Department of Computers

GDC Peddapalli

MCQs in c language

1. Which of the following language is the predecessor to C Programming Language?
a) A
b) B
c) BCPL
d) C++

Ans: c

2. C programming language was developed by
a) Dennis Ritchie
b) Ken Thompson
c) Bill Gates
d) Peter Norton

Ans: a

3. C was developed in the year ___
a) 1970
b) 1972
c) 1976
d) 1980

Ans: b

4. C is a ___ language
a) High Level
b) Low Level
c) Middle Level
d) Machine Level

Ans: c

5. C language is available for which of the following Operating Systems?
a) DOS
b) Windows
c) Unix
d) All of these

Ans: d

6. Which of the following symbol is used to denote a pre-processor statement?
a) !
b) #
c) ~
d) ;

Ans: b

7. Which of the following is a Scalar Data type
a) Float
b) Union

c) Array
d) Pointer

Ans: a

8. Which of the following are tokens in C?
a) Keywords
b) Variables
c) Constants
d) All of the above

Ans: d

9. What is the valid range of numbers for int type of data?
a) 0 to 256
b) -32768 to +32767
c) -65536 to +65536
d) No specific range

Ans: b

10. Which symbol is used as a statement terminator in C?
a) !
b) #
c) ~
d) ;

Ans: d

11. Which escape character can be used to begin a new line in C?
a) \a
b) \b
c) \m
d) \n

Ans: d

12. Which escape character can be used to beep from speaker in C?
a) \a
b) \b
c) \m
d) \n

Ans: a

13. Character constants should be enclosed between ___
a) Single quotes
b) Double quotes
c) Both a and b

d) none of these

Ans: a

14. String constants should be enclosed between ___
a) Single quotes
b) Double quotes
c) Both a and b
d) None of these

Ans: b

15. Which of the following is invalid?
a) ‘’
b) “”
c) ‘a’
d) ‘abc’Ans: d

16. The maximum length of a variable in C is ___
a) 8
b) 16
c) 32
d) 64

Ans: a

17. What will be the maximum size of a float variable?
a) 1 byte
b) 2 bytes
c) 4 bytes
d) 8 bytes

Ans: c

18. What will be the maximum size of a double variable?
a) 1 byte
b) 4 bytes
c) 8 bytes
d) 16 bytes

Ans: c

19. A declaration float a,b; occupies ___ of memory
a) 1 byte
b) 4 bytes
c) 8 bytes
d) 16 bytes

Ans: c

20. The size of a String variable is
a) 1 byte
b) 8 bytes
c) 16 bytes
d) None of these

Ans: d

21. Which of the following is an example of compounded assignment statement?
a) a=5
b) a+=5
c) a=b=c
d) a=b

Ans: b

22. The operator && is an example for ___ operator.
a) Assignment
b) Increment

c) Logical
d) Rational

Ans: c

23. The operator & is used for
a) Bitwise AND
b) Bitwise OR

c) Logical AND
d) Logical OR

Ans: a

24. The operator / can be applied to
a) integer values
b) float values
c) double values
d) All of these

Ans: b

25. The equality operator is represented by
a) :=
b) .EQ.
c) =
d) ==

Ans: d

26. Operators have hierarchy. It is useful to know which operator
a) is most important
b) is used first
c) is faster
d) operates on large numbers

Ans: b

27. The bitwise AND operator is used for
a) Masking
b) Comparison
c) Division
d) Shifting bits

Ans: a

28. The bitwise OR operator is used to
a) set the desired bits to 1
b) set the desired bits to 0
c) divide numbers
d) multiply numbers

Ans: a

29. Which of the following operator has the highest precedence?
a) *
b) ==
c) =>
d) +

Ans: d

30. The associativity of ! operator is
a) Right to Left
b) Left to Right
c) (a) for Arithmetic and (b) for Relational
d) (a) for Relational and (b) for Arithmetic Ans: a

31. Which operator has the lowest priority?
a) ++
b) %
c) +
d) ||

Ans: d

32. Which operator has the highest priority?
a) ++
b) %
c) +
d) ||

Ans: a

33. Operators have precedence. Precedence determines which operator is
a) faster
b) takes less memory
c) evaluated first
d) takes no arguments

Ans: c

34. Integer Division results in
a) Rounding the fractional part
b) Truncating the fractional part
c) Floating value
d) An Error is generated

Ans: b

35. Which of the following is a ternary operator?
a) ?:
b) *
c) sizeof
d) ^

Ans: a

36. What will be the output of the expression 11 ^ 5?
a) 5
b) 6
c) 11
d) None of these

Ans: d

37. The type cast operator is
a) (type)
b) cast()

c) (;;)
d) // " "
Ans: a

38. Explicit type conversion is known as
a) Casting
b) Conversion
c) Disjunction
d) Separation Ans: a

39. The operator + in a+=4 means
a) a=a+4
b) a+4=a
c) a=4
d) a=4+4

Ans: a

40. p++ executes faster than p+1 because
a) p uses registers
b) p++ is a single instruction
c) ++ is faster than +
d) None of these

Ans: b

41. Which of the following statements is true?
a) C Library functions provide I/O facilities
b) C inherent I/O facilities
c) C doesn't have I/O facilities
d) Both (a) and (c)

Ans: a

42. Header files in C contain
a) Compiler commands
b) Library functions
c) Header information of C programs
d) Operators for files

Ans: b

43. Which pair of functions below are used for single character I/O.
a) Getchar() and putchar()
b) Scanf() and printf()
c) Input() and output()
d) None of these

