

1. The postfix expression for the infix expression $A + B * (C + D) / F + D * E$ is:
 - (A) $AB + CD + *F/D + E*$
 - (B) $ABCD + *F/ + DE* +$
 - (C) $A*B + CD/F*DE + +$
 - (D) $A + *BCD/F*DE + +$
2. Which of the following is essential for converting infix expression to postfix form efficiently?
 - (A) An operator stack
 - (B) An operand stack
 - (C) An operator stack and an operand stack
 - (D) No need of a stack
3. The following sequence of operation is performed on stack:
push(1), push(2), pop, push(1), push(2), pop, pop, pop, push(2), pop.
The sequence of popped out values is?
 - (A) 2, 2, 1, 1, 2
 - (B) 2, 2, 1, 2, 2
 - (C) 2, 1, 2, 2, 1
 - (D) 2, 1, 2, 1, 2
4. Stack can be implemented using and
 - (A) Trees and Linked List
 - (B) Array and Graph
 - (C) Linked list and Array
 - (D) Queue and Graph
5. In a circular linked list organization, insertion of a record involves the assignment of
 - (A) No pointer
 - (B) 1 Pointer
 - (C) 2 Pointers
 - (D) 3 Pointers

6. Which of the following is not a type of constructor?
- (A) Copy constructor
 - (B) Default constructor
 - (C) Friend constructor
 - (D) Parameterized constructor
7. Which of the following concept determines at runtime what method to invoke?
- (A) Dynamic Binding
 - (B) Dynamic Loading
 - (C) Dynamic Typing
 - (D) Data Hiding
8. Which of the following two entities (reading from Left to Right) can be connected by the dot operator?
- (A) A class object and a member of that class
 - (B) A class and a member of that class
 - (C) A class member and a class object
 - (D) A class object and a class
9. Which of the following is not an arithmetic operation?
- (A) `a *= 10;`
 - (B) `a /= 10;`
 - (C) `a != 10;`
 - (D) `a %= 10;`
10. What is the output of this C code?
- ```
#include <stdio.h>
void main()
{
 double k = 0;
 for (k = 0.0; k < 3.0; k++)
 printf("Hello");
}
```
- (A) Run time error
  - (B) Hello is printed thrice
  - (C) Hello is printed twice
  - (D) Hello is printed infinitely

11. Relational operators can be used on

- (A) structure
- (B) long
- (C) string
- (D) float

12. What is the output of this C code?

```
#include <stdio.h>
void main()
{
 int k;
 for (k = -3; k < -5; k++)
 printf("Hello");
}
```

- (A) Hello
- (B) Infinite Hello
- (C) Run time error
- (D) Nothing

13. `#include <stdio.h>`  
`int main()`  
`{`  
 `int i = 0;`  
 `for (; ; ;)`  
 `printf("In for loop\n");`  
 `printf("After loop\n");`  
`}`

Output of above code

- (A) compile error
- (B) infinite loop
- (C) after loop
- (D) undefined behaviour

14. If a process needs I/O to or from a disk, and if the drive or controller is busy then:
- (A) the request will be placed in the queue of pending requests for that drive
  - (B) the request will not be processed and will be ignored completely
  - (C) the request will not be placed
  - (D) None of the above
15. SSTF algorithm, like SJF ..... of some requests.
- (A) may cause starvation
  - (B) will cause starvation
  - (C) does not cause starvation
  - (D) causes aging
16. The part of machine level instruction, which tells the central processor what has to be done, is
- (A) Operation code
  - (B) Address
  - (C) Locator
  - (D) Flip-Flop
17. Which of the following refers to the associative memory?
- (A) The address of the data is generated by the CPU
  - (B) The address of the data is supplied by the users
  - (C) There is no need for an address i.e. the data is used as an address
  - (D) The data are accessed sequentially
18. To avoid the race condition, the number of processes that may be simultaneously inside their critical section is
- (A) 8
  - (B) 1
  - (C) 16
  - (D) 0

19. Process is
- (A) program in High level language kept on disk
  - (B) contents of main memory
  - (C) a program in execution
  - (D) a job in secondary memory
20. Which of the following system software does the job of merging the records from two files into one?
- (A) Security software
  - (B) Utility program
  - (C) Networking software
  - (D) Documentation system
21. Which of the following instruction steps, would be written within the diamond-shaped box, of a flowchart?
- (A)  $S = B - C$
  - (B)  $IS\ A < 10$
  - (C) PRINT A
  - (D) DATA X, 4Z
22. Interprocess communication
- (A) is required for all processes
  - (B) is usually done via disk drives
  - (C) is never necessary
  - (D) allows processes to synchronize activity
23. A system program that sets up an executable program in main memory, ready for execution is
- (A) Assembler
  - (B) Linker
  - (C) Loader
  - (D) Compiler

