Entrance Exam

2024



QUESTION PAPER

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M.Sc. COMPUTER SCIENCE

1. C Language was developed at……

   (A) AT & T's Bell Laboratories of USA in 1970
   (B) AT & T's Bell Laboratories of USA in 1972
   (C) Cambridge University in 1972
   (D) Sun Microsystems in 1973

2. Which is correct with respect to size of the data types ?

   (A) `char > int > float`
   (B) `char < int < float`
   (C) `int > char > float`
   (D) `int < char < float`

3. What is the output of this C code ?

```
#include<studio.h>
void main()
{
int k = 4;
float k = 4;
printf("%d",k)
}
```

   (A) Compile time error
   (B) 4
   (C) 4.444444
   (D) 4.4

4. An expression contains relational, assignment and arithmetic operators. If parenthesis are not specified, the order of evaluation of the operators would be

   (A) assignment, arithmetic, relational
   (B) assignment, relational, arithmetic
   (C) arithmetic, relational, assignment
   (D) arithmetic, assignment, relational

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5. What is the output of this C code ?

```
#include<studio.h>
int main()
{
int i = 0;
int x = i++, y = ++i;
printf("%d, %d\n",x,y);
return 0;

}
```

(A) 0,2
(B) 0,1
(C) 1,2
(D) Undefined

6. What is the output of this C code ?

```
#include<studio.h>
void main()
{
int x = 4, y , z;
y = --x;
z = x--;
printf("%d%d%d",x,y,x);

}
```

(A) 3 2 3
(B) 2 3 3
(C) 3 2 2
(D) 2 3 4

7. Right shift operator >> is equivalent to

(A) Multiplying by 2
(B) Division by 2
(C) Adding by 2
(D) Subtracting by 2

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8. What will be the output of the following C code?

```
#include <stdio.h>
void main()
{
   int i = 0;
   while (i< 10)
    {
      i++;
      printf("hi\n");
      while (i< 8)
        {
          i++;
          printf("hello\n");
        }
    }
}
```

(A) hi is printed 8 times, hello 7 times and then hi 2 times
(B) hi is printed 10 times, hello 7 times
(C) hi is printed once, hello 7 times
(D) hi is printed once, hello 7 times and then hi 2 times

9. What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
int a = 10, b = 5, c = 3;
b != !a;
c = !!a;
printf("%d\t%d", b, c);
}
```

(A) 5 1
(B) 0 3
(C) 5 3
(D) 1 1

10. Can we use a function as a parameter of another function in C?
[Eg: void wow(intfunc())]

(A) Yes, and we can use the function value conveniently
(B) Yes, but we call the function again to get the value, not as convenient as in using variable
(C) No, C does not support it
(D) This case is compiler dependent

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11. The correct syntax in C to access the member of the ith structure in the array of structures is?

Assuming: struct temp

```
{
int b;
}s[50];
```

(A) `s.b.[i];`
(B) `s.[i].b;`
(C) `s.b[i];`
(D) `s[i];`

12. Which of the following data types is accepted while declaring bit-fields in C ?

(A) Char
(B) Float
(C) Double
(D) Struct

13. In C there are two groups of string functions defined in the header <string.h>. What are they?

(A) First group names beginning with str; second group names beginning with mem
(B) First group names beginning with str; second group names beginning with is
(C) First group names beginning with string; second group names beginning with mem
(D) First group names beginning with str; second group names beginning with type

14. Functions in C are always

(A) Internal by default
(B) External by default
(C) Either Internal or External
(D) External and Internal are not valid terms for functions

15. How many times the following C program prints yes?

```
main()
  {
        fork();fork();printf("yes");

  }
```

(A) only
(B) twice
(C) four times
(D) eight times

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16. Reusability of code in C++ is achieved through

(A) Inheritance
(B) Polymorphism
(C) Encapsulation
(D) Both (A) and (B)

17. << is called as …… operator

(A) insertion
(B) extraction
(C) greater than
(D) lesser than

18. A class that contains at least one pure virtual function is called as

(A) pure class
(B) abstract class
(C) base class
(D) derived class

19. One of the major disadvantage with late binding is

(A) the source code should be made available at compile time
(B) the program runs slow
(C) dynamic variables cannot be used in the program
(D) static variables cannot be used

20. Run time polymorphism can be achieved with

(A) Virtual Base class
(B) Container class
(C) Virtual function
(D) Both (A) and (C)

21. What is meant by ofstream in C++ ?

(A) Writes to a file
(B) Reads from a file
(C) Writes to a file and Reads from a file
(D) Appending into a file

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22. Which feature of OOP indicates code reusability?

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

23. If a function can perform more than 1 type of task, where the function name remains same, which feature of OOP is used here?

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

24. Which concept of OOP is false for C++?

(A) Code can be written without using classes
(B) Code must contain at least one class
(C) A class must have member functions
(D) At least one object should be declared in code

25. Which among the following best describes constructor overloading?



(A) Defining one constructor in each class of a program
(B) Defining more than one constructor in single class
(C) Defining more than one constructor in single class with different signature
(D) Defining destructor with each constructor

26. Virtual function is …….. class function which expected to be redefined in …… class, so that when reference is made to derived class object using pointer then we can call virtual function to execute …… class definition version

(A) base, derived, derived
(B) derived, derived, derived
(C) base, derived, base
(D) base, base, derived

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27. For C++ choose the correct option

1 extern int i;
2 int i;

(A) both 1 and 2 declare i
(B) 1 declares the variable i and 2 defines i
(C) 1 declares and defines i, 2 declares i
(D) 1 declares i, 2 declares and defines i

28. What will be the output of the following C++ code?