Ans: a

44. The printf() function retunes which value when an error occurs?
a) Positive value
b) Zero
c) Negative value
d) None of these

Ans: c

45. Identify the wrong statement
a) putchar(65)

b) putchar('x')
c) putchar("x")
d) putchar('\n')

Ans: c

46. Which of the following is charecter oriented console I/O function?
a) getchar() and putchar()
b) gets() and puts()

c) scanf() and printf()
d) fgets() and fputs()

Ans: a

47. The output of printf("%u", -1) is
a) -1
b) minimum int value
c) maxium int value
d) Error message

Ans: c

48. An Ampersand before the name of a variable denotes
a) Actual Value
b) Variable Name
c) Address
d) Data Type

Ans: c

49. Symbolic constants can be defined using
a) # define
b) const
c) symbols
d) None of these

Ans: b

50. Null character is represented by
a) \n
b) \0
c) \o
d) \e

Ans: b

MULTIPLE CHOICE QUESTIONS OF C++

1. The Packing of _____ into single component is know as encapsulation.
A. data
B. function
C. data and functions
D. none

Answer: Option C

2. Which of the following converts bool values to text(" true or false")?
A.ios:: boolalpha
B.ios:: showpos
C.ios:: stdio
D.none

Answer: Option A

3. Which of the following skip white space on input?
A.ios:: boolalpha
B.ios:: showpos
C.ios:: skipus
D.none

Answer: Option C

4. Which of the following omits white space on input?
A.skipws
B.noskipws
C.ios:: skipus
D. none

Answer: Option A

5. The void type is also called as ————————?
A. null datatype
B. empty datatype
C. zero datatype
D. none

Answer: Option B

6. The keywords signed, unsigned, short and long are called————-?
A.Type modifiers
B. type casting
C.type conversion
D. none

Answer:OptionA

7. The values of variables are to be converted from one type to another type is called_____?
A. Type modifiers
B. type casting
C.type conversion
D. none

Answer:Option B

8. The operator ::* is called _____?
A.pointer to member decelerator
B.insertion operator

C.extraction operator
D.none

Answer:Option A

9. The operator ->* is called _____?
A. deference pointers to pointers to class members
B.insertion operator
C.extraction operator
D.none

Answer: Option A

10. The operator .* is called_____?
A.deference pointers to class members
B.insertion operator
C. extraction operator
D.none

Answer: Option A

11. The operator “,” is used to _____?
A .equal to
B. Evaluate
C.shift left
D. none

Answer:Option B

12. The new, operator, inline, friend are called_____?
A. keywords
B. operator
C.method
D. functions

Answer: Option A

13. The asm, catch, class are called _____?
A.keywords
B.operator
C.method
D. functions
Answer:Option A

14._____loop will be executed at least once even if the condition is false initially
A.do-while
B.while
C.for
D.none

Answer:Option A

15. This statement passes control anywhere in the program without least care for any condition is called _____ statement?
A.goto
B.jump
C. break
D.none

Answer:Option A

16. The _____keyword makes variable value stable.
A.const
B.constant

C.temp
D.none

Answer: Option A

17. When a function is declared as _____, the compiler copies the code of the function in the calling function that is function body is inserted in place of function call during compilation.
A.inline
B.outline
C. function overloading
D.none

Answer: Option A

18. Defining multiple functions with same names is known as _____
A.function overloading
B.function polymorphism
C.function overriding
D.both a & b

Answer: Option D

19. The functions ceil and ceill round up the given_____ number.
A. float
B. char
C. double
D. none

Answer: Option A

20. Inline mechanisms increases execution performance in terms of _____.
A. speed
B. memory
C. accuracy
D. none

Answer: Option A

21. Which of the following statement is incorrect?
A. Friend keyword can be used in the class to allow access to another class.
B. Friend keyword can be used for a function in the public section of a class.
C. Friend keyword can be used for a function in the private section of a class.
D. Friend keyword can be used on *main()* .
Answer: Option D

22. Which of the following statement is correct regarding destructor of base class ?
A. Destructor of base class should always be static.
B. Destructor of base class should always be virtual.
C. Destructor of base class should not be virtual.
D. Destructor of base class should always be private.

Answer: Option B

23. Which of the following two entities (reading from Left to Right) can be connected by the dot operator ?
A. A class member and a class object.
B. A class object and a class.
C. A class and a member of that class.
D. A class object and a member of that class.

Answer: Option D

24. How can we make a class abstract?
A. By making all member functions constant.
B. By making at least one member function as pure virtual function.

C. By declaring it abstract using the static keyword.
D. By declaring it abstract using virtual keyword.

Answer: Option B

25. Which of the following statement is correct when a class is inherited publicly?
A. Public members of the base class become protected members of derived class.
B. Public members of the base class become private members of derived class.
C. Private members of the base class become protected members of derived class.
D. Public members of the base class become public members of derived class.

Answer: Option D

26. Which of the following statement is correct about the constructors and destructors?
A. Destructors can take arguments but constructors can not.
B. Constructors can take arguments but destructors can not
C. Destructors can be overloaded but constructors can not be overloaded.
D. Constructors and destructors can both return a value.

Answer: Option B

27. Which of these access specifiers is used in class definition by default ?
A. Protected
B. Public
C. Private
D. Friend

Answer: Option C

28. Which of the following statement is correct with regard to the use of keyword friend inside a class ?
A. A private member can be declared as a friend.
B. A class may be declared as a friend.
C. An object may be declared as a friend.
D. We can use friend keyword as a class name.

