Osmania University Common Entrance Test

Notations :

1.Options shown in green color and with ✔ icon are correct.

2.Options shown in red color and with ✖ icon are incorrect.

Question Paper Name :	M Sc Computer Science 5th Dec 2020 Shift 2
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Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console? :	Yes

M.Sc. Computer Science

Group Number :	1
Group Id :	97108362
Group Maximum Duration :	0
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Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	100
Is this Group for Examiner? :	No

PART A

Section Id :	97108391
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	100
Number of Questions to be attempted :	100
Section Marks :	100
Mark As Answered Required? :	Yes
Sub-Section Number :	1
Sub-Section Id :	971083105
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 9710837107 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

fseek() should be preferred over rewind() mainly because

Options :

97108328401. ✖ rewind() doesn't work for empty files

97108328402. ✖ rewind() may fail for large files

97108328403. ✔ In rewind, there is no way to check if the operations completed successfully

97108328404. ✖ fseek is faster than rewind

Question Number : 2 Question Id : 9710837108 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is a correct format for declaration of function?

Options :

97108328405. ✔ return-type function-name(argument type);

97108328406. ✖ return-type function-name(argument type){}

97108328407. ✖ return-type (argument type)function-name;

97108328408. ✖ function-name(argument type);

Question Number : 3 Question Id : 9710837109 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What are the elements present in the array of the following C code?
int array[5] ;

Options :

97108328409. ✖ 5, 5, 5, 5, 5

97108328410. ✖ 5, 0, 0, 0, 0

97108328411. ✖ 5, (garbage), (garbage), (garbage), (garbage)

97108328412. ✔ (garbage), (garbage), (garbage), (garbage), (garbage)

Question Number : 4 Question Id : 9710837110 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which operator has the least precedence?

Options :

97108328413. ✖ &

97108328414. ✖ |

97108328415. ✖ !

97108328416. ✔ ,

Question Number : 5 Question Id : 9710837111 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following can never be sent by call-by-value?

Options :

97108328417. ✖ Variable

97108328418. ✔ Array

97108328419. ✖ Structures

97108328420. ✖ Both Array and Structures

Question Number : 6 Question Id : 9710837112 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

_____ translates and executes the program line by line.

Options :

97108328421. ✖ Compiler

97108328422. ✖ Linker

97108328423. ✔ Interpreter

97108328424. ✖ Loader

Question Number : 7 Question Id : 9710837113 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not a valid variable name declaration?

Options :

97108328425. ✖ int _a3;

97108328426. ✖ int a_3;

97108328427. ✔ int 3_a;

97108328428. ✖ int _3a;

Question Number : 8 Question Id : 9710837114 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following cannot be a structure member?

Options :

97108328429. ✖ Another structure

97108328430. ✔ Function

97108328431. ✖ Array

97108328432. ✖ pointers

Question Number : 9 Question Id : 9710837115 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
    int a = 1, b = 1, c;
    c = a++ + b;
  printf("%d, %d", a, b);
}
```

Options :

97108328433. ✖ a = 1, b = 1

97108328434. ✔ a = 2, b = 1

97108328435. ✖ a = 1, b = 2

97108328436. ✖ a = 2, b = 2

Question Number : 10 Question Id : 9710837116 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following are themselves a collection of different data types?

Options :

97108328437. ✖ string

97108328438. ✔ structures

97108328439. ✖ char

97108328440. ✖ array

Question Number : 11 Question Id : 9710837117 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which for loop has range of similar indexes of ‘i’ used in for (i = 0;i < n; i++)?

Options :

97108328441. ✖ for (i = n; i>0; i--)

97108328442. ✖ for (i = n; i>= 0; i--)

97108328443. ✖ for (i = n-1; i>0; i--)

97108328444. ✔ for (i = n-1; i>-1; i--)

Question Number : 12 Question Id : 9710837118 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the output of the following program