```
#include <iostream>
using namespace std;
int x[100];

int main()
{
      cout<< x[99] <<endl;
}
```

(A) Garbage value
(B) 0
(C) 99
(D) Error

29. In an Entity-Relationship diagram ellipse represent

(A) Entity
(B) Attribute
(C) Relationship
(D) Database

30. The database schema is written in

(A) HLL
(B) DDL
(C) DML
(D) DCL

31. The primary key is selected from the

(A) composite keys
(B) determinants
(C) candidate keys
(D) foreign keys

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32. A functional dependency is a relation between or among

(A) tables
(B) rows
(C) attributes
(D) relations

33. A function that has no partial dependencies is in …… form

(A) 1NF
(B) 2NF
(C) 3NF
(D) BCNF

34. Consider the following set of relations

EMP(emp_no,emp_name,dept_no,salary)
DEPT(dept_no,dept_name,location)

Write SQL query for the following:

Find all the employees whose department are located in 'Mumbai' and salary is greater than Rs. 20,000



(A) select emp_name from DEPT where dept_no and location='Mumbai';
(B) select emp_name from EMP where salary > 20,000 and dept_no in (select dept_no from DEPT where location = 'Mumbai');
(C) select dept_no ,count(emp_no) from EMP where salary > 50,000 group by dept_no;
(D) update table EMP where emp_name='Mumbai';

35. Which is called as a virtual table in SQL ?

(A) INNER JOIN
(B) JOIN
(C) VIEW
(D) OUTER JOIN

36. The SQL ALTER statement can be used to

(A) change the table data
(B) change the table structure
(C) delete rows from the table
(D) add rows to the table

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37. The 4NF is for

(A) related to normalized dependency
(B) related to transitive dependency
(C) function dependency
(D) non trivial function or multi value dependency

38. Which of the following is not a logical database structure?

(A) Tree
(B) Relational
(C) Network
(D) Chain

39. For each attribute of a relation, there is a set of permitted values, called the …….. of that attribute

(A) Domain
(B) Relation
(C) Set
(D) Schema

40. In SQL, the …… clause allows us to select only those rows in the result relation of the ……. clause that satisfy a specified predicate

(A) Where, from
(B) From, select
(C) Select, from
(D) From, where

41. Which of the join operations do not preserve non matched tuples?

(A) Left outer join
(B) Right outer join
(C) Inner join
(D) Natural join

42. What type of join is needed when you wish to include rows that do not have matching values?

(A) Equi-join
(B) Natural join
(C) Outer join
(D) All of the above

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43. The …….. operation, denoted by –, allows us to find tuples that are in one relation but are not in another

(A) Union
(B) Set-difference
(C) Difference
(D) Intersection

44. This Query can be replaced by which one of the following?