Answer: Option B

29. Which of these keywords is used to control access to a class member ?
A. Default
B. Break
C. Protected
D. Asm

Answer: Option C

30. Which of the following can access private data members or member functions of a class ?
A. Any function in the program.
B. All global functions in the program.
C. Any member function of that class.
D. Only public member functions of that class.

Answer: Option C

31. Which of the following type of data member can be shared by all instances of its class?
A. Public
B. Inherited
C. Static
D. Friend

Answer: Option C

32. What is also termed as an instance of a class?
A. Friend Function
B. Object

C. Member Function
D. Member Variables

Answer: Option B

33. Constructor is executed when _____ .
A. an object is created
B. an object is used
C. a class is declared
D. an object goes out of scope.

Answer: Option A

34. Which of these statements is true about virtual base classes ?
A. It is used to provide multiple inheritance.
B. It is used to avoid multiple copies of base class in derived class.
C. It is used to allow multiple copies of base class in a derived class.
D. It allows private members of the base class to be inherited in the derived class.

Answer: Option B

35. _____ can have default and can be overloaded.
A. constructor
B. destructor
C. Friend Function
D. None

Answer: Option A

36. Destructor can be _____ but constructors can not.
A. Virtual
B. Friend
C. Inline
D. None

Answer: Option A

37. Constructor is arguments are called _____
A. Parametrized constructor
B. default constructor
C. Zero- constructor
D. None

Answer: Option A

38. The opearator ++,– and – are called _____ operators.
A. unary
B. binary
C. arithmetic
D. none

Answer: Option A

39. Overloading with a _____ parameter is called binary operator overloading.
A. single
B. double
C. three
D. none

Answer: Option A

40. ?:,::,sizeof(),”.” Are called as _____ operators.
A. overloadable
B. non-overloadable

C. default
D. none

Answer: Option B

41. (),= Are called non-overloadable with _____ function.
A. friend
B. inline
C. default
D. none

Answer: Option A

42. The procedure of creating a new class from one or more existing classes is termed as _____.
A. Inheritance
B. Polymorphism
C. Encapsulation
D. None

Answer: Option A

43. The combination of one or more types of inheritance _____
A. Hybrid
B. multipath
C. multilevel
D. none

Answer: Option A

44. To overcome the ambiguity occurred due to multipath inheritance, c++ provides the keyword _____.
A. Virtual
B. friend
C. default
D. none

Answer: Option A

45. A _____ is a memory variable that stores memory address.
A. pointer
B. array
C. inheritance
D. none

Answer: Option A

46. The _____ operator(*) is called as deference operator.
A. indirection
B. direction
C. bidirection
D. none

Answer: Option A

47. When a pointer points to an unallocated memory location or to data value whose memory is deallocated, such a pointer is called _____ pointer .
A. arithmetic
B. logic
C. wild
D. none

Answer: Option C

48. _____ is a collection of elements of similar data types in which each element is unique and located in separate memory location.

A. pointer
B. array
C. attributes
D. none

Answer: Option B

49. The _____ operator not only creates an object but also allocates memory.
A. new
B. old
C. delete
D. none

Answer: Option A

50. The _____ operator not only destroys object but also releases allocated memory.
A. new
B. delete
C. old
D. none

Answer: Option B

Data Structure MCQ

1) How can we describe an array in the best possible way?

a. The Array shows a hierarchical structure.
b. Arrays are immutable.
c. Container that stores the elements of similar types
d. The Array is not a data structure

Answer :C

---

2) Which of the following is the correct way of declaring an array?

a. int javatpoint[10];
b. int javatpoint;
c. javatpoint{20};
d. array javatpoint[10];

Answer :A

---

3) How can we initialize an array in C language?

a. int arr[2]=(10, 20)
b. int arr(2)={10, 20}
c. int arr[2] = {10, 20}
d. int arr(2) = (10, 20)

Answer:C

---

4) Which of the following is the advantage of the array data structure?

a. Elements of mixed data types can be stored.
b. Easier to access the elements in an array
c. Index of the first element starts from 1.
d. Elements of an array cannot be sorted

Answer :B

---

5) Which of the following highly uses the concept of an array?

a. Binary Search tree
b. Caching
c. Spatial locality
d. Scheduling of Processes

Answer :B

---

6) Which of the following is the disadvantage of the array?

a. Stack and Queue data structures can be implemented through an array.

b. Index of the first element in an array can be negative

c. Wastage of memory if the elements inserted in an array are lesser than the allocated size

d. Elements can be accessed sequentially.

Answer :C

---

7) What is the output of the below code?

```
#include <stdio.h>
int main()
{
  int arr[5]={10,20,30,40,50};
  printf("%d", arr[5]);

   return 0;
}
```

a. Garbage value

b. 10

c. 50

d. None of the above

Answer :A

---

8) Which one of the following is the size of int arr[9] assuming that int is of 4 bytes?

a. 9

b. 36

c. 35

d. None of the above

Answer:B

---

9) Which one of the following is the process of inserting an element in the stack?

a. Insert

b. Add

c. Push

d. None of the above

Answer:C

---

10) When the user tries to delete the element from the empty stack then the condition is said to be a _____

a. Underflow

b. Garbage collection

c. Overflow

d. None of the above

Answer :C

---

11) If the size of the stack is 10 and we try to add the 11th element in the stack then the condition is known as___

a. Underflow
b. Garbage collection
c. Overflow
d. None of the above

Answer :C

---

12) Which one of the following is not the application of the stack data structure

a. String reversal
b. Recursion
c. Backtracking
d. Asynchronous data transfer

Answer :D

---

13) Which data structure is mainly used for implementing the recursive algorithm?