```
#include <stdio.h>
int main()
{
char* p = "mayhem";
char c;
int i;
for (i = 0; i < 3; i++)
{
c = *p++;
}
printf("%c", c);
return 0;
    }
```

Options :

97108328445. ✔ y

97108328446. ✖ h

97108328447. ✖ e

97108328448. ✖ a

Question Number : 13 Question Id : 9710837119 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is an invalid if-else statement?

Options :

97108328449. ✔ if (if (a == 1)){}

97108328450. ✖ if ((int) a){}

97108328451. ✖ if (a){}

97108328452. ✖ if ((char) a){}

Question Number : 14 Question Id : 9710837120 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the maximum number of arguments that can be passed in a single function?

Options :

97108328453. ✖ 127

97108328454. ✔ 253

97108328455. ✖ 361

97108328456. ✖ No limits in number of arguments

Question Number : 15 Question Id : 9710837121 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What will be the output of the following code?

```
#include <stdio.h>
int x = 0;
void main()
   {
int *ptr = &x;
printf("%p\n", ptr);
x++;
printf("%p\n ", ptr);
   }
```

Options :

97108328457. ✔ Same address

97108328458. ✖ Different address

97108328459. ✖ Compile time error

97108328460. ✖ Varies

Question Number : 16 Question Id : 9710837122 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Which other keywords are also used to declare the class other than “class”?

Options :

97108328461. ✖ struct

97108328462. ✖ union

97108328463. ✖ object

97108328464. ✔ both struct& union

Question Number : 17 Question Id : 9710837123 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Disadvantage of using array representation for binary trees is?

Options :

97108328465. ✖ difficulty in knowing children nodes of a node

97108328466. ✖ difficult in finding the parent of a node

97108328467. ✔

have to know the maximum number of nodes possible before creation of trees

97108328468. ✖ difficult to implement

Question Number : 18 Question Id : 9710837124 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What would be the asymptotic time complexity to add an element in the linked list at the end ?

Options :

97108328469. ✖ O(1)

97108328470. ✔ O(n)

97108328471. ✖ $O(n^2)$

97108328472. ✖ O(2n)

Question Number : 19 Question Id : 9710837125 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not the member of class?

Options :

97108328473. ✖ Static function

97108328474. ✔ Friend function

97108328475. ✖ Const function

97108328476. ✖ Virtual function

Question Number : 20 Question Id : 9710837126 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the output of this C++ program ?

```
#include <iostream>
using namespace std;

int main()
{
    try
    {
      throw 10;
    }
    catch (...)
    {
        cout << "default exceptionn";
    }
    catch (int param)
    {
        cout << "int exceptionn";
    }

    return 0;
}
```

Options :

97108328477. ✖ default exception

97108328478. ✖ int exception

97108328479. ✖ 0

97108328480. ✔ Compiler Error

Question Number : 21 Question Id : 9710837127 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

When will the cin can start processing of input?

Options :

97108328481. ✔ After pressing return key

97108328482. ✖ By pressing blank space

97108328483. ✖ After pressing return key & By pressing blank space

97108328484. ✖ None

Question Number : 22 Question Id : 9710837128 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Output of following C++ program?

```
#include<iostream>
using namespace std;
```

```
class Test
{
private:
    static int count;
public:
    Test& fun();
};

int Test::count = 0;

Test& Test::fun()
{
    Test::count++;
    cout << Test::count << " ";
    return *this;
}

