an ascetic.
      O. A Hindu legend has it that the Gangetic dolphin was once a beautiful princess,
      called Sukanya.
      P. The vain princess was turned into a dolphin, susaka.
      Q.The princess continued bathing. The enraged ascetic cursed her to a life in the river.
Ans X A. P, O, M, N, Q
        X C. O, M, N, P, Q
        X D. O, M, P, N, Q
                                                                                             Question ID: 630680776338
                                                                                                  Status: Answered
                                                                                          Chosen Option : B
```

Q.22 If you want to search an element in the given sorted array of 'n' elements by using binary search techniques, where n is a power of 2, then which of the following options represents the recurrence relation of binary search?

**X** B. 
$$T(n) = \begin{cases} 1, & \text{if } n = 1 \\ 7T(n/2) + c, & \text{if } n > 1 \end{cases}$$

$$\times$$
 c.  $T(n) = \begin{cases} 1, & \text{if } n = 1 \\ 2T(n/2) + c, & \text{if } n > 1 \end{cases}$ 

$$ightharpoonup$$
 D.  $T(n) = \begin{cases} 1, & \text{if } n = 1 \\ T(n-1) + c, & \text{if } n > 1 \end{cases}$ 

Question ID: 630680120468 Status : Answered Chosen Option : A

Q.23 If the time for a merging operation is proportional to n, then which of the following options represents the recurrence relation of merge sort, where n represents the number of elements to be sorted and a ,c are constants?

$$\mathbf{X}$$
 A.  $T(n) = \begin{cases} a, \text{ if } n = 1 \\ T(n/2) + cn, \text{ if } n > 1 \end{cases}$ 

$$\text{ c. } T(n) \ = \begin{cases} 1, \text{if } n = 1 \\ T(n/2) + c \,, \text{if } n > 1 \end{cases}$$

$$T(n) = \begin{cases} 1, & \text{if } n = 1 \\ 2T(n/2) + c, & \text{if } n > 1 \end{cases}$$

Question ID: 630680120470 Status: Answered Chosen Option : B

Q.24 By how much is 30% of 75 greater than 30% of 35?

Ans X A. 7

X B. 9

X C. 14

**⊘** D. 12

Question ID: 630680745723 Status : Answered Chosen Option : D

Q.25 A certain computer system has the segmented paging architecture for virtual memory The memory is byte addressable. Both virtual and physical address spaces contain 216 bytes each. The virtual address space is divided into 8 non-overlapping equal size segments. The memory management unit (MMU) has a hardware segment table, each entry of which contains the physical address of the page table for the segment. Page tables are stored in the main memory and consist of 2 byte page table entries... Assume that each page table entry contains (besides other information) 1 valid bit, 3 bits for page protection and 1 dirty bit. Find the number of frames in the main memory. Assume that page size is 512 bytes.

Ans X A. 4 bits

X B. 5 bits

✓ C. 7 bits

X D. 8 bits

Question ID: 630680140005 Status: Not Answered Chosen Option : --

Q.26 What is the rank of India in the Network Readiness Index-2022?

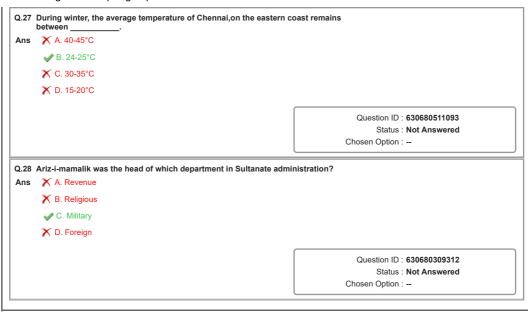
Ans X A. 74<sup>th</sup>

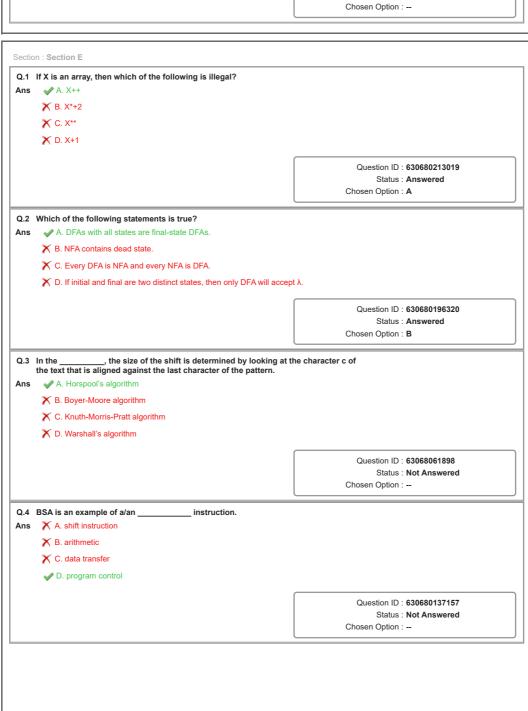
**X** B. 82<sup>nd</sup>

X C. 37<sup>th</sup>

✓ D. 61<sup>st</sup>

Question ID: 630680353919 Status: Not Answered Chosen Option : --





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Q.5 Which of the following states receives average rainfall less than 100 cm?