```
SELECT name, course_id
FROM instructor, teaches
WHERE instructor_ID= teaches_ID;
```

(A) Select name,course_id from teaches,instructor where instructor_id=course_id;
(B) Select name, course_id from instructor natural join teaches;
(C) Select name, course_id from instructor;
(D) Select course_id from instructor join teaches;

45. Which forms has a relation that possesses data about an individual entity?

(A) 2NF
(B) 3NF
(C) 4NF
(D) 5NF

46. Insertion of a large number of entries at a time into an index is referred to as …….. of the index

(A) Loading
(B) Bulk insertion
(C) Bulk loading
(D) Increase insertion

47. A full binary tree with $2n + 1$ nodes contain

(A) n leaf nodes
(B) n non-leaf nodes
(C) $n - 1$ leaf nodes
(D) $n - 1$ non-leaf nodes

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48. The quick sort algorithm exploit …….. design technique

(A) Backtracking
(B) Dynamic programming
(C) Divide and conquer
(D) Overflow

49. For merging two sorted lists of sizes m and n into a sorted list of size $m + n$, we require comparisons of

(A) $O(m)$
(B) $O(n)$
(C) $O(m + n)$
(D) $O(\log(m) + \log(n))$

50. Recursive algorithm are based on

(A) top-down approach
(B) bottom-up approach
(C) hierarchical approach
(D) divide and conquer approach

51. Elapsed time between initiating a query and receiving a response is called

(A) response time
(B) turnaround time
(C) waiting time
(D) processing time

52. An AVL tree is a binary search tree in which

(A) heights of left and right subtrees of the root or any other node except leaves differ by atmost 1
(B) heights of left and right subtrees of the root differ by atleast 1
(C) heights of left and right subtrees of the root differ by atmost 1
(D) heights of left and right subtrees of the root or any other node except leaves differ by atleast 1

53. A linear list of elements in which deletion can be done from one end (front) and insertion can take place only at the other end (rear)is known as

(A) queues
(B) stacks
(C) trees
(D) dequeue

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54. Which of the following is false about a doubly linked list?

(A) We can navigate in both the directions
(B) It requires more space than a singly linked list
(C) The insertion and deletion of a node take a bit longer
(D) Implementing a doubly linked list is easier than singly linked list

55. Which of the following is not an application of priority queue?

(A) Huffman codes
(B) Interrupt handling in operating system
(C) Undo operation in text editors
(D) Bayesian spam filter

56. What is the number of moves required to solve Tower of Hanoi problem for k disks?

(A) $2(k - 1)$
(B) $2k + 1$
(C) $2(k + 1)$
(D) $2k - 1$

57. If binary trees are represented in arrays, what formula can be used to locate a left child, if the node has an index i?

(A) $2i + 1$
(B) $2i + 2$
(C) $2i - 1$
(D) $2i - 2$

58. Which of the following is false about a binary search tree?

(A) The left child is always lesser than its parent
(B) The right child is always greater than its parent
(C) The left and right sub-trees should also be binary search trees
(D) Inorder sequence gives decreasing order of elements

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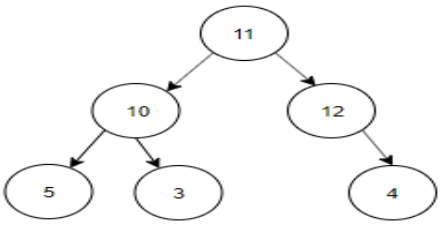
59. What does the following piece of code do?