int main()
{
    Test t;
    t.fun().fun().fun().fun();
    return 0;
}
```

Options :

Compiler Error

97108328485. ✖

97108328486. ✖ 4 4 4 4

97108328487. ✖ 1 1 1 1

97108328488. ✔ 1 2 3 4

Question Number : 23 Question Id : 9710837129 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which data structure is used for implementing recursion?

Options :

97108328489. ✖ Queue

97108328490. ✔ Stack

97108328491. ✖ Array

97108328492. ✖ List

Question Number : 24 Question Id : 9710837130 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

When a language has the capability to produce new data type mean, it can be called as

Options :

97108328493. ✖ overloaded

97108328494. ✔ extensible

97108328495. ✖ encapsulated

97108328496. ✖ reprehensible

Question Number : 25 Question Id : 9710837131 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is true?

Options :

97108328497. ✖ Static methods cannot be overloaded.

97108328498. ✖ Static data members can only be accessed by static methods

97108328499. ✖ Non-static data members can be accessed by static methods

97108328500. ✔ Static methods can only access static members (data and methods)

Question Number : 26 Question Id : 9710837132 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

From where does the template class derived?

Options :

97108328501. ✖ regular non-templated C++ class

97108328502. ✖ templated class

97108328503. ✔ regular non-templated C++ class or templated class

97108328504. ✖ from derived class

Question Number : 27 Question Id : 9710837133 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

Select the right option.

Given the variables p, q are of char type and r, s, t are of int type

1. t = (r * s) / (r + s);

2. t = (p * q) / (r + s);

Options :

97108328505. ✖ 1 is true but 2 is false

97108328506. ✖ 1 is false and 2 is true

97108328507. ✔ both 1 and 2 are true

97108328508. ✖ both 1 and 2 are false

Question Number : 28 Question Id : 9710837134 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which inheritance type is used in the class given below?

```
class A : public X, public Y
{}
```

Options :

97108328509. ✖ Multilevel inheritance

97108328510. ✔ Multiple inheritance

97108328511. ✖ Hybrid inheritance

97108328512. ✖ Hierarchical Inheritance

Question Number : 29 Question Id : 9710837135 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

A member function can always access the data in _____

Options :

97108328513. ✖ the class of which it is member

97108328514. ✔ the object of which it is a member

97108328515. ✖ the public part of its class

97108328516. ✖ the private part of its class

Question Number : 30 Question Id : 9710837136 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

What is the output of following program?

```
#include<iostream>
#define square(x) (x * x)

int main()
{
    int x, y = 1;
    x = square(y + 1);
    printf("%d\n", x);
    return 0;
}
```

Options :

97108328517. ✖ Error

97108328518. ✖ 4

97108328519. ✔ 3

97108328520. ✖ Garbage value

Question Number : 31 Question Id : 9710837137 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the output of this C++ program?