Ans X A. West Bengal
       B. Rajasthan
      X C. Tripura
      X D. Odisha
                                                                                          Question ID : 630680511173
                                                                                               Status: Not Answered
                                                                                       Chosen Option : --
Q.6 Which of the following statements is INCORRECT about pseudocode conventions?

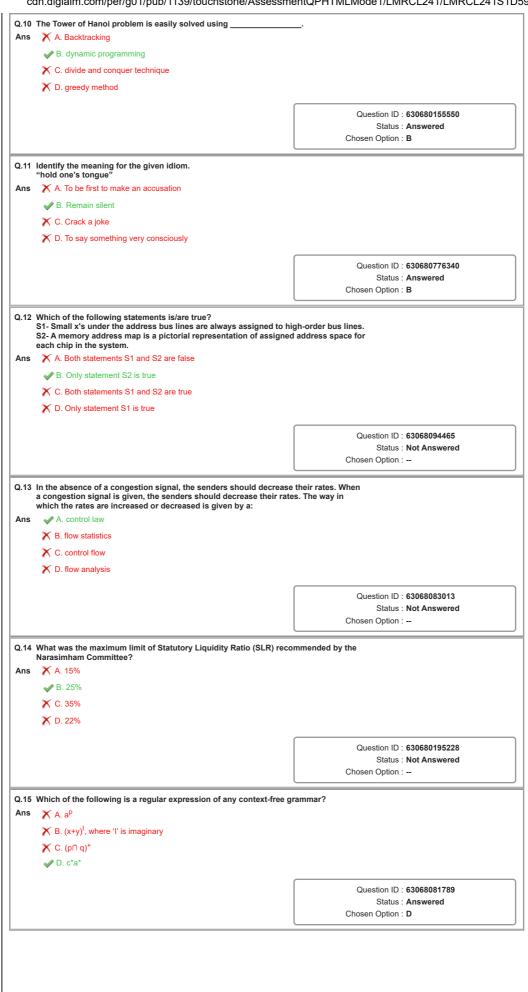
✓ A. Pseudocode is typically concerned with the issues of software engineering.

      X B. Indentation indicates block structure.
      X C. The symbol '//' indicates that the remainder of the line is a comment.
      X D. Issues of data abstraction, modularity and error handling are often ignored in order to
     convey the essence of the algorithm more concisely.
                                                                                          Question ID: 630680120449
                                                                                               Status: Not Answered
                                                                                       Chosen Option : --
Q.7 Fill in the blank to complete the following sentence by using the correct adjective.

The room was extremely messy. _____ cushions lay on the floor.
Ans X A. enlarged
      X B. largely
      X C. enlarge
       D. large
                                                                                          Question ID: 630680776330
                                                                                               Status: Not Answered
                                                                                       Chosen Option : --
       What is the output of the following code?
       int main()
       int a=65;
       switch(a+=1)
       case 'B':
       a--;
       case 1:
       a+=4;
       printf("%d",a);
       return 0;

✓ A. 69

      X B. 66
      X C. 65
      X D. 64
                                                                                          Question ID: 63068066223
                                                                                               Status: Answered
                                                                                       Chosen Option : A
Q.9 If two computers that use different connection-oriented transport protocols, which device can be used to connect them?
Ans 🗳 A. Gateway
      X B. Switch
      X C. Bridge
       X D. Hub
                                                                                          Question ID: 63068099797
                                                                                               Status: Answered
                                                                                       Chosen Option : A
```



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Q.16 Which of the following data structures uses FIFO method of accessing elements?
Ans X A. Tree
        X C. Stack
       X D. Linked list
                                                                                              Question ID: 63068076319
                                                                                                   Status: Answered
                                                                                           Chosen Option : B
Q.17 The Karbi-Anglong Plateau is located in which part of India?
Ans X A. Eastern Rajasthan
       X B. Coastal Odisha
        C. North-eastern states
       X D. Western Ghats
                                                                                               Question ID: 630680511179
                                                                                                   Status: Not Answered
                                                                                           Chosen Option : --
Q.18 A temple from which of the following states has introduced a mechanical elephant to perform the temple rituals?