24. Which of the following are loaded into main memory when the computer is booted?
- (A) Internal command instructions
  - (B) External command instructions
  - (C) Utility programs
  - (D) Word processing instructions
25. The FIFO algorithm
- (A) executes first the job that last entered the queue
  - (B) executes first the job that first entered the queue
  - (C) executes first the job that has been in the queue the longest
  - (D) executes first the job with the least processor needs
26. Which of the following is not a logical data-base structure?
- (A) Tree
  - (B) Relational
  - (C) Network
  - (D) Chain
27. Which of the following are the applications of stack?
- (A) Function calls
  - (B) Large number Arithmetic
  - (C) Evaluation of arithmetic expressions
  - (D) All of the above
28. If the post order traversal of a binary tree is DEBFCA, find the pre order traversal
- (A) ABFCDE
  - (B) ADBFEC
  - (C) ABDECF
  - (D) ABDCEF
29. If several elements are competing for the same bucket in the hash table, what is it called?
- (A) Diffusion
  - (B) Replication
  - (C) Collision
  - (D) Chaining

30. In linked list implementation of a queue, if front and rear pointers are tracked, which of these pointers will change during an insertion into a NONEMPTY queue?
- (A) Only front pointer
  - (B) Only rear pointer
  - (C) Both front and rear pointer
  - (D) No change
31. Consider the following operation performed on a stack of size 5.
- ```
Push(1);  
Pop();  
Push(2);  
Push(3);  
Pop();  
Push(4);  
Pop();  
Pop();  
Push(5);
```
- After the completion of all operation, the number of elements present in stack are
- (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
32. Which of the following is the postfix expression of the given infix expression converted using a stack?
- $$x + y * z + (p * q + r) * s$$
- (A) $xyz * + pq * r + s * +$
 - (B) $xyz * + pq * r + s + *$
 - (C) $xyz + * pq * r + s * +$
 - (D) None of the above
33. 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

34. The data transfer operation that is done without using the CPU is called
- (A) Program controlled data transfer
 - (B) Interrupt controlled data transfer
 - (C) Direct memory access data transfer
 - (D) Bidirectional data transfer
35. The height of tree is the length of the longest root-to-leaf path in it. The maximum and minimum number of nodes in a binary tree of height 5 are
- (A) 63 and 6 respectively
 - (B) 64 and 5 respectively
 - (C) 32 and 6 respectively
 - (D) 31 and 5 respectively
36. Which member function of class cannot modify its objects' attributes?
- (A) Friend functions
 - (B) Private member functions
 - (C) Static member functions
 - (D) Constant member functions
37. What is the minimum number of two-input NAND gates used to perform the function of two input OR gate?
- (A) One
 - (B) Two
 - (C) Three
 - (D) Four
38. The ability to modify the database schema without causing changes to existing application programs is called data independence.
- (A) Logical
 - (B) Physical
 - (C) View
 - (D) None of the above

39. Which of the following is another name of primary index?
- (A) Secondary index
 - (B) Random index
 - (C) Clustering index
 - (D) None of the above
40. If an entity set does not have sufficient attributes to form a primary key, it is called as a entity set.
- (A) Weak
 - (B) Dependent
 - (C) Partial
 - (D) None of the above
41. Given the basic ER and relational models, which of the following is INCORRECT?
- (A) An attribute of an entity can have more than one value
 - (B) An attribute of an entity can be composite
 - (C) In a row of a relational table, an attribute can have more than one value
 - (D) In a row of a relational table, an attribute can have exactly one value or a NULL value
42. The set of all allowable values that an attribute of a record can take is called as
- (A) Fields
 - (B) Domain
 - (C) Constraint
 - (D) None of the above
43. Groups of data items or records that are physically stored and retrieved together is called as
- (A) Cluster
 - (B) Blocks
 - (C) Index
 - (D) None of the above

44. What will be the number of columns of a Cartesian product if the participating relations have 3 and 4 fields each?
- (A) 3
 - (B) 4
 - (C) 12
 - (D) 7
45. What is a DFD?
- (A) The modern version of flowchart
 - (B) Mainly used at systems specification stage
 - (C) The primary output of the system design phase
 - (D) All of the above
46. Which one of the following is an application of Queue Data Structure?
- (A) When a resource is shared among multiple consumers.
 - (B) When data is transferred asynchronously (data not necessarily received at same rate as sent) between two processes
 - (C) Load Balancing
 - (D) All of the above
47. Which of the following sorting algorithms can be used to sort a random linked list with minimum time complexity?
- (A) Insertion Sort
 - (B) Quick Sort
 - (C) Heap Sort
 - (D) Merge Sort
48. The concatenation of two lists is to be performed in $O(1)$ time. Which of the following implementations of a list should be used?
- (A) Singly linked list
 - (B) Doubly linked list
 - (C) Circular doubly linked list
 - (D) Array implementation of lists