a. Queue
b. Stack
c. Binary tree
d. Linked list

Answer :D

---

14) Which data structure is required to convert the infix to prefix notation?

a. Stack
b. Linked list
c. Binary tree
d. Queue

Answer:A

---

15) Which of the following is the infix expression?

a. A+B*C
b. +A*BC
c. ABC+*
d. None of the above

Answer :A

---

16) Which of the following is the prefix form of A+B*C?

a. A+(BC*)
b. +AB*C
c. ABC+*
d. +A*BC

Answer:D

---

17) Which of the following is not the correct statement for a stack data structure?

a. Arrays can be used to implement the stack
b. Stack follows FIFO
c. Elements are stored in a sequential manner
d. Top of the stack contains the last inserted element

Answer :B

---

18) If the elements '1', '2', '3' and '4' are added in a stack, so what would be the order for the removal?

a. 1234
b. 2134
c. 4321
d. None of the above

Answer :C

---

19) What is the outcome of the prefix expression +, -, *, 3, 2, /, 8, 4, 1?

a. 12
b. 11
c. 5
d. 4

Answer :C

---

20) The minimum number of stacks required to implement a stack is __

a. 1
b. 3
c. 2
d. 5

Answer :C

---

21) Which one of the following node is considered the top of the stack if the stack is implemented using the linked list?

a. First node
b. Second node

c. Last node

d. None of the above

Answer:A

---

22) Consider the following stack implemented using stack.

```
#define SIZE 11
struct STACK
{
  int arr[SIZE];
  int top=-1;
}
```

What would be the maximum value of the top that does not cause the overflow of the stack?

a. 8

b. 9

c. 11

d. 10

Answer :D

---

23) What is another name for the circular queue among the following options?

a. Square buffer

b. Rectangle buffer

c. Ring buffer

d. None of the above

Answer: C

---

24) If the elements '1', '2', '3' and '4' are inserted in a queue, what would be order for the removal?

a. 1234

b. 4321

c. 3241

d. None of the above

Answer :A

---

25) A list of elements in which enqueue operation takes place from one end, and dequeue operation takes place from one end is__

a. Binary tree

b. Stack

c. Queue

d. Linked list

Answer :C

26) Which of the following principle does Queue use?

a. LIFO principle
b. FIFO principle
c. Linear tree
d. Ordered array

Answer: B

---

27) Which one of the following is not the type of the Queue?

a. Linear Queue
b. Circular Queue
c. Double ended Queue
d. Single ended Queue

Answer :D

---

28) Which one of the following is the overflow condition if linear queue is implemented using an array with a size MAX_SIZE?

a. rear = front
b. rear = front+1
c. rear=MAX_SIZE -1
d. rear = MAX_SIZE

Answer :C

---

29) Which one of the following is the overflow condition if a circular queue is implemented using array having size MAX?

a. rear= MAX-1
b. rear=MAX
c. front=(rear+1) mod max
d. None of the above

Answer :C

---

30) The time complexity of enqueue operation in Queue is __

a. O(1)
b. O(n)
c. O(logn)
d. O(nlogn)

Answer :A

---

31) Which of the following that determines the need for the Circular Queue?

a. Avoid wastage of memory
b. Access the Queue using priority
c. Follows the FIFO principle
d. None of the above

Answer :A

---

32) Which one of the following is the correct way to increment the rear end in a circular queue?

a. rear =rear+1
b. (rear+1) % max
c. (rear % max) + 1
d. None of the above

Answer:B

---

33) Consider the following code.

```
1.  int fun()
2.  {
3.    if(isEmpty())
4.    {
5.      return -10;
6.    }
7.   else
8.   {
9.     int n;
10.    n= q[front];
11.    front++;
12.    return n;
13.  }
14.
15. }
```

Which operation does the above code perform?

a. Enqueue
b. Dequeue
c. Return the front element
d. Both b and c

Answer :D

---

34) In the linked list implementation of queue, where will the new element be inserted?

a. At the middle position of the linked list
b. At the head position of the linked list
c. At the tail position of the linked list
d. None of the above

Answer :C

---

35) How many Queues are required to implement a Stack?

a. 3
b. 2
c. 1
d. 4

Answer:B

---

36) Which one of the following is not the application of the Queue data structure?

a. Resource shared between various systems
b. Data is transferred asynchronously
c. Load balancing
d. Balancing of symbols

Answer :D

---

37) Which of the following option is true if implementation of Queue is from the linked list?

a. In enqueue operation, new nodes are inserted from the beginning and in dequeue operation, nodes are removed from the end.
b. In enqueue operation, new nodes are inserted from the end and in dequeue operation, nodes are deleted from the beginning.
c. In enqueue operation, new nodes are inserted from the end and in dequeue operation, nodes are deleted from the end.
d. Both a and b

Answer :D

---

38) The necessary condition to be checked before deletion from the Queue is__

a. Overflow
b. Underflow
c. Rear value
d. Front value

Answer: B

---

39) Which data structure is the best for implementing a priority queue?

a. Stack
b. Linked list
c. Array
d. Heap

Answer :D

---

40) Which of the following principle is used if two elements in the priority queue have the same priority?

a. LIFO

b. FIFO

c. Linear tree

d. None of the above

Answer :B

---

41) Which of the following statement is not true regarding the priority queue?

a. Processes with different priority can be easily handled

b. Easy to implement

c. Deletion is easier

d. None of the above

Answer:C

---

42) A linear data structure in which insertion and deletion operations can be performed from both the ends is___

a. Queue

b. Dequeue

c. Priority queue

d. Circular queue

Answer:B

---

43) In the Deque implementation using singly linked list, what would be the time complexity of deleting an element from the rear end?

a. O(1)

b. $O(n^2)$

c. O(n)

d. O(nlogn)

Answer :C

---

44) Which of the following data structure allows you to insert the elements from both the ends while deletion from only one end?

a. Input-restricted queue

b. Output-restricted queue

c. Priority queue

d. None of the above

Answer :B

---

45) What would be the output after performing the following operations in a Deque?