```
#include<iostream>
using namespace std;
class base {
int arr[10];
};
class b1: public base { };
class b2: public base { };
class derived: public b1, public b2 {};
int main(void)
{
cout << sizeof(derived);
return 0;
}
```

Options :

97108328521. ✖ 40

97108328522. ✖ 4

97108328523. ✔ 80

97108328524. ✖ 0

Question Number : 32 Question Id : 9710837138 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

How can we make a C++ class such that objects of it can only be created using new operator? If user tries to create an object directly, the program produces compiler error.

Options :

97108328525. ✖ Not possible

97108328526. ✔ By making destructor private

97108328527. ✖ By making constructor private

97108328528. ✖ By making both constructor and destructor private

Question Number : 33 Question Id : 9710837139 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Inline functions are useful when

Options :

97108328529. ✖ Function is large with many nested loops

97108328530. ✖ Function has many static variables

97108328531. ✔ Function is small and we want to avoid function call overhead

97108328532. ✖ None of the above

Question Number : 34 Question Id : 9710837140 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The best data structure to check whether an arithmetic expression has balanced parenthesis is a

Options :

97108328533. ✖ Queue

97108328534. ✔ Stack

97108328535. ✖ Tree

97108328536. ✖ List

Question Number : 35 Question Id : 9710837141 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Out of the following operators (^, *, +, &, $), the one having highest priority is _____

Options :

97108328537. ✖ +

97108328538. ✖ $

97108328539. ✔ ^

97108328540. ✖ &

Question Number : 36 Question Id : 9710837142 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not an inherent application of stack?

Options :

97108328541. ✖ Recursion implementation

97108328542. ✖ Postfix expression evaluation

97108328543. ✔ Job scheduling

97108328544. ✖ Reversing a string

Question Number : 37 Question Id : 9710837143 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The number of different binary trees with 6 nodes is

Options :

97108328545. ✖ 6

97108328546. ✖ 42

97108328547. ✔ 132

97108328548. ✖ 256

Question Number : 38 Question Id : 9710837144 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which traversal of tree resembles the breadth first search of the graph?

Options :

97108328549. ✖ Preorder

97108328550. ✖ Inorder

97108328551. ✖ Postorder

97108328552. ✔ Level order

Question Number : 39 Question Id : 9710837145 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following traversal outputs the data in sorted order in a BST?

Options :

97108328553. ✖ Preorder

97108328554. ✔ Inorder

97108328555. ✖ Postorder

97108328556. ✖ Level order

Question Number : 40 Question Id : 9710837146 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The following postfix expression with single digit operands is evaluated using a stack:

8 2 3 ^ / 2 3 * + 5 1 * -

Here ^ is the exponentiation operator. The top two elements of the stack after the first * is evaluated are:

Options :

97108328557. ✔ 6, 1

97108328558. ✖ 5 ,7

97108328559. ✖ 3, 2

97108328560. ✖ 1, 5

Question Number : 41 Question Id : 9710837147 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following data structure is useful in traversing a given graph by breadth first search?

Options :

97108328561. ✖ Stack

97108328562. ✖ List

97108328563. ✔ Queue

97108328564. ✖ Tree

Question Number : 42 Question Id : 9710837148 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A hash function h defined h(key)=key mod 7, with linear probing, is used to insert the keys 44, 45, 79, 55, 91, 18, 63 into a table indexed from 0 to 6. What will be the location of key 18?

Options :

97108328565. ✖ 3

97108328566. ✖ 4

97108328567. ✔ 5

97108328568. ✖ 6

Question Number : 43 Question Id : 9710837149 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following algorithm design technique is used in merge sort?

Options :

97108328569. ✖ Greedy method

97108328570. ✖ Backtraking

97108328571. ✔ Divide and Conquer

97108328572. ✖ Dynamic programming

Question Number : 44 Question Id : 9710837150 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The in-order and pre-order traversal of a binary tree are d b e a f c g and a b d e c f g respectively. The post order traversal of a binary tree is

Options :

97108328573. ✖ e d b g f c a

97108328574. ✖ e d b f g c a

97108328575. ✔ d e b f g c a

97108328576. ✖ d e f g b c a

Question Number : 45 Question Id : 9710837151 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In the worst case, the number of comparisons needed to search a singly linked list of length n for a given element is

Options :

97108328577. ✖ Log 2n

97108328578. ✖ n/2

97108328579. ✖ Log 2n-1

97108328580. ✔ n

Question Number : 46 Question Id : 9710837152 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not a stable sorting algorithm?

Options :

97108328581. ✖ Insertion sort

97108328582. ✔ Selection sort

97108328583. ✖ Bubble sort

97108328584. ✖ Merge sort

Question Number : 47 Question Id : 9710837153 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a max-heap, element with the greatest key is always in the which node?

Options :

97108328585. ✖ Leaf node

97108328586. ✖ First node of left sub tree

97108328587. ✔ root node

97108328588. ✖ First node of right sub tree