49. Identify the incorrect file opening mode from the following.

- (A) r
- (B) x
- (C) w
- (D) A

50. Which of the data types has the size that varies?

- (A) int
- (B) struct
- (C) float
- (D) double

51. What are the things inherited from the base class?

- (A) Constructor and its destructor
- (B) Operator=() members
- (C) Friends
- (D) All of the mentioned

52. Consider the statement, `int val[2][4] = {1, 2, 3, 4, 5, 6, 7, 8};`
4 will be the value of

- (A) `val [1][4]`
- (B) `val [0][4]`
- (C) `val [1][1]`
- (D) None of the above

53. If integer needs two bytes of storage, then maximum value of a signed integer is

- (A) $2^{16} - 1$
- (B) $2^{15} - 1$
- (C) 2^{16}
- (D) 2^{15}

54. Which of the following is the output for the given program fragment?

```
int a = 4, b = 6;  
printf("% d", a == b);
```

- (A) Outputs an error message
- (B) Prints 0
- (C) Prints 1
- (D) None of the above

55. The statement `printf("%d", 10?0?5:11:12);` prints

- (A) 10
- (B) 0
- (C) 12
- (D) 11

56. In the following program

```
main()  
{  
    float a = .5, b = .7;  
    if (b <= 0.7)  
        if (a < 0.5)  
            printf("KCET");  
        else  
            printf("CUSAT");  
    else  
        printf("CET");  
}
```

Output is

- (A) CUSAT
- (B) KCET
- (C) CET
- (D) None of the above

57. Consider the following program segment in C

```
main()
{
printf("CUSAT");
main();
}
```

- (A) is illegal
- (B) keeps on printing CUSAT
- (C) prints CUSAT once
- (D) None of the above

58. `#include<stdio.h>`
`int main(){`
`int k = 5;`
`if(5 == k)`
`printf("%d", k<<2<<1);`
`else`
`printf("Not equal");`
`}`

- (A) 1
- (B) 48
- (C) 40
- (D) Compiler error

59. `#include<stdio.h>`
`int main(){`
`int i=11;`
`int const * p=&i;`
`p++;`
`printf("%d", *p);`
`return 0;`
`}`

- (A) 11
- (B) 12
- (C) Garbage value
- (D) Compiler error

60.

```
#include<stdio.h>
int main(){
int array[2][2][3]={0,1,2,3,4,5,6,7,8,9,10,11};
printf("%d",array[1][0][2]);
return 0;
}
```
- (A) 5
(B) 7
(C) 8
(D) 6
61. What does polymorphism in OOPs mean?
- (A) Concept of allowing overriding of functions
(B) Concept of hiding data
(C) Concept of keeping things in different modules/files
(D) Concept of wrapping things into a single unit
62. Which concept allows you to reuse the written code?
- (A) Encapsulation
(B) Abstraction
(C) Inheritance
(D) Polymorphism
63. When destructors are called?
- (A) When a program ends
(B) When a function ends
(C) When a delete operator is used
(D) All of the mentioned
64. What happens if a user forgets to define a constructor inside a class?
- (A) Error occurs
(B) Segmentation fault
(C) Objects are not created properly
(D) Compiler provides a default constructor to avoid faults/errors

65. Why do we need to handle exceptions?
- (A) To avoid unexpected behaviour of a program during run-time
 - (B) To let compiler remove all exceptions by itself
 - (C) To successfully compile the program
 - (D) To get correct output
66. Which alternative can replace the throw statement?
- (A) for
 - (B) break
 - (C) return
 - (D) exit
67. What is the use of RAII in C++ programming?
- (A) Improve the exception safety
 - (B) Terminate the program
 - (C) Exit from the block
 - (D) Crash the compiler
68. Which of the following is true?
- (A) Static methods cannot be overloaded
 - (B) Static data members can only be accessed by static methods
 - (C) Non-static data members can be accessed by static methods
 - (D) Static methods can only access static members (data and methods)
69. A machine needs a minimum of 100 sec to sort 1000 names by quick sort. The minimum time needed to sort 100 names will be approximately
- (A) 50.2
 - (B) 6.7
 - (C) 72.7
 - (D) 11.2
70. Which of the following is the average number of key comparisons done by sequential search in the successful case?
- (A) $\frac{(n+1)}{2}$
 - (B) $\frac{n}{2}$
 - (C) $n+1$
 - (D) $2n$