1. Insertfront(10);
2. Insertfront(20);
3. Insertrear(30);

4. Insertrear(40);
5. Deletefront();
6. Insertfront(50);
7. Deleterear();
8. Display();

    a. 10, 20, 30
    b. 50, 10, 30
    c. 40, 20, 30
    d. None of the above

Answer :B

---

46) In a circular queue implementation using array of size 5, the array index starts with 0 where front and rear values are 3 and 4 respectively. Determine the array index at which the insertion of the next element will take place.

a. 5
    b. 0
    c. 1
    d. 2

Answer :B

---

47) If circular queue is implemented using array having size MAX_SIZE in which array index starts with 0, front points to the first element in the queue, and rear points to the last element in the queue. Which one of the following conditions used to specify that the circular queue is empty?

a. Front=rear= -1
    b. Front=rear=0
    c. Front=rear+1
    d. None of the above

Answer :A

---

48) Consider the implementation of the singly linked list having the head pointer only in the representation. Which of the following operations can be performed in O(1) time?

i) Deletion of the last node in the linked list
ii) Insertion at the front of the linked list
iii) Deletion of the first node in the linked list
iv) Insertion at the end of the linked list

a. ii
    b. both ii and iii
    c. both i and iv
    d. both i and ii

Answer :B

---

49) What would be the time complexity if user tries to insert the element at the end of the linked list (head pointer is known)?

a. O(1)
    b. O(n)

c. O(logn)

d. O(nlogn)

Answer :B

---

50) Which of the following is the time complexity to search an element in the linked list?

a. O(1)

b. O(n)

c. O(logn)

d. O(nlogn)

Answer :B

Java Multiple Choice Questions

1) Which of the following option leads to the portability and security of Java?

a. Bytecode is executed by JVM
b. The applet makes the Java code secure and portable
c. Use of exception handling
d. Dynamic binding between objects

ANSWER : a

---

2) Which of the following is not a Java features?

a. Dynamic
b. Architecture Neutral
c. Use of pointers
d. Object-oriented

ANSWER:c

---

3) What should be the execution order, if a class has a method, static block, instance block, and constructor, as shown below?

```
public class First_C {
            public void myMethod()
   {
   System.out.println("Method");
   }

   {
   System.out.println(" Instance Block");
   }

   public void First_C()
   {
   System.out.println("Constructor ");
   }
   static {
      System.out.println("static block");
   }
   public static void main(String[] args) {
   First_C c = new First_C();
   c.First_C();
   c.myMethod();
  }
}
```

a. Instance block, method, static block, and constructor
b. Method, constructor, instance block, and static block

c. Static block, method, instance block, and constructor

d. Static block, instance block, constructor, and method

Answer:d

---

4) What will be the output of the following program?

```
public class MyFirst {
    public static void main(String[] args) {
      MyFirst obj = new MyFirst(n);
 }
 static int a = 10;
 static int n;
 int b = 5;
 int c;
 public MyFirst(int m) {
     System.out.println(a + ", " + b + ", " + c + ", " + n + ", " + m);
  }
// Instance Block
  {
    b = 30;
    n = 20;
  }
// Static Block
  static
{
       a = 60;
    }
 }
```

a. 10, 5, 0, 20, 0

b. 10, 30, 20

c. 60, 5, 0, 20

d. 60, 30, 0, 20, 0

Answer:d

---

5) The \u0021 article referred to as a

a. Unicode escape sequence

b. Octal escape

c. Hexadecimal

d. Line feed

Answer:a

---

6) _____ is used to find and fix bugs in the Java programs.

a. JVM

b. JRE

c. JDK

d. JDB

Answer:d

---

7) Which of the following is a valid declaration of a char?

a. char ch = '\utea';
b. char ca = 'tea';
c. char cr = \u0223;
d. char cc = '\itea';

Answer:a

---

8) What is the return type of the hashCode() method in the Object class?

a. Object
b. int
c. long
d. void

Answer:b

---

9) Which of the following is a valid long literal?

a. ABH8097
b. L990023
c. 904423
d. 0xnf029L

Answer :d

---

10) What does the expression float a = 35 / 0 return?

a. 0
b. Not a Number
c. Infinity
d. Run time exception

Answer :c

---

11) Evaluate the following Java expression, if x=3, y=5, and z=10:

++z + y - y + z + x++

a. 24
b. 23
c. 20

d. 25

Answer :a

12) What will be the output of the following program?

```
public class Test {
public static void main(String[] args) {
   int count = 1;
   while (count <= 15) {
   System.out.println(count % 2 == 1 ? "***" : "+++++");
   ++count;
      }     // end while
   }      // end main
}
```

a. 15 times ***
b. 15 times +++++
c. 8 times *** and 7 times +++++
d. Both will print only once

Answer :c

---

13) Which of the following tool is used to generate API documentation in HTML format from doc comments in source code?

a. javap tool
b. javaw command
c. Javadoc tool
d. javah command

Answer :c

---

14) Which of the following creates a List of 3 visible items and multiple selections abled?