Question Number : 48 Question Id : 9710837154 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

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

Options :

97108328589. ✔ O(1)

97108328590. ✖ O(n)

97108328591. ✖ O(logn)

97108328592. ✖ O(nlogn)

Question Number : 49 Question Id : 9710837155 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If the tree is not a complete binary tree then what changes can be made for easy access of children of a node in the array ?

Options :

97108328593. ✔ every node stores data saying which of its children exist in the array

97108328594. ✖ no need of any changes continue with 2w and 2w+1, if node is at i

97108328595. ✖ keep a seperate table telling children of a node

97108328596. ✖ use another array parallel to the array with tree

Question Number : 50 Question Id : 9710837156 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following sorting algorithms can be used to sort a random linked list with minimum time complexity?

Options :

97108328597. ✖ Insertion sort

97108328598. ✖ Quick sort

97108328599. ✖ Heap sort

97108328600. ✔ Merge sort

Question Number : 51 Question Id : 9710837157 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which symbol denote derived attributes in ER Model?

Options :

97108328601. ✖ Double ellipse

97108328602. ✔ Dashed ellipse

97108328603. ✖ Squared ellipse

97108328604. ✖ Ellipse with attribute name underlined

Question Number : 52 Question Id : 9710837158 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The one guideline to be followed while designing the database is

Options :

A database design may be ambiguous

97108328605. ✖

Unrelated data should be at the same table so that updating the data will be eas

97108328606. ✖

It should avoid/reduce the redundancy

97108328607. ✔

97108328608. ✖ An entity should not have attributes

Question Number : 53 Question Id : 9710837159 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

To eliminate duplicate rows ..... is used

Options :

97108328609. ✖ NODUPLICATE

97108328610. ✖ ELIMINATE

97108328611. ✔ DISTINCT

97108328612. ✖ CONST

Question Number : 54 Question Id : 9710837160 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The way a particular application views the data from the database that the application uses is a

Options :

97108328613. ✖ module

97108328614. ✖ relational model

97108328615. ✖ schema

97108328616. ✔ subschema

Question Number : 55 Question Id : 9710837161 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Key to represent relationship between tables is called

Options :

97108328617. ✖ primary key

97108328618. ✖ secondary key

97108328619. ✔ foreign key

97108328620. ✖ extendible key

Question Number : 56 Question Id : 9710837162 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following statements is false?

Options :

97108328621. ✖ The data dictionary is normally maintained by the database administrator

97108328622. ✔ Data elements in the database can be modified by changing the data dictionary

97108328623. ✖ The data dictionary contains the name and description of each data element

97108328624. ✖ A data dictionary is a tool used exclusively by the database administrator

Question Number : 57 Question Id : 9710837163 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Centralizing the integrity checking directly under the DBMS ..... duplication and ensures the consistency and validity of the database.

Options :

97108328625. ✖ Increases

97108328626. ✖ Skips

97108328627. ✖ Does not reduce

97108328628. ✔ Reduces

Question Number : 58 Question Id : 9710837164 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is TRUE?

Options :

97108328629. ✖ Every relation in 3NF is also in BCNF

97108328630. ✖ A relation R is in 3NF if every non-prime attribute of R is fully functionally dependent on every key of R

97108328631. ✔ Every relation in BCNF is also in 3NF

97108328632. ✖ No relation can be in both BCNF and 3NF

Question Number : 59 Question Id : 9710837165 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

..... is a preferred method for enforcing data integrity

Options :

97108328633. ✔ Constraints

97108328634. ✖ Stored procedure

97108328635. ✖ Triggers

97108328636. ✖ Cursors

Question Number : 60 Question Id : 9710837166 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following scenarios may lead to an irrecoverable error in a database system ?

Options :

97108328637. ✖ A transaction writes a data item after it is read by an uncommitted transaction

97108328638. ✖ A transaction reads a data item after it is read by an uncommitted transaction

97108328639. ✖ A transaction reads a data item after it is written by a committed transaction

A transaction reads a data item after it is written by an uncommitted transaction

97108328640. ✔

Question Number : 61 Question Id : 9710837167 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A top-to-bottom relationship among the items in a database is established by a

Options :

97108328641. ✔ Hierarchical schema

97108328642. ✖ Network schema

97108328643. ✖ Relational Schema

97108328644. ✖ star schema

Question Number : 62 Question Id : 9710837168 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The collection of information stored in a database at a particular moment is called as .....

Options :

97108328645. ✖ schema

97108328646. ✔ instance of the database

97108328647. ✖ data domain

97108328648. ✖ Independence