71. Which of the following is asymptotically smaller?
- (A) $\lg(\lg^*n)$
 - (B) $\lg^*(\lg n)$
 - (C) $\lg(n!)$
 - (D) $\lg^*(n!)$
72. What is recurrence for worst case of Quicksort and what is the time complexity in worst case?
- (A) Recurrence is $T(n) = T(n - 2) + O(n)$ and time complexity is $O(n^2)$
 - (B) Recurrence is $T(n) = T(n - 1) + O(n)$ and time complexity is $O(n^2)$
 - (C) Recurrence is $T(n) = 2T(n/2) + O(n)$ and time complexity is $O(n \log n)$
 - (D) Recurrence is $T(n) = T(n/10) + T(9n/10) + O(n)$ and time complexity is $O(n \log n)$
73. Which one of the following in place sorting algorithms needs the minimum number of swaps?
- (A) Quick sort
 - (B) Insertion sort
 - (C) Selection sort
 - (D) Heap sort
74. Which of the following is true about Huffman Coding?
- (A) Huffman coding may become lossy in some cases
 - (B) Huffman codes may not be optimal lossless codes in some cases
 - (C) In Huffman coding, no code is prefix of any other code
 - (D) All of the above
75. Which of the following expression accesses the $(i, j)^{\text{th}}$ entry of a $(M \times N)$ matrix stored in column major form?
- (A) $N(i - 1) + j$
 - (B) $M(j - 1) + i$
 - (C) $M(N - j) + j$
 - (D) $N(M - i) + j$

76. A binary tree T has n leaf nodes. The number of nodes of degree 2 in T is
- (A) $\log_2 n$
 - (B) $n - 1$
 - (C) n
 - (D) $2n$
77. The post fix form of $A\$B*C - D + E/F/(G + H)$
- (A) $AB\$C*D - EF/GH+/+$
 - (B) $AB\$C - D + EF/GH/+$
 - (C) $AB\$C + D - EF/GH-/+$
 - (D) $AB\$C - D*EF/GH+/+$
78. A complete binary tree of level 5 has how many nodes? (Assume root node at level 0)
- (A) 15
 - (B) 25
 - (C) 63
 - (D) 33
79. Which of the following operations is not $O(1)$ for an array of sorted data. You may assume that array elements are distinct?
- (A) Find the i^{th} largest element
 - (B) Delete an element
 - (C) Find the i^{th} smallest element
 - (D) All of the above
80. Which data structure is used for balancing of symbols in an expression?
- (A) Stack
 - (B) Queue
 - (C) Tree
 - (D) Graph
81. Which of the following data structures is best suited for efficient implementation of priority queue?
- (A) Array
 - (B) Linked List
 - (C) Heap
 - (D) Stack

82. The minimum number of stacks needed to implement a queue is
- (A) 3
 - (B) 1
 - (C) 2
 - (D) 4
83. Given the following prefix expression: $* + 3 + 3 \uparrow 3 + 3 \ 3 \ 3$.
What is the value of the prefix expression?
- (A) 2178
 - (B) 2199
 - (C) 2205
 - (D) 2232
84. Which normal form considered adequate for relational database design?
- (A) 2 NF
 - (B) 3 NF
 - (C) 4 NF
 - (D) BCNF
85. If every non-key attribute is only functionally dependent on the primary key, then the relation will be in
- (A) 1 NF
 - (B) 2 NF
 - (C) 3 NF
 - (D) 4 NF
86. A data model is a collection of conceptual tools for describing
- (A) Data and data relationship
 - (B) Data semantics and consistency constraints
 - (C) Data, data relationship, data semantics and consistency constraints
 - (D) None of the above

87. A trigger is
- (A) a statement that enables to start any DBMS
 - (B) a statement that is executed by the user when debugging an application program
 - (C) a condition the system tests for the validity of the database user
 - (D) a statement that is executed automatically by the system as a side effect of a modification to the database
88. Generally speaking, for a weak entity set to be meaningful it must be part of a
- (A) one-to-one relationship
 - (B) one-to-many relationship
 - (C) many-to-many relationship
 - (D) None of the above
89. Assume transaction *A* holds a shared lock *R*. If transaction *B* also requests for a shared lock on *R*, it will
- (A) result in a deadlock situation
 - (B) immediately be granted
 - (C) immediately be rejected
 - (D) be granted as soon as it is released by *A*
90. Which of the following is not usually part of the responsibilities of a database administrator?
- (A) Approving structural changes to the database
 - (B) Designing data entry screens
 - (C) Ensuring that an adequate back-up regime is in place
 - (D) Issuing accounts to users and monitoring the performance of the system
91. The way a particular view the data from the database that an application uses is
- (A) Module
 - (B) Relation
 - (C) Schema
 - (D) Subschema

92. Which of the following operations is not part of the five basic set operations in relational algebra?

- (A) Union
- (B) Division
- (C) Cartesian Product
- (D) Set Difference

93. Which of the following statements concerning relational database is true?

- (A) A foreign key field may be null
- (B) A primary key field may be null
- (C) All relations must be in at least third normal form
- (D) The primary key fields of a relation must be adjacent

94. Relation R has attributes A, B, C, D, E, F, G, H, I, J and satisfies FD'S

$ABD \rightarrow E$

$C \rightarrow J$

$AB \rightarrow G$

$CI \rightarrow I$

$B \rightarrow F$

$G \rightarrow HI$

Find the candidate key.