Ans X A. Uttar Pradesh
       X B. Karnataka
        C. Kerala
       X D. Gujarat
                                                                                              Question ID: 630680302108
                                                                                                   Status: Not Answered
                                                                                           Chosen Option : --
Q.19 Three of the following four pairs of letter-clusters are alike in some manner and hence
      form a group. Which pair does not belong to that group?
Ans X A. RV – LP
       X B. WA - QU
       X C. LP - FJ

✓ D. CG – XD
                                                                                              Question ID: 630680344160
                                                                                                   Status : Answered
                                                                                           Chosen Option : D
Q.20 In a complete graph on 4 vertices, the edge weights are as follows:
     In a complete graph on 4 vertices, the edge we Edge(1, 2) cost 5
Edge(1, 3) cost 10
Edge(1, 4) cost 2
Edge(2, 3) cost 20
Edge(2, 4) cost 15
Edge(3, 4) cost 6
The total weight of minimum spanning tree is:
Ans X A. 36
       X B. 31
       X C. 17
        ✓ D. 13
                                                                                              Question ID: 630680203947
                                                                                                   Status: Answered
                                                                                           Chosen Option : D
       Consider the grammar G_1 and G_2 given by the following rules.
                S→E aSb SS and S→E aSbS SS
       Confirm the correct answer from the following options.
       \checkmark A. L(G_1) \subseteq L(G_2)
       \nearrow B. L(G_1) = L(G_2)

ightharpoonup C. L(G_1) \supseteq L(G_2)
       \times D. G_1 is suffix of G_2
                                                                                              Question ID: 630680196332
                                                                                                   Status: Answered
                                                                                           Chosen Option : A
```

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Q.22 In order to perform network management tasks, SNMP uses the SMI protocol. SMI uses BER to encode data in triplet format: tag, length and value. What will be the
      equivalent encoded data for the OCTET STRING 'Ab'?
      X A. 00000010 00000010 01000001 01100010
        X C. 00001000 00000010 01100001 01000010
        X D. 00010000 00000010 01000001 01100010
                                                                                                     Question ID: 63068099831
                                                                                                           Status: Not Answered
                                                                                                  Chosen Option : --
Q.23 If any string is pumped by pumping lemma, then it:
Ans X A. None of the given options
        X B. is definitely regular
        X C. is context free
         D. may or may not be regular
                                                                                                     Question ID: 630680196323
                                                                                                          Status: Answered
                                                                                                  Chosen Option: D
Q.24 Which of the following is/are true about the third normal form?
      a.Dependency preserving decomposition
      b.A lossless join c.Every non-prime attribute of R is non-transitively dependent on every key of R.
      d.Each of its functional dependencies X \to A, where X is a superkey.
     X A. b, c and d
        X B. a, b and c
        C. a, b, c and d
        X D. a. c and d
                                                                                                     Question ID: 630680121130
                                                                                                           Status : Answered
                                                                                                  Chosen Option : B
Q.25 Select the set in which the numbers are related in the same way as are the numbers of
      the given sets
      (NOTE: Operations should be performed on the whole numbers, without breaking
      down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding /deleting /multiplying to 13 can be performed. Breaking down 13 into 1 and 3
      and then performing mathematical operations on 1 and 3 is not allowed.)
      5 - 20 - 30 - 50
Ans X A. 4 – 16 – 26 – 36
        X B. 12 - 48 - 58 - 88
        ✓ C. 9 – 36 – 46 – 66
        X D. 10 - 40 - 60 - 80
                                                                                                     Question ID: 630680467210
                                                                                                          Status : Not Attempted and Marked For Review
                                                                                                  Chosen Option : --
Q.26 A solid hemisphere metal is melted to recast in the shape of a right circular cylinder of
      diameter 18 cm and height 162 cm. The radius of the hemisphere is:
Ans
     X A. 18 cm
        X B. 22 cm

✓ C. 27 cm

        X D. 25 cm
                                                                                                     Question ID: 630680375020
                                                                                                           Status: Not Answered
                                                                                                  Chosen Option: --
Q.27 There are three taps A, B and C of diameters 3 cm, 4 cm and 5 cm, respectively. The ratio of water flowing through them is equal to the ratio of squares of their diameters. The biggest tap C alone can fill an empty tank in 80 minutes. If all the taps are opened
      simultaneously, then find the time (in minutes) required for the tank to be filled.
        ✓ A. 40
        X B. 60
        X C. 50
        X D. 100
                                                                                                     Question ID: 630680745730
                                                                                                           Status: Answered
                                                                                                  Chosen Option : A
```