a. new List(false, 3)
b. new List(3, true)
c. new List(true, 3)
d. new List(3, false)

Answer :b

---

15) Which of the following for loop declaration is not valid?

a. for (int i = 99; i >= 0; i / 9)
b. for (int i = 7; i <= 77; i += 7)
c. for (int i = 20; i >= 2; - -i)
d. for (int i = 2; i <= 20; i = 2* i)

Answer :a

16) Which method of the Class.class is used to determine the name of a class represented by the class object as a String?

a. getClass()
b. intern()
c. getName()
d. toString()

Answer :c

---

17) In which process, a local variable has the same name as one of the instance variables?

a. Serialization
b. Variable Shadowing
c. Abstraction
d. Multi-threading

Answer:b

---

18) Which of the following is true about the anonymous inner class?

a. It has only methods
b. Objects can't be created
c. It has a fixed class name
d. It has no class name

Answer :d

---

19) Which package contains the Random class?

a. java.util package
b. java.lang package
c. java.awt package
d. java.io package

Answer:a

---

20) What do you mean by nameless objects?

a. An object created by using the new keyword.
b. An object of a superclass created in the subclass.
c. An object without having any name but having a reference.
d. An object that has no reference.

Answer :d

21) An interface with no fields or methods is known as a _____.

a. Runnable Interface
b. Marker Interface
c. Abstract Interface
d. CharSequence Interface

Answer :b

---

22) Which of the following is an immediate subclass of the Panel class?

a. Applet class
b. Window class
c. Frame class
d. Dialog class

Answer :a

---

23) Which option is false about the *final* keyword?

a. A *final* method cannot be overridden in its subclasses.
b. A *final* class cannot be extended.
c. A *final* class cannot extend other classes.
d. A *final* method can be inherited.

Answer :c

---

24) Which of these classes are the direct subclasses of the **Throwable** class?

a. RuntimeException and Error class
b. Exception and VirtualMachineError class
c. Error and Exception class
d. IOException and VirtualMachineError class

Answer :c

---

25) What do you mean by *chained exceptions* in Java?

a. Exceptions occurred by the VirtualMachineError
b. An exception caused by other exceptions
c. Exceptions occur in chains with discarding the debugging information
d. None of the above

Answer :b

---

26) In which memory a String is stored, when we create a string using **new** operator?

a. Stack
b. String memory
c. Heap memory
d. Random storage space

Answer :c

---

27) What is the use of the intern() method?

a. It returns the existing string from memory
b. It creates a new string in the database
c. It modifies the existing string in the database
d. None of the above

Answer :a

---

28) Which of the following is a marker interface?

a. Runnable interface
b. Remote interface
c. Readable interface
d. Result interface

Answer :b

---

29) Which of the following is a reserved keyword in Java?

a. object
b. strictfp
c. main
d. system

Answer :b

---

30) Which keyword is used for accessing the features of a package?

a. package
b. import
c. extends
d. export

Answer :b

---

31) In java, jar stands for_____.

a. Java Archive Runner
b. Java Application Resource
c. Java Application Runner
d. None of the above

Answer :d

---

32) What will be the output of the following program?

```
public class Test2 {
   public static void main(String[] args) {
      StringBuffer s1 = new StringBuffer("Complete");
      s1.setCharAt(1,'i');
      s1.setCharAt(7,'d');
      System.out.println(s1);
   }
}
```

a. Complete
b. Iomplede
c. Cimpletd
d. Coipletd

Answer :c

---

33) Which of the following is false?

a. The rt.jar stands for the runtime jar
b. It is an optional jar file
c. It contains all the compiled class files
d. All the classes available in rt.jar is known to the JVM

Answer :b

---

34) What is the use of \w in regex?

a. Used for a whitespace character
b. Used for a non-whitespace character
c. Used for a word character
d. Used for a non-word character

Answer :c

---

35) Which of the given methods are of Object class?

a. notify(), wait(long msecs), and synchronized()
b. wait(long msecs), interrupt(), and notifyAll()
c. notify(), notifyAll(), and wait()
d. sleep(long msecs), wait(), and notify()

Answer :c

---

36) Given that Student is a class, how many reference variables and objects are created by the following code?

```
Student studentName, studentId;
studentName = new Student();
Student stud_class = new Student();
```

a. Three reference variables and two objects are created.
b. Two reference variables and two objects are created.
c. One reference variable and two objects are created.
d. Three reference variables and three objects are created.

Answer :a

---

37) Which of the following is a valid syntax to synchronize the HashMap?

a. Map m = hashMap.synchronizeMap();
b. HashMap map =hashMap.synchronizeMap();
c. Map m1 = Collections.synchronizedMap(hashMap);
d. Map m2 = Collection.synchronizeMap(hashMap);

Answer:c

---

38) Given,

```
ArrayList list = new ArrayList();
```

What is the initial quantity of the ArrayList list?

a. 5
b. 10
c. 0
d. 100

Answer :b

---

39) Which of the following is a mutable class in java?

a. java.lang.String
b. java.lang.Byte
c. java.lang.Short
d. java.lang.StringBuilder

Answer :d

---

40) What will be the output of the following program?

```
abstract class MyFirstClass
{
    abstract num (int a, int b) {  }
}
```

a. No error
b. Method is not defined properly
c. Constructor is not defined properly
d. Extra parentheses

Answer :b

---

41) What is meant by the classes and objects that dependents on each other?

a. Tight Coupling
b. Cohesion
c. Loose Coupling
d. None of the above

Answer :a

---

42) Given,

```
int values[ ] = {1,2,3,4,5,6,7,8,9,10};
for(int i=0;i< Y; ++i)
System.out.println(values[i]);
```