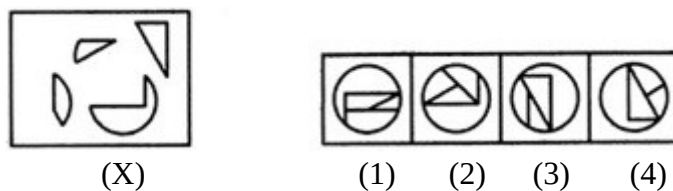
- (A) ABCI
- (B) ABCDG
- (C) ABCDE
- (D) ABCD

95. The page replacement policy that sometimes leads to more page faults when the size of the memory is increased is

- (A) FIFO
- (B) LRU
- (C) No such policy exists
- (D) None of the above

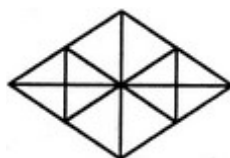
96. Kernel is
- (A) considered as the critical part of the operating system
 - (B) the software which monitors the operating system
 - (C) the set of primitive functions upon which the rest of operating system functions are built up
 - (D) None of the above
97. In a time-sharing operating system, when the time slot given to a process is completed, the process goes from the RUNNING state to the
- (A) BLOCKED state
 - (B) READY state
 - (C) SUSPENDED state
 - (D) TERMINATED state
98. Virtual memory is
- (A) part of main memory only used for swapping
 - (B) a technique to allow a program, of size more than the size of main memory, to run
 - (C) part of secondary storage used in program execution
 - (D) None of the above
99. A process executes the code
- ```
fork();
fork();
fork();
```
- The total number of child processes created is
- (A) 3
  - (B) 4
  - (C) 7
  - (D) 8
100. What problem is solved by Dijkstra banker's algorithm?
- (A) Cache coherence
  - (B) Mutual exclusion
  - (C) Deadlock recovery
  - (D) Deadlock avoidance

101. Find out which of the figures (1), (2), (3) and (4) can be formed from the pieces given in figure (X).



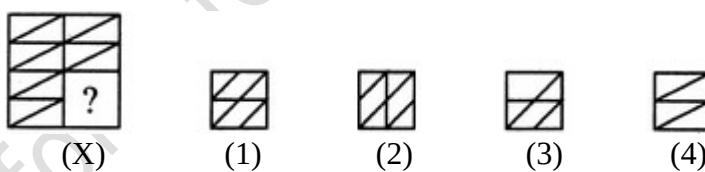
- (A) 1  
(B) 2  
(C) 3  
(D) 4

102. Find the number of triangles in the given figure.



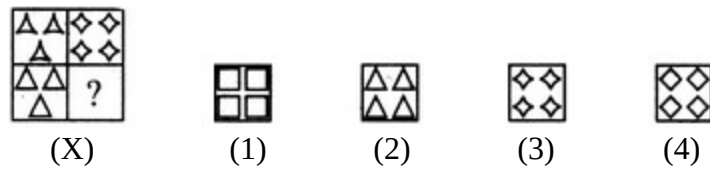
- (A) 16  
(B) 22  
(C) 28  
(D) 32

103. Identify the figure that completes the pattern.



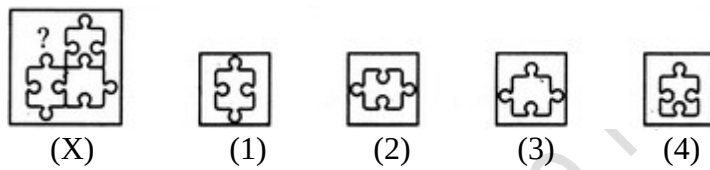
- (A) 1  
(B) 2  
(C) 3  
(D) 4

104. Identify the figure that completes the pattern.



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

105. Identify the figure that completes the pattern.



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

106. Look at this series: 22, 21, 23, 22, 24, 23, ..... What number should come next?

- (A) 22
- (B) 24
- (C) 25
- (D) 26

107. Look at this series: 664, 332, 340, 170, ....., 89. What number should fill the blank?

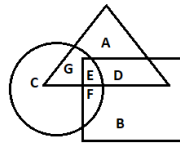
- (A) 85
- (B) 97
- (C) 109
- (D) 178

108. A person crosses a 600 m long street in 5 minutes. What is his speed in km per hour?
- (A) 3.6
  - (B) 7.2
  - (C) 8.4
  - (D) 10
109. If a person walks at 14 km/hr instead of 10 km/hr, he would have walked 20 km more. The actual distance travelled by him is:
- (A) 50 km
  - (B) 56 km
  - (C) 70 km
  - (D) 80 km
110. The angle of elevation of a ladder leaning against a wall is  $60^\circ$  and the foot of the ladder is 4.6 m away from the wall. The length of the ladder is:
- (A) 2.3 m
  - (B) 4.6 m
  - (C) 7.8 m
  - (D) 9.2 m
111. Which one of the following is not a prime number?
- (A) 31
  - (B) 61
  - (C) 71
  - (D) 91
112. The largest 4 digit number exactly divisible by 88 is:
- (A) 9944
  - (B) 9768
  - (C) 9988
  - (D) 8888