```
public void func(Tree root)
{
        System.out.println(root.data());
        func(root.left());
        func(root.right());
}
```

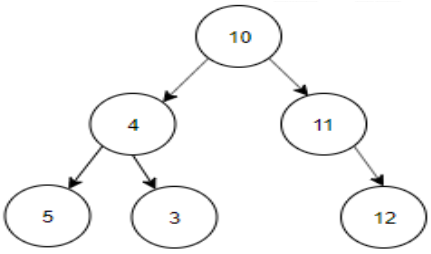
(A) Preorder Traversal
(B) Inorder Traversal
(C) Postorder Traversal
(D) Level order Traversal

60. Construct a binary search tree with the below information.
The preorder traversal of a binary search tree 10, 4, 3, 5, 11,12

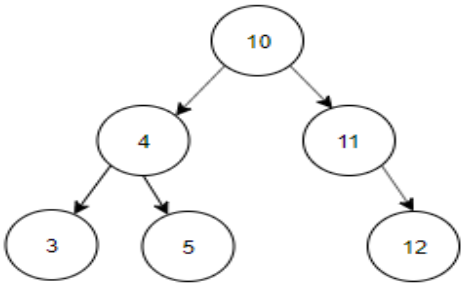
(A)



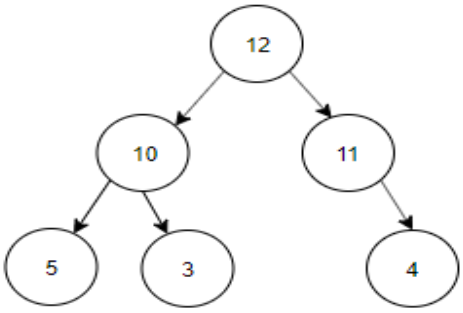
(B)



(C)



(D)



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61. Which of the following is the most widely used external memory data structure?

(A) AVL tree
(B) B-tree
(C) Red-black tree
(D) Both AVL tree and Red-black tree

62. A B-tree of order 4 and of height 3 will have a maximum of …… keys

(A) 255
(B) 63
(C) 127
(D) 188

63. The worst case complexity of deleting any arbitrary node value element from heap is

(A) $O(\log n)$
(B) $O(n)$
(C) $O(n \log n)$
(D) $O(n^2)$

64. The number of elements in the adjacency matrix of a graph having 7 vertices is

(A) 7
(B) 14
(C) 36
(D) 49

65. What is the maximum number of edges present in a simple directed graph with 7 vertices if there exists no cycles in the graph?

(A) 21
(B) 7
(C) 6
(D) 49

66. The postfix expression of the infix expression (a+b) * (c+d) is

(A) *+ab+cd
(B) ab+*cd+
(C) abcd++*
(D) ab+cd+*

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67. The worst and average case time complexities of Quicksort is as follows

(A) $O(n \log n)$ and $O(n)$
(B) $O(n^2)$ and $O(\log n)$
(C) $O(\log 2)$ and $O(\log n)$
(D) $O(n^2)$ and $O(n \log n)$

68. If $T(n)$ be defined by $T(1) = 7$ and $T(n + 1) = 3n + T(n)$ for all integers $n \geq 1$. Which of the following represents the order of growth of $T(n)$ as a function of n?

(A) $\Theta(n)$
(B) $\Theta(n \log n)$
(C) $\Theta(n^2)$
(D) $\Theta(2^n)$

69. Which of the following are arranged in increasing order of growth rates?

(A) 2^n, $\log n$, n^3, $n \log n$
(B) n^3, $n \log n$, $\log n$, n^3
(C) $\log n$, $n \log n$, n^3, 2^n
(D) $n \log n$, 2^n, $\log n$, n^3

70. A search procedure which associates an address with a key value and provides a mechanism for dealing with two or more values assigned to the same address is called

(A) linear search
(B) binary search
(C) hash coded search
(D) radix search

71. Merge sort uses which of the following technique to implement sorting?

(A) Backtracking
(B) Greedy algorithm
(C) Divide and conquer
(D) Dynamic programming

72. Which of the following stable sorting algorithm takes the least time when applied to an almost sorted array?

(A) Quick sort
(B) Insertion sort
(C) Selection sort
(D) Merge sort

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73. The Basic Input Output System (BIOS) resides in

(A) RAM
(B) ROM
(C) CPU
(D) Memory Cache

74. Multiprogramming of computer system increases

(A) memory
(B) storage
(C) CPU utilization
(D) cost of computation

75. Main memory of computer system is known to be

(A) non volatile
(B) volatile
(C) reserved
(D) restricted

76. Which of the following requires a device driver ?

(A) Register
(B) Cache
(C) Main memory
(D) Disk

77. The request and release of resources are

(A) command line statements
(B) interrupts
(C) system calls
(D) special programs

78. Banker's algorithm for resource allocation deals with

(A) Deadlock prevention
(B) Deadlock avoidance
(C) Deadlock recovery
(D) Mutual exclusion

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79. The strategy of allowing processes that are logically runnable to be temporarily suspended is called

(A) preemptive scheduling
(B) non preemptive scheduling
(C) shortest job first
(D) first come first served

80. Fork is

(A) the dispatching of a task
(B) the creation of a new job
(C) the creation of a new process
(D) increasing the priority of a task

81. The principal of locality of reference justifies the use of

(A) reenterable
(B) non reusable
(C) virtual memory
(D) cache memory

82. Semaphores



(A) Synchronize critical resources to prevent deadlock
(B) Are used to do I/O
(C) Are used for memory management
(D) Are used to allow process to communicate with one another

83. What does the following unix command do?

grep nd xyz | wc –l

(A) Combine both the files nd and xyz land count number of lines
(B) Count the number of characters in the file xyz
(C) Count the number of lines in the file xyz and nd
(D) Count the number of lines having the pattern nd in the file xyz

84. Which of the policy does not replace a page if it is not in the favored subset of a process's page?

(A) FIFO
(B) LRU
(C) Working set
(D) LFU

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85. Which of the following is not a technique to avoid a collision?

(A) Make the hash function appear random
(B) Use the chaining method
(C) Use uniform hashing
(D) Increasing hash table size

86. RPC provides a(an) …….. on the client side, a separate one for each remote procedure

(A) Stub
(B) Identifier
(C) Name
(D) Process identifier

87. Process are classified into different groups in