Question Number : 63 Question Id : 9710837169 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

In a schema with attributes A, B, C, D and E following set of functional dependencies are given

$A \rightarrow B$ $A \rightarrow C$ $CD \rightarrow E$ $B \rightarrow D$ $E \rightarrow A$

Which of the following functional dependencies is NOT implied by the above set?

Options :

97108328649. ✖ $CD \rightarrow AC$

97108328650. ✔ $BD \rightarrow CD$

97108328651. ✖ $BC \rightarrow CD$

97108328652. ✖ $AC \rightarrow BC$

Question Number : 64 Question Id : 9710837170 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

In RDBMS, different classes of relations are created using _____ technique to prevent modification anomalies.

Options :

97108328653. ✖ Functional dependencies

97108328654. ✖ Data integrity

97108328655. ✖ Referential integrity

97108328656. ✔ Normal forms

Question Number : 65 Question Id : 9710837171 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

In RDBMS, the constraint that no key attribute may be NULL is referred to as:

Options :

97108328657. ✔ Referential integrity

97108328658. ✖ Multi-valued dependency

97108328659. ✔ Entity integrity

97108328660. ✖ Functional dependency

Note: For this question, ambiguity is found in question/answer. Candidate will get full marks for this question if any of the correct options are chosen.

Question Number : 66 Question Id : 9710837172 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

An aggregation association is drawn using which symbol?

Options :

97108328661. ✖ A line which loops back on to the same table

97108328662. ✔ A small open diamond at the end of a line connecting two tables

97108328663. ✖ A small closed diamond at the end of a line connecting two tables

97108328664. ✖ A small closed triangle at the end of a line connecting two tables

Question Number : 67 Question Id : 9710837173 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A ..... Does not have a distinguishing attribute if its own and most are dependent entities, which are part of some another entity.

Options :

97108328665. ✔ Weak entity

97108328666. ✖ Strong entity

97108328667. ✖ consistent entity

97108328668. ✖ Dependent entity

Question Number : 68 Question Id : 9710837174 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The number of tuples in a relation is called its ..... While the number of attributes in a relation is called it's .....

Options :

97108328669. ✖ Degree, Cardinality

97108328670. ✔ Cardinality, Degree

97108328671. ✖ Rows, Columns

97108328672. ✖ Columns, Rows

Question Number : 69 Question Id : 9710837175 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The statement that is executed automatically by the system as a side effect of the modification of the database is

Options :

97108328673. ✖ backup

97108328674. ✖ assertion

97108328675. ✖ recovery

97108328676. ✔ trigger

Question Number : 70 Question Id : 9710837176 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Given relations r(w, x) and s(y, z), the result of " select distinct w,x from r,s "is guaranteed to be same as r, provided

Options :

97108328677. ✔ r has no duplicates and s is non-empty

97108328678. ✖ r and s have no duplicates

97108328679. ✖ s has no duplicates and r is non-empty

97108328680. ✖ r and s have the same number of tuples

Question Number : 71 Question Id : 9710837177 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A sub class can call a constructor defined by its super class by using _____ keyword.

Options :

97108328681. ✖ extend

97108328682. ✖ final

97108328683. ✔ super

97108328684. ✖ this

Question Number : 72 Question Id : 9710837178 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of these is a super class of wrappers Double and Float?

Options :

97108328685. ✖ Long

97108328686. ✖ Digits

97108328687. ✖ Float

97108328688. ✔ Number

Question Number : 73 Question Id : 9710837179 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Evaluate the following expression
(true&& false) || true || false

Options :

97108328689. ✖ 0

97108328690. ✔ 1

97108328691. ✖ false

97108328692. ✖ 01

Question Number : 74 Question Id : 9710837180 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is used to call stored procedure?

Options :

97108328693. ✖ Statement

97108328694. ✖ Prepared Statement

97108328695. ✔ Callable Statement

97108328696. ✖ Called Statement

Question Number : 75 Question Id : 9710837181 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of these modifiers can be used for a variable so that it can be accessed from any thread or parts of a program?

Options :

97108328697. ✖ transient

97108328698. ✔ volatile

97108328699. ✖ global

97108328700. ✖ No modifier is needed

Question Number : 76 Question Id : 9710837182 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No

Correct Marks : 1 Wrong Marks : 0

Event class is defined in which of these libraries?

Options :

97108328701. ✖ java.io

97108328702. ✖ java.lang

97108328703. ✖ java.net

97108328704. ✔ java.util

Question Number : 77 Question Id : 9710837183 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No
Correct Marks : 1 Wrong Marks : 0

What does not prevent JVM from terminating?

Options :

97108328705. ✖ Process

97108328706. ✔ Daemon Thread

97108328707. ✖ User Thread

97108328708. ✖ JVM Thread

Question Number : 78 Question Id : 9710837184 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What will s2 contain after following lines of code?