113. A number when divided by 296 leaves 75 as remainder. When the same number is divided by 37, the remainder will be:
- (A) 1
  - (B) 2
  - (C) 8
  - (D) 11
114. A number, divided by 6 leaves a remainder 3. When the square of that number is divided by 6, the remainder is:
- (A) 0
  - (B) 1
  - (C) 2
  - (D) 3
115. Find the value of  $a/(b + a/(b + a/(b - a/b)))$  where the value of  $a = 1$  and  $b = 3$
- (A)  $3/10$
  - (B)  $10/3$
  - (C)  $27/89$
  - (D)  $89/27$
116. The ratio of two numbers is 4:7 and their HCF is 6. Find the LCM.
- (A) 84
  - (B) 1008
  - (C) 132
  - (D) 168
117. The difference between a two-digit number and the number obtained by interchanging the positions of its digits is 36. What is the difference between the two digits of that number?
- (A) 3
  - (B) 4
  - (C) 5
  - (D) 6

118. Find a positive number which when increased by 17 is equal to 60 times the reciprocal of the number.
- (A) 3
  - (B) 10
  - (C) 17
  - (D) 20
119. If  $A$  is the son of  $Q$ ,  $Y$  and  $Q$  are sisters,  $Z$  is the mother of  $Y$ ,  $P$  is the son of  $Z$ , then which of the following statements is correct?
- (A)  $P$  is the maternal uncle of  $A$
  - (B)  $A$  and  $P$  are cousins
  - (C)  $P$  and  $Y$  are sisters
  - (D)  $Z$  and  $Y$  are parents of  $A$
120. Looking at a photograph, Ram says "His mother is the wife of my father's son. I don't have any brothers or sisters". How is the person in the photograph related to Ram?
- (A) His cousin
  - (B) His son
  - (C) His father
  - (D) His uncle
121. Fill in the next pattern
- ZA1, 3YB, C5X, WD7,.....
- (A) V9E
  - (B) VE9
  - (C) EV9
  - (D) 9VE

**Directions:** Study the diagram below and answer the questions. Triangle represents doctors, circle represents players and rectangle represents artists.



122. What does letter D represent?

- (A) Doctors who are players
- (B) Artists who are doctors
- (C) Doctors who are not artists
- (D) Players who are not doctors

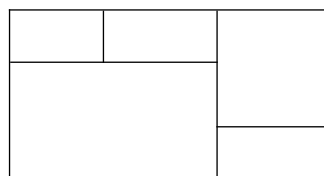
123. Players who are doctors but not artist is represented by