(A) shortest job scheduling algorithm
(B) round robin scheduling algorithm
(C) priority scheduling algorithm
(D) multilevel queue scheduling algorithm

88. Which one of the following cannot be scheduled by the kernel?



(A) kernel level thread
(B) user level thread
(C) process of OS
(D) kernel level process

89. Mutual exclusion implies that

(A) if a process is executing in its critical section, then no other process must be executing in their critical sections
(B) if a process is executing in its critical section, then other processes must be executing in their critical sections
(C) if a process is executing in its critical section, then all the resources of the system must be blocked until it finishes execution
(D) None of the above

90. Semaphore is ……. to solve the critical section problem

(A) a hardware for a system
(B) a special program for a system
(C) an integer variable
(D) None of the above

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91. Semaphores are mostly used to implement

(A) System calls
(B) IPC mechanisms
(C) System protection
(D) None of the above

92. Every time a request for allocation cannot be granted immediately, the detection algorithm is invoked. This will help identify

(A) the set of processes that have been deadlocked
(B) the set of processes in the deadlock queue
(C) the specific process that caused the deadlock
(D) All of the above

93. Every address generated by the CPU is divided into two parts. They are

(A) frame bit and page number
(B) page number and page offset
(C) page offset and frame bit
(D) frame offset and page offset

94. With paging there is no ……. fragmentation

(A) Internal
(B) External
(C) either type of
(D) None of the above

95. In paged memory systems, if the page size is increased, then the internal fragmentation generally

(A) becomes less
(B) becomes more
(C) remains constant
(D) None of the above

96. When device A has a cable that plugs into device B, and device B has a cable that plugs into device C and device C plugs into a port on the computer, this arrangement is called a ……

(A) port
(B) daisy chain
(C) bus
(D) cable

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97. The hardware mechanism that allows a device to notify the CPU is called

(A) Polling
(B) Interrupt
(C) Driver
(D) Controlling

98. In real time operating system

(A) all processes have the same priority
(B) a task must be serviced by its deadline period
(C) process scheduling can be done only once
(D) kernel is not required

99. What are the common security threats?

(A) File shredding
(B) File sharing and permission
(C) File corrupting
(D) File integrity

100. Which file is a sequence of bytes organized into blocks understandable by the system's linker?

(A) object file
(B) source file
(C) executable file
(D) text file

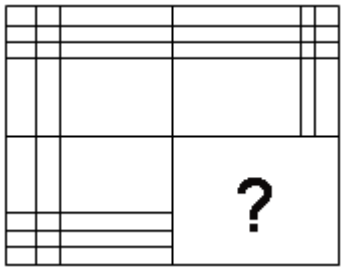
101. Identify the figure that completes the pattern

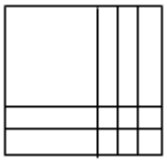


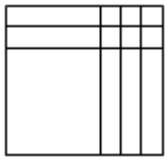
(A) 1
(B) 2
(C) 3
(D) 4

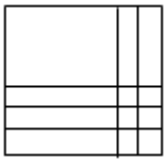
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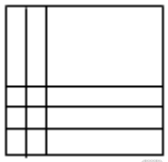
102. Find which one would complete the series



(A) 

(B) 

(C) 

(D) 

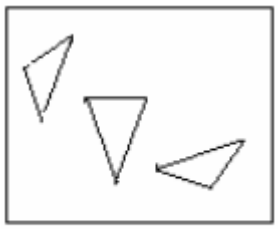
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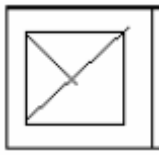
(A) 1
(B) 2
(C) 3
(D) 4

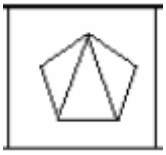
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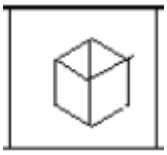
104. Find out which of the figure (a), (b), (c), (d) can be formed from the pieces given in fig. (X)

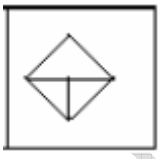


(X)

(A) 

(B) 

(C) 

(D) 

105. Choose the alternative which is closely resembles the mirror image of the given combination

MALAYALAM

(1) MALAYALAM (2) MALAYALAM

(3) MALAYALAM (4) MALAYALAM

(A) 1
(B) 2
(C) 3
(D) 4

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106. Find which one would complete the series



(A) 

(B) 

(C) 

(D) 

107. Find which one would complete the series



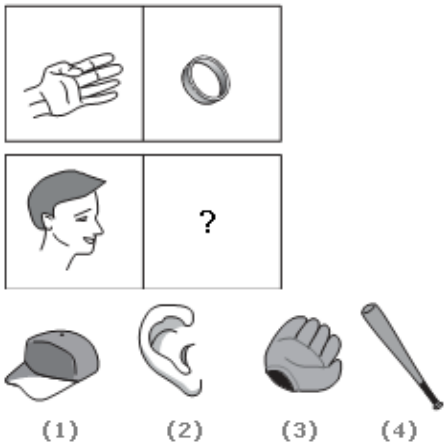
(A) 

(B) 

(C) 

(D) 

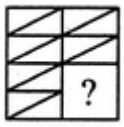
108. Choose the picture that would go in the empty box so that the two bottom pictures are related in the same way as the top two are related



(A) 1
(B) 2
(C) 3
(D) 4

FOR REFERENCE ONLY

109. Identify the figure that completes the pattern



(A) 

(B) 

(C) 

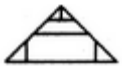
(D) 

110. Identify the figure that completes the pattern



(A) 

(B) 

(C) 

(D) 

111. In certain language, MADRAS is coded as NBESBT, how is BOMBAY coded in that code

(A) CPNCBZ
(B) CPNCBX
(C) DPNCBZ
(D) DPNCBX

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112. If JOSEPH is coded as FKOALD, then GEORGE will be coded as

(A) HAKNCA
(B) CBKNCA
(C) CAKNCA
(D) CALNCA

113. If FRIEND is coded as HUMJTK, how is CANDLE written in that code ?

(A) EDRIRL
(B) DCQHQK
(C) DEQJQM
(D) FYOBOC

114. In a certain code, THEN is coded as VFGL. How the WORD may be coded ?

(A) UQPF
(B) YMTB
(C) YMVB
(D) VQFP