Find the value of value[i]?

a. 10
b. 11
c. 15
d. None of the above

Answer :d

---

43) Which of the following code segment would execute the stored procedure "getPassword()" located in a database server?

a. CallableStatement cs = connection.prepareCall("{call.getPassword()}");
cs.executeQuery();

b.CallabledStatement callable = conn.prepareCall("{call getPassword()}");
callable.executeUpdate();

c. CallableStatement cab = con.prepareCall("{call getPassword()}");

cab.executeQuery();

d.Callablestatement cstate = connect.prepareCall("{call getpassword()}");
cstate.executeQuery();

Answer :c

---

44) How many threads can be executed at a time?

a. Only one thread
b. Multiple threads
c. Only main (main() method) thread
d. Two threads

Answer:b

---

45) If three threads trying to share a single object at the same time, which condition will arise in this scenario?

a. Time-Lapse
b. Critical situation
c. Race condition
d. Recursion

Answer:c

---

46) If a thread goes to sleep

a. It releases all the locks it has.
b. It does not release any locks.
c. It releases half of its locks.
d. It releases all of its lock except one.

Answer:b

---

47) Which of the following modifiers can be used for a variable so that it can be accessed by any thread or a part of a program?

a. global
b. transient
c. volatile
d. default

Answer:c

---

48) What is the result of the following program?

```
public static synchronized void main(String[] args) throws
InterruptedException {
    Thread f = new Thread();
     f.start();
     System.out.print("A");
     f.wait(1000);
     System.out.print("B");
```

}

a. It prints A and B with a 1000 seconds delay between them
b. It only prints A and exits
c. It only prints B and exits
d. A will be printed, and then an exception is thrown.

Answer:d

---

49) In character stream I/O, a single read/write operation performs _____.

a. Two bytes read/write at a time.
b. Eight bytes read/write at a time.
c. One byte read/write at a time.
d. Five bytes read/ write at a time.

Answer:a

---

50) What is the default encoding for an OutputStreamWriter?

a. UTF-8
b. Default encoding of the host platform
c. UTF-12
d. None of the above

Answer:b

MCQS in Fundamentals Of Inforation Technology

1.What is smallest unit of the information?
a. A bit
b. A byte
c. A block
d. A nibble

2. What is the decimal equivalent of the binary number 10111?
a.21
b.39
c.42
d.23

3. How many color dots make up one color pixel on a screen?
a.265
b.16
c.8
d.3

4. Which of the following natural element is the primary element in computer chips?
a. Silicon
b. Carbon
c. Iron
d. Uranium

5.Which of the following is an output device?

a. Keyboard
b. Mouse
c. Light pen
d. VDU

6.Who was the father of computers?

a. Newton
b. Grace Hoppers
c. Herman Hollerith
d. **Charles Babbage**

7.Which of the following are components of Central Processing Unit?

a. Mouse, Arithmetic logic Unit
b. **Arithmetic logic unit, Control Unit**
c. Control Unit, Integrated Circuits
d. Monitor, Control Unit

8. Printed copy is often called?

a. **Hard Copy**
b. Soft Copy
c. Write Copy
d. Blank Copy

9. How many generations of computers are there?

a. **5**
b. 4
c. 3
d. 6

10. Which of the following memory is non-volatile?

a. SRAM
b. **ROM**
c. DRAM
d. All of the above

11. A computer consists of?

a. Motherboard
b. CPU
c. Hard Disk Drive
d. **All of the above**

12. **DOS stands for?**

a. Document Operating System
b. **Disk Operating System**
c. Digital Operating System
d. None of these

13. Which one of these is an Operating System?

a. **MS-DOS**
b. MS-Word
c. MS-Office
d. MS-Access

14. Which windows does not have a start button?

a. **Windows 8**
b. Windows 7
c. None of these
d. Windows XP

15. **Which one of the following is a Single-User Operating System?**

a. Windows
b. MAC
c. **MS-DOS**
d. None of these

16. **What is the name of the feature that allow us to take a step backward if we've made a mistake?**

a. Redo
b. Cancel
c . Undo
d. Backspace

17. Ctrl + U provide _____ facility?
a. Undelete the previously deleted text
b. Undelete the previously deleted text
c. Underline the document name
d. Underline the selected text

18.How many margins surrounded around the document page?

a.Two (header and footer)
b**.Four (top, bottom, right and left)**
c. Two (landscape and portrait)
d. Four (center, top, left and bottom)

19. **Which menu option would you choose to list Synonyms & Antonyms of a selected word ?**

a. Tools, Spelling & Grammar
b. Review, Thesaurus
c. Tools, Options
d. Insert, Cross-reference

20. **Which bar is usually located below that Title Bar that provides categorized options?**

a. Menu bar
b. Status Bar
c. Tool bar
d. Scroll bar

21 **What is the purpose of inserting header and footer in document ?**

a). to enhance the overall appearance of the document
b). to mark the starting and ending of page
c). to make large document more readable
d). **to allow page headers and footers appear on document when printed**

22.Choose the latest file extension for Microsoft Excel?

a. XLSX

b. DOC

c. XLS

d. XLL

Choose the word-processing program from the following options?

a. MS Word

b. MS Access

c. MS PowerPoint

d. MS Excel

A process is a _____.

a. single thread of execution.

b. program in the execution

c. program in the memory

d. task

Answer :b

24. What is the term for a temporary storage area that compensates for differences in data rate and data flow between devices?