- (A) A
- (B) E
- (C) G
- (D) F

124. Which letter represents artists who are neither doctor nor player?

- (A) A
- (B) G
- (C) F
- (D) B

125. How many rectangles are there in the figure?

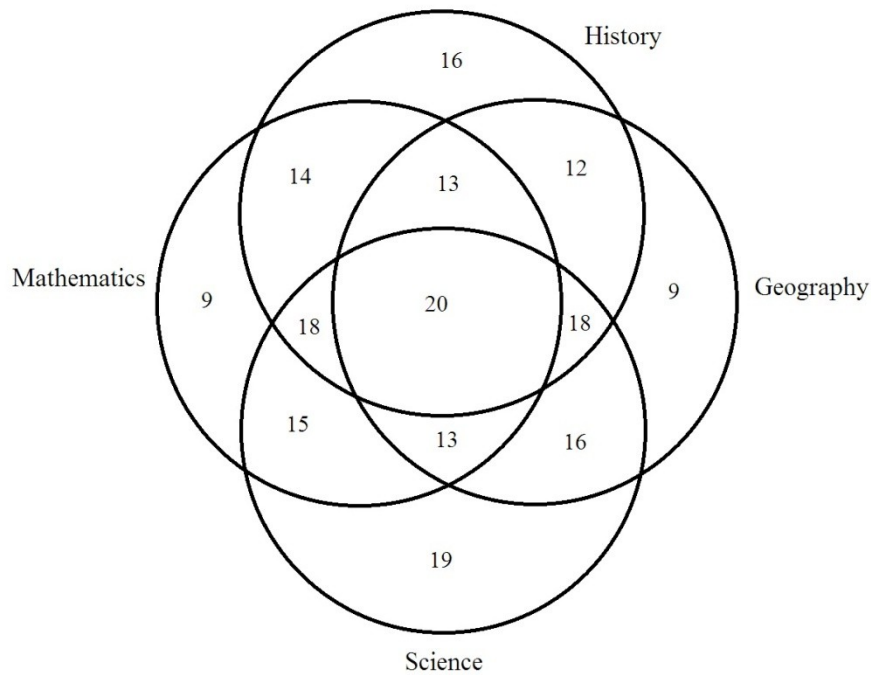


- (A) 6
- (B) 7
- (C) 8
- (D) 9

126. Find the term which do not fit into the series G4T, J10R, M20P, P43N, S90L.

- (A) G4T
- (B) J10R
- (C) M20P
- (D) S90L

**Directions:** Use the following figure to answer questions.



127. The number of students who took any three of the above subjects was

- (A) 62
- (B) 63
- (C) 64
- (D) 66

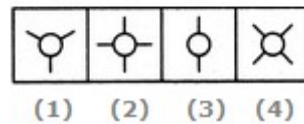
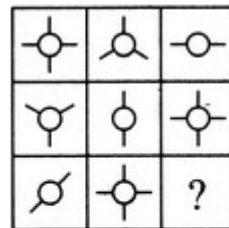
128. The number of students who took both History and Geography among other subjects was

- (A) 62
- (B) 63
- (C) 65
- (D) 66

129. Which subject was taken by the largest number of students?

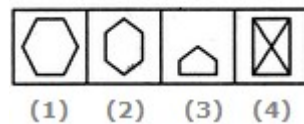
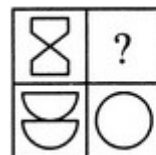
- (A) Mathematics
- (B) Science
- (C) Geography
- (D) History

130. Select a suitable figure from the four alternatives that would complete the figure matrix.



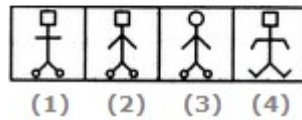
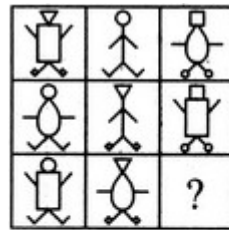
- (A) 1
- (B) 2
- (C) 3
- (D) 4

131. Select a suitable figure from the four alternatives that would complete the figure matrix.



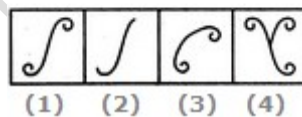
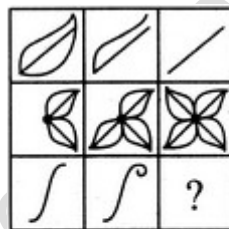
- (A) 1
- (B) 2
- (C) 3
- (D) 4

132. Select a suitable figure from the four alternatives that would complete the figure matrix.



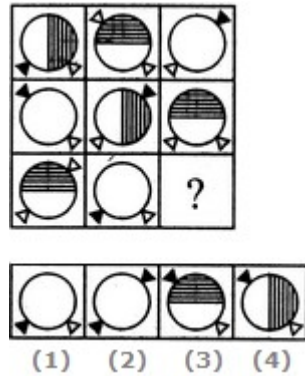
- (A) 1  
(B) 2  
(C) 3  
(D) 4

133. Select a suitable figure from the four alternatives that would complete the figure matrix.



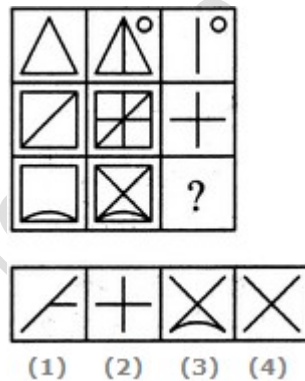
- (A) 1  
(B) 2  
(C) 3  
(D) 4

134. Select a suitable figure from the four alternatives that would complete the figure matrix.



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

135. Select a suitable figure from the four alternatives that would complete the figure matrix.



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

136. What is the missing number in the following sequence?

2, 12, 60, 240, 720, 1440, ....

- (A) 2880  
(B) 1440  
(C) 720  
(D) 0

137. Choose the missing number in the series: 9, 7, 12, 12, 15, 17, 18, 22, ?

- (A) 27
- (B) 21
- (C) 22
- (D) 24

138. Which one will replace the question mark in the given series?

1, 9, 25, 49, ?, 121

- (A) 100
- (B) 91
- (C) 64
- (D) 81

139. Which one will replace the question mark in the given series.

6, 11, 21, 36, 56, ?

- (A) 91
- (B) 81
- (C) 51
- (D) 42

140. Find the missing number in the series. 8, 27, 125, ....., 1331.

- (A) 512
- (B) 216
- (C) 343
- (D) 169

141. Find the missing number in the series. 1, 8, 4, 27, 9, ?

- (A) 8
- (B) 9
- (C) 64
- (D) 16

142. Find the missing values in the series. 3, 6, 8, 16, 18, ?

- (A) 28
- (B) 36
- (C) 54
- (D) 34

143. A man walks 1 KM to east and then he turns to south and walks a distance of 5 KM. Again, he turns to east and walks 2 KM. After this he turns to North and walks 9 KM. now how far is he from his starting point?