115. If A = 4, K = 3, N = 2, P = 1, then the sum of which set of the letters makes the highest number ?

(A) KANPK
(B) NPAKN
(C) PKANA
(D) NAKNA

116. If train is called bus, bus is called tractor, tractor is called car, car is called scooter, scooter is called bicycle, bicycle is called moped, which is used to plough a field ?

(A) Train
(B) Bus
(C) Tractor
(D) Car

117. 'man' is coded as 'woman', 'woman' is coded as 'girl', 'girl' is coded as 'boy', 'boy' is coded as 'worker' then 6 year female is known as ?

(A) woman
(B) girl
(C) man
(D) boy

FOR REFERENCE ONLY

118. If the code of 'HIGH' is '8978', then what will be decode for '4516' ?

(A) FEAD
(B) DEAF
(C) BACH
(D) JADE

119. Rearrange the following parts (1, 2, 3 and 4) in proper sequence to obtain a correct sentence

1. its best
2. is simply
3. science
4. the common sense at

(A) 1, 2, 4, 3
(B) 4, 2, 1, 3
(C) 2, 3, 4, 1
(D) 3, 2, 4, 1

120. Fill in the blanks with the most appropriate option.

My uncle decided to take …….. and my sister to the market.

(A) I
(B) mine
(C) me
(D) myself

121. Fill in the blanks with the most appropriate option.

Man must ……. to stop pollution.

(A) act
(B) perform
(C) operate
(D) behave

122. Find the odd word from the given alternative

(A) Red
(B) Blue
(C) Green
(D) White

FOR REFERENCE ONLY

123. Pick the odd man out

(A) Preprocessor
(B) Header File
(C) Macros
(D) Compiler

124. Which one does not belong to the group ?

(A) January
(B) August
(C) June
(D) December

125. Choose the pair that best represents a similar relationship to the one expressed in the original pair of words

SIAMESE : CAT

(A) Type : breed
(B) Dog : puppy
(C) Mark : spot
(D) Romaine : lettuce

126. Read the definition and all four choices carefully, and find the answer that provides the best example of the given definition

Posthumous Publication occurs when a book is published after the author's death.
Which situation below is the best example of Posthumous Publication?

(A) Richard's illness took his life before he was able to enjoy the amazing early reviews of his novel
(B) Melissa's publisher cancels her book contract after she fails to deliver the manuscript on time
(C) Clarence never thought he'd live to see the third book in his trilogy published
(D) Elizabeth is honored with a prestigious literary award for her writing career and her daughter accepts the award on behalf of her deceased mother

127. Look at the series ELFA, GLHA, ILJA, ……., MLNA.

What should fill the blank?

(A) OLPA
(B) KLMA
(C) LLMA
(D) KLLA

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128. The following question presents a situation and asks you to make a judgment regarding that particular circumstance. Choose an answer based on given information.

Eileen is planning a special birthday dinner for her husband's 35th birthday. She wants the evening to be memorable, but her husband is a simple man who would rather be in jeans at a baseball game than in a suit at a fancy restaurant. Which restaurant below should Eileen choose?

(A) Alfredo's offers fine Italian cuisine and an elegant Tuscan decor. Patrons will feel as though they've spent the evening in a luxurious Italian villa
(B) Pancho's Mexican Buffet is an all-you-can-eat family style smorgasbord with the best tacos in town
(C) The Parisian Bistro is a four-star French restaurant where guests are treated like royalty. Chef Dilbert Olay is famous for his beef bourguignon
(D) Marty's serves delicious, hearty meals in a charming setting reminiscent of a baseball club house in honor of the owner,Marty Lester, a former major league baseball all-star

129. The following question presents a situation and asks you to make a judgment regarding that particular circumstance. Choose an answer based on given information.

The school principal has received complaints from parents about bullying in the school yard during recess. He wants to investigate and end this situation as soon as possible, so he has asked the recess aides to watch closely. Which situation should the recess aides report to the principal?

(A) A girl is sitting glumly on a bench reading a book and not interacting with her peers
(B) Four girls are surrounding another girl and seem to have possession of her backpack
(C) Two boys are playing a one-on-one game of basketball and are arguing over the last basket scored
(D) Three boys are huddled over a handheld video game, which isn't supposed to be on school grounds

FOR REFERENCE ONLY

130. The following question presents a situation and asks you to make a judgment regarding that particular circumstance. Choose an answer based on given information.

Mark is working with a realtor to find a location for the toy store he plans to open in his town. He is looking for a place that is either in, or not too far from, the center of town and one that would attract the right kind of foot traffic. Which of the following locations should Mark's realtor call to his attention?

(A) a storefront in a new high-rise building near the train station in the center of town whose occupants are mainly young, childless professionals who use the train to commute to their offices each day