a. Buffer

b. Bus

c. Channel

d. Modem

Answer : a

25. Which of the following is the extension of Notepad?

a. .txt
b. .xls
c. .ppt
d. .bmp

Answer : a

26. The central processing unit is located in the _____.

a. Hard disk
b. System unit
c. Memory unit
d. Monitor

Answer :b

27. Which type of program acts as an intermediary between a user of a computer and the computer hardware?

a. Operating system
b. User thread
c. Superuser thread
d. Application program
e. Answer :a

28. What is the full form of USB?

a. Unshielded System Board
b. Universal System Board
c. Unidentified System Bus
d. Universal System Bus

Answer :d

29 . Which one of the following is an example of the browser software?

a. Microsoft Word

b. Notepad

c. Internet navigator

d. Internet explorer

Answer : d

30 . _____ **computers are also called personal computers ?**

a. Mainframe Computer

b. Mini Computers

c. Micro Computers

d. Super Computers

Answer : b

31. **What was the main disadvantage of vacuum tubes?**

a. They were larger in size

b. They consumed a lot of electricity

c. They produced heat and often burned out

d. The operation cost was high

Answer : c

32. **Bit stands for_____ ?**

a. Binary digits

b. Bit of system

c. A part of byte

d. All of above

Answer :a

33 . What is the speed of computer measured in?

a. Nanoseconds
b. Kilo-seconds
c. Gigahertz
d. Megabytes
e. Answer :c

34 : When we delete the file, the file goes to

a My computer
b Control Panel
c Recycle bin
d None of the above

Operating System MCQ

1) Which of the following is not an operating system?

a. Windows
b. Linux
c. Oracle
d. DOS

Answer :c

---

2) What is the maximum length of the filename in DOS?

a. 4
b. 5
c. 8
d. 12

Answer :C

---

3) When was the first operating system developed?

a. 1948
b. 1949
c. 1950
d. 1951

Answer :C

---

4) When were MS windows operating systems proposed?

a. 1994
b. 1990
c. 1992
d. 1985

Answer :D

---

5) Which of the following is the extension of Notepad?

a. .txt
b. .xls
c. .ppt
d. .bmp

Answer :A

---

6) What else is a command interpreter called?

a. prompt
b. kernel
c. shell
d. command

Answer :C

---

7) What is the full name of FAT?

a. File attribute table
b. File allocation table
c. Font attribute table
d. Format allocation table

Answer :B

---

8) BIOS is used?

a. By operating system
b. By compiler
c. By interpreter
d. By application software

Answer :A

---

9) What is the mean of the Booting in the operating system?

a. Restarting computer
b. Install the program
c. To scan
d. To turn off

Answer :A

---

10) When does page fault occur?

a. The page is present in memory.
b. The deadlock occurs.
c. The page does not present in memory.
d. The buffering occurs.

Answer:C

---

11) Banker's algorithm is used?

a. To prevent deadlock
b. To deadlock recovery
c. To solve the deadlock
d. None of these

Answer :A

---

12) When you delete a file in your computer, where does it go?

a. Recycle bin
b. Hard disk
c. Taskbar
d. None of these

Answer :A

---

13) Which is the Linux operating system?

a. Private operating system
b. Windows operating system
c. Open-source operating system
d. None of these

Answer :C

---

14) What is the full name of the DSM?

a. Direct system module
b. Direct system memory
c. Demoralized system memory
d. Distributed shared memory

Answer :D

---

15) What is the full name of the IDL?

a. Interface definition language
b. Interface direct language
c. Interface data library
d. None of these

Answer :A

---

16) What is bootstrapping called?

a. Cold boot
b. Cold hot boot
c. Cold hot strap
d. Hot boot

Answer:A

---

17) What is the fence register used for?

a. To disk protection
b. To CPU protection
c. To memory protection
d. None of these

Answer :C

---

18) If the page size increases, the internal fragmentation is also?..?

a. Decreases
b. Increases
c. Remains constant
d. None of these

Answer :B

---

19) Which of the following is a single-user operating system?

a. Windows
b. MAC
c. Ms-Dos
d. None of these

Answer :C

---

20) The size of virtual memory is based on which of the following?

a. CPU
b. RAM
c. Address bus
d. Data bus

Answer :C

---

21) If a page number is not found in the translation lookaside buffer, then it is known as a?

a. Translation Lookaside Buffer miss

b. Buffer miss
c. Translation Lookaside Buffer hit
d. All of the mention

Answer :A

---

22) Which of the following is not application software?

a. Windows 7
b. WordPad
c. Photoshop
d. MS-excel

Answer :A

---

23) Which of the following supports Windows 64 bit?

a. Window XP
b. Window 2000
c. Window 1998
d. None of these

Answer :A

---

24) Which of the following windows does not have a start button?

a. Windows 7
b. Windows 8
c. Windows XP
d. None of these

Answer :B

---

25) Which of the following operating systems does not support more than one program at a time?

a. Linux
b. Windows
c. MAC
d. DOS

Answer :D

---

26) Which of the following is a condition that causes deadlock?

a. Mutual exclusion

b. Hold and wait
c. Circular wait
d. No preemption
e. All of these

Answer :E

---

27) Who provides the interface to access the services of the operating system?

a. API
b. System call
c. Library
d. Assembly instruction

Answer :B

---

28) Where are placed the list of processes that are prepared to be executed and waiting?

a. Job queue
b. Ready queue
c. Execution queue
d. Process queue

Answer :B

---

29) Who among the following can block the running process?

a. Fork
b. Read
c. Down
d. All of these

Answer :D

---

30) Which of the following does not interrupt