```
StringBuffer s1 ="one";
StringBuffer s2 =s1.append("two")
```

Options :

97108328709. ✖ one

97108328710. ✖ two

97108328711. ✔ onetwo

97108328712. ✖ twoone

Question Number : 79 Question Id : 9710837185 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of these operators can be used to get run time information about an object?

Options :

97108328713. ✖ getInfo

97108328714. ✖ Info

97108328715. ✔ instanceof

97108328716. ✖ getinfoof

Question Number : 80 Question Id : 9710837186 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the output of the following java code?

```
Public class EcetString1
{
Public static void main(String args[])
{
String str = “420”;
str+ = 42;
System.out.print(str);
}
}
```

Options :

97108328717. ✖ 42

420

97108328718. ✖

42042

97108328719. ✔

462

97108328720. ✖

Question Number : 81 Question Id : 9710837187 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following event is generated when scroll bar is manipulated ?

Options :

97108328721. ✖ Action Event

97108328722. ✔ Adjustemnt Event

97108328723. ✖ Container Event

97108328724. ✖ Item Event

Question Number : 82 Question Id : 9710837188 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What is the output of this program?

```
classstring_demo
   {
public static void main(String args[])
      {
         String obj = "I" + "like" + "Java";
System.out.println(obj);
      }
  }
```

Options :

97108328725. ✖ I

97108328726. ✖ like

97108328727. ✖ Java

97108328728. ✔ IlikeJava

Question Number : 83 Question Id : 9710837189 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

What will be the output of the program?