(B) a little shop three blocks away from the town's main street, located across the street from an elementary school and next door to an ice cream store
(C) a stand-alone storefront on a quiet residential street ten blocks away from the town's center
(D) a storefront in a small strip mall located on the outskirts of town that is also occupied by a pharmacy and a dry cleaner

131. The following question presents a situation and asks you to make a judgment regarding that particular circumstance. Choose an answer based on given information.

Rita, an accomplished pastry chef who is well known for her artistic and exquisite wedding cakes, opened a bakery one year ago and is surprised that business has been so slow. A consultant she hired to conduct market research has reported that the local population doesn't think of her shop as one they would visit on a daily basis but rather a place they'd visit if they were celebrating a special occasion. Which of the following strategies should Rita employ to increase her daily business?

(A) making coupons available that entitle the coupon holder to receive a 25% discount on wedding, anniversary, or birthday cakes
(B) exhibiting at the next Bridal Expo and having pieces of one of her wedding cakes available for tasting
(C) placing a series of ads in the local newspaper that advertise the wide array of breads
(D) moving the bakery to the other side of town

FOR REFERENCE ONLY

132. **Direction:** Read the question carefully and choose the correct answer.

Four defensive football players are chasing the opposing wide receiver, who has the ball. Calvin is directly behind the ball carrier. Jenkins and Burton are side by side behind Calvin. Zeller is behind Jenkins and Burton. Calvin tries for the tackle but misses and falls. Burton trips. Which defensive player tackles the receiver?

(A) Burton
(B) Zeller
(C) Jenkins
(D) Calvin

133. **Direction:** Read the question carefully and choose the correct answer.

A four-person crew from Classic Colors is painting Mr. Field's house. Michael is painting the front of the house. Ross is in the alley behind the house painting the back. Jed is painting the window frames on the north side, Shawn is on the south. If Michael switches places with Jed, and Jed then switches places with Shawn, where is Shawn?

(A) In the alley behind the house
(B) On the north side of the house
(C) In front of the house
(D) On the south side of the house

134. **Direction:** Read the question carefully and choose the correct answer.

As they prepare for the state championships, one gymnast must be moved from the Level 2 team to the Level 1 team. The coaches will move the gymnast who has won the biggest prize and who has the most experience. In the last competition, Roberta won a bronze medal and has competed seven times before. Jamie has won a silver medal and has competed fewer times than Roberta. Beth has won a higher medal than Jamie and has competed more times than Roberta. Michele has won a bronze medal, and it is her third time competing.

Who will be moved to the Level 1 team?

(A) Roberta
(B) Beth
(C) Michele
(D) Jamie

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135. **Direction:** Read the question carefully and choose the correct answer.

The high school math department needs to appoint a new chairperson, which will be based on seniority. Ms. West has less seniority than Mr. Temple, but more than Ms. Brody. Mr. Rhodes has more seniority than Ms. West, but less than Mr. Temple. Mr. Temple doesn't want the job. Who will be the new math department chairperson?

(A) Mr. Rhodes
(B) Mr. Temple
(C) Ms. West
(D) Ms. Brody

136. **Direction:** You are given three true statements: Fact 1, Fact 2, and Fact 3. Then, you are given three more statements (labeled I, II, and III), and you must determine which of these, if any, is also a fact. One or two of the statements could be true; all of the statements could be true; or none of the statements could be true. Choose your answer based solely on the information given in the first three facts.

Fact 1: All dogs like to run
Fact 2: Some dogs like to swim
Fact 3: Some dogs look like their masters

If the first three statements are facts, which of the following statements must also be a fact?

I All dogs who like to swim look like their masters
II Dogs who like to swim also like to run
III Dogs who like to run do not look like their masters

(A) I only
(B) II only
(C) II and III only
(D) None of the statements is a known fact

FOR REFERENCE ONLY

137. **Direction:** You are given three true statements: Fact 1, Fact 2, and Fact 3. Then, you are given three more statements (labeled I, II, and III), and you must determine which of these, if any, is also a fact. One or two of the statements could be true; all of the statements could be true; or none of the statements could be true. Choose your answer based solely on the information given in the first three facts.

Fact 1: Jessica has four children
Fact 2: Two of the children have blue eyes and two of the children have brown eyes
Fact 3: Half of the children are girls