- (A) 3
- (B) 4
- (C) 5
- (D) 7

144. The product of the complex numbers  $(4, 3)$  and  $(-7, 6)$  is?

- (A)  $(-46, 3)$
- (B)  $(46, -3)$
- (C)  $(46, 3)$
- (D)  $(3, 46)$

145. The value of  $\log_2 16$  is:

- (A)  $\frac{1}{8}$
- (B) 4
- (C) 8
- (D) 16

146. If  $\log_x y = 100$  and  $\log_2 x = 10$ , then the value of  $y$  is:

- (A)  $2^{10}$
- (B)  $2^{100}$
- (C)  $2^{1000}$
- (D)  $2^{10000}$

147. A They fled to the higher ground  
B Soon the floods retired and the villagers were able to return  
C The river overflowed its banks  
D The rain fell steadily for several days  
E The terrified villagers abandoned their homes

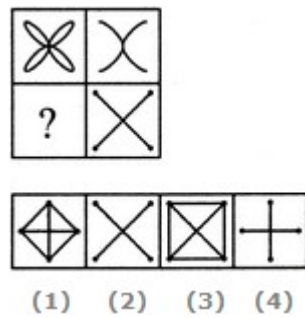
The proper sequence should be:

- (A) CEBAD
- (B) DEBCA
- (C) DCEAB
- (D) EDABC

148. The next term in the series ABD, DGK HMS MTB SBL ..... is

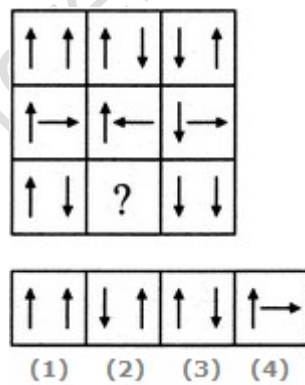
- (A) ZKU
- (B) ZCA
- (C) ZKW
- (D) KZU

149. Select a suitable figure from the four alternatives that would complete the figure matrix.



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

150. Select a suitable figure from the four alternatives that would complete the figure matrix.



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

**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     | A   | 61     | A   | 91     | D   | 121    | D   |
| 2      | A   | 32     | A   | 62     | C   | 92     | B   | 122    | B   |
| 3      | A   | 33     | A   | 63     | D   | 93     | A   | 123    | C   |
| 4      | C   | 34     | C   | 64     | D   | 94     | D   | 124    | D   |
| 5      | C   | 35     | A   | 65     | A   | 95     | A   | 125    | C   |
| 6      | C   | 36     | D   | 66     | C   | 96     | C   | 126    | A   |
| 7      | A   | 37     | C   | 67     | A   | 97     | B   | 127    | A   |
| 8      | A   | 38     | A   | 68     | D   | 98     | B   | 128    | B   |
| 9      | C   | 39     | C   | 69     | B   | 99     | C   | 129    | B   |
| 10     | B   | 40     | A   | 70     | A   | 100    | D   | 130    | A   |
| 11     | A   | 41     | C   | 71     | A   | 101    | C   | 131    | B   |
| 12     | D   | 42     | B   | 72     | B   | 102    | C   | 132    | B   |
| 13     | A   | 43     | B   | 73     | C   | 103    | D   | 133    | A   |
| 14     | A   | 44     | D   | 74     | C   | 104    | D   | 134    | D   |
| 15     | A   | 45     | C   | 75     | B   | 105    | B   | 135    | D   |
| 16     | A   | 46     | D   | 76     | B   | 106    | C   | 136    | B   |
| 17     | C   | 47     | D   | 77     | A   | 107    | D   | 137    | B   |
| 18     | B   | 48     | C   | 78     | C   | 108    | B   | 138    | D   |
| 19     | C   | 49     | B   | 79     | B   | 109    | A   | 139    | B   |
| 20     | B   | 50     | B   | 80     | A   | 110    | D   | 140    | C   |
| 21     | B   | 51     | D   | 81     | C   | 111    | D   | 141    | C   |
| 22     | D   | 52     | D   | 82     | C   | 112    | A   | 142    | B   |
| 23     | C   | 53     | B   | 83     | C   | 113    | A   | 143    | C   |
| 24     | A   | 54     | B   | 84     | B   | 114    | D   | 144    | A   |
| 25     | B   | 55     | D   | 85     | C   | 115    | C   | 145    | B   |
| 26     | D   | 56     | A   | 86     | C   | 116    | D   | 146    | C   |
| 27     | D   | 57     | B   | 87     | D   | 117    | B   | 147    | C   |
| 28     | C   | 58     | C   | 88     | B   | 118    | A   | 148    | C   |
| 29     | C   | 59     | C   | 89     | B   | 119    | A   | 149    | C   |
| 30     | B   | 60     | C   | 90     | B   | 120    | B   | 150    | A   |