```
try{
int  x=0;
int y=5/x;
}
catch(Exception e)
{
System.out.println(“Exception”);
}
catch(ArithmaticExceptionae)
{
System.out.println(“ArithmaticException”);
}
System.out.println(“finished”);
```

Options :

97108328729. ✖ finished

97108328730. ✖ Exception

97108328731. ✔ Compilation fails

97108328732. ✖ Arithmatic Exception

Question Number : 84 Question Id : 9710837190 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of these method of String class can be used to test to strings for equality?

Options :

97108328733. ✖ isequal()

97108328734. ✖ isequals()

97108328735. ✖ equal()

97108328736. ✔ equals()

Question Number : 85 Question Id : 9710837191 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following is not the method of Thread class?

Options :

97108328737. ✖ Start

97108328738. ✔ stop

97108328739. ✖ run

97108328740. ✖ sleep

Question Number : 86 Question Id : 9710837192 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which feature of Go-Back-N ARQ mechanism possesses an ability to assign the sliding window in the forward direction?

Options :

97108328741. ✖ Control Variables

97108328742. ✔ Sender Sliding Window

97108328743. ✖ Receiver Sliding Window

97108328744. ✖ Resending of frames

Question Number : 87 Question Id : 9710837193 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The resources needed for communication between end systems are reserved for the duration of the session between end systems in _____

Options :

97108328745. ✖ Packet switching

97108328746. ✔ Circuit switching

97108328747. ✖ Line switching

97108328748. ✖ Frequency switching

Question Number : 88 Question Id : 9710837194 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

For Carrier Sense Multiple Access/Collision Detection (CSMA/CD), we need a restriction on the

Options :

97108328749. ✖ Collision Size

97108328750. ✖ Signal Size

97108328751. ✔ Frame Size

97108328752. ✖ Station Size

Question Number : 89 Question Id : 9710837195 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A _____ can check the MAC addresses contained in the frame.

Options :

97108328753. ✖ passive hub

97108328754. ✖ repeater

97108328755. ✔ bridge

97108328756. ✖ router

Question Number : 90 Question Id : 9710837196 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

The Routing Information Protocol(RIP) is an intra domain routing based on ……..routing.

Options :

97108328757. ✔ distance vector

97108328758. ✖ link state

97108328759. ✖ path vector

97108328760. ✖ distance code

Question Number : 91 Question Id : 9710837197 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which phase/s of POP3 allow/s an user agent to retrieve the messages as well as to mark the messages for deletion purpose?

Options :

97108328761. ✖ Authorization Phase

97108328762. ✔ Transaction Phase

97108328763. ✖ Update Phase

97108328764. ✖ loaded phase

Question Number : 92 Question Id : 9710837198 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is a version of UDP with congestion control?

Options :

97108328765. ✔ datagram congestion control protocol

97108328766. ✖ stream control transmission protocol

97108328767. ✖ structured stream transport

97108328768. ✖ Parallel structured stream transport

Question Number : 93 Question Id : 9710837199 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

If there are N routers from source to destination, a total end to end delay in sending packet P(L-> number of bits in the packet R-> transmission rate)

Options :

97108328769. ✖ N

97108328770. ✔ (N*L)/R

97108328771. ✖ (2N*L)/R

97108328772. ✖ L/R

Question Number : 94 Question Id : 9710837200 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

A multi-station access unit is most often used in _____ LAN

Options :

97108328773. ✖ an Ethernet

97108328774. ✔ a Token Ring

97108328775. ✖ a FDDI

97108328776. ✖ servelet

Question Number : 95 Question Id : 9710837201 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

To address the issues arises when multiple resource records for the same resource record type exist, RFC 1794 describes a mechanism named …….. to share and distribute loads for network resources.

Options :

97108328777. ✖ Positive caching

97108328778. ✖ Time To Live

97108328779. ✖ Negative Caching

97108328780. ✔ Round Robin Load Balancing

Question Number : 96 Question Id : 9710837202 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Multiplexing technique that shifts each signal to a different carrier frequency

Options :

97108328781. ✔ FDM

97108328782. ✖ TDM

97108328783. ✖ Both FDM & TDM

97108328784. ✖ serial FDM

Question Number : 97 Question Id : 9710837203 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following is a transport layer protocol?

Options :

97108328785. ✔ stream control transmission protocol

97108328786. ✖ internet control message protocol

97108328787. ✖ neighbor discovery protocol

97108328788. ✖ dynamic host configuration protocol

Question Number : 98 Question Id : 9710837204 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which of the following summation operation is performed on the bits to check an error – detecting code?

Options :

97108328789. ✖ Attenuation

97108328790. ✖ codec

97108328791. ✔ checksum

97108328792. ✖ code-decoder

Question Number : 99 Question Id : 9710837205 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

Which one of the following extends a private network across public networks?

Options :

97108328793. ✖ local area network

97108328794. ✔ virtual private network

97108328795. ✖ enterprise private network

97108328796. ✖ storage area network

Question Number : 100 Question Id : 9710837206 Question Type : MCQ Option Shuffling : Yes Is Question Mandatory : No Correct Marks : 1 Wrong Marks : 0

To guarantee detection of up to s errors in all cases, minimum hamming distance in a block code must be

Options :

97108328797. ✖ s

97108328798. ✔ s+1

97108328799. ✖ s-1

97108328800. ✖ 0