If the first three statements are facts, which of the following statements must also be a fact?

I At least one girl has blue eyes
II Two of the children are boys
III The boys have brown eyes

(A) I only
(B) II only
(C) II and III only
(D) None of the statements is a known fact

138. **Direction:** You are given three true statements: Fact 1, Fact 2, and Fact 3. Then, you are given three more statements (labeled I, II, and III), and you must determine which of these, if any, is also a fact. One or two of the statements could be true; all of the statements could be true; or none of the statements could be true. Choose your answer based solely on the information given in the first three facts.

Fact 1: Pictures can tell a story
Fact 2: All storybooks have pictures
Fact 3: Some storybooks have words

If the first three statements are facts, which of the following statements must also be a fact?

I Pictures can tell a story better than words can
II The stories in storybooks are very simple
III Some storybooks have both words and pictures

(A) I only
(B) II only
(C) III only
(D) None of the statements is a known fact

FOR REFERENCE ONLY

139. **Direction:** You are given three true statements: Fact 1, Fact 2, and Fact 3. Then, you are given three more statements (labeled I, II, and III), and you must determine which of these, if any, is also a fact. One or two of the statements could be true; all of the statements could be true; or none of the statements could be true. Choose your answer based solely on the information given in the first three facts.

Fact 1: Robert has four vehicles
Fact 2: Two of the vehicles are red
Fact 3: One of the vehicles is a minivan

If the first three statements are facts, which of the following statements must also be a fact?

I Robert has a red minivan
II Robert has three cars
III Robert's favorite color is red

(A) I only
(B) II only
(C) II and III only
(D) None of the statements is a known fact

140. In a week the prices of a bag of rice were ₹350, ₹280, ₹340, ₹290, ₹320, ₹310, ₹300. The range is

(A) 60
(B) 70
(C) 80
(D) 100

FOR REFERENCE ONLY

141. If $x^2, 4x+3, 25$ are in geometric sequence, find the values of x

(A) $-\frac{1}{3}$

(B) $\frac{1}{3}$ or -3

(C) -3

(D) $\frac{-1}{3}$ or 3

142. Sum of first six terms of series 1 + 7 + 13 +… is

(A) 12
(B) 24
(C) 48
(D) 96

143. Look at this series : 1000, 200, 40, … What number should come next?

(A) 10
(B) 8
(C) 9
(D) 12

144. If for the triangle whose perimeter is 37 cms and length of sides are in G.P. also the length of the smallest side is 9 cms then length of remaining two sides are ……. and ……..

(A) 12,16
(B) 14,14
(C) 10,18
(D) 15,13

145. If three positive real numbers a, b, c are in A.P. and if abc = 64 then the minimum value of b is…….

(A) 6
(B) 5
(C) 4
(D) 3

FOR REFERENCE ONLY

146. Function is said to be …… if and only if f(a) = f(b) implies that a = b for all a and b in the domain of f

(A) One-to-many
(B) One-to-one
(C) Many-to-many
(D) Many-to-one

147. In a group of 6 boys and 4 girls, four children are to be selected. In how many different ways can they be selected such that at least one boy should be there?

(A) 159
(B) 194
(C) 205
(D) 209

148. At what rate of compound interest per annum will a sum of ₹1200 become ₹ 1348.32 in 2 years?

(A) 4%
(B) 5%
(C) 6%
(D) 7%

149. The difference of {1, 2, 3} and {1, 2, 5} is the set

(A) {1}
(B) {5}
(C) {3}
(D) {2}

150. If $A = \begin{bmatrix} x & 1 \\ 1 & 0 \end{bmatrix}$ and A^2 is an identity matrix, then x is equal to

(A) 1
(B) 0
(C) −1
(D) 2

FOR REFERENCE ONLY

ANSWER KEY

Subject Name: 502 MSC COMPUTER SCIENCE

SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key	SI No.	Key
1	B	31	C	61	B	91	B	121	A
2	B	32	C	62	A	92	A	122	D
3	A	33	B	63	A	93	B	123	D
4	C	34	B	64	D	94	B	124	C
5	A	35	C	65	C	95	B	125	D
6	B	36	B	66	D	96	B	126	A
7	B	37	D	67	D	97	B	127	D
8	D	38	D	68	C	98	B	128	D
9	A	39	A	69	C	99	B	129	B
10	C	40	A	70	C	100	A	130	B
11	D	41	C	71	C	101	C	131	C
12	A	42	C	72	D	102	C	132	C
13	A	43	B	73	B	103	B	133	C
14	B	44	B	74	C	104	B	134	B
15	C	45	C	75	B	105	B	135	A
16	A	46	C	76	D	106	C	136	B
17	A	47	B	77	C	107	B	137	B
18	B	48	C	78	B	108	A	138	C
19	B	49	C	79	A	109	D	139	D
20	C	50	B	80	C	110	D	140	B
21	A	51	B	81	D	111	A	141	D
22	B	52	A	82	A	112	C	142	D
23	C	53	A	83	D	113	A	143	B
24	B	54	D	84	C	114	B	144	A
25	C	55	C	85	D	115	D	145	C
26	A	56	D	86	A	116	D	146	B
27	D	57	A	87	D	117	D	147	D
28	B	58	D	88	B	118	B	148	C
29	B	59	C	89	A	119	D	149	C
30	B	60	C	90	C	120	C	150	B

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Entrance Exams

- Agricultural Entrance Exams
- Architecture Entrance Exam
- Arts and Humanities Entrance Exams
- Commerce Entrance Examinations
- Common Entrance Examinations
- Computer Application Entrance Exams
- Design Entrance Exams
- Education Entrance Exams
- Engineering Entrance Exams
- Hotel Management Entrance Exams
- Law Entrance Exams
- MBA Entrance Exams
- Media & Journalism Entrance Exams
- Medical Entrance Exams
- Nursing Entrance Exams
- Pharmacy Entrance Exams
- Science Entrance Exams
- Diploma & Polytechnic
- Lateral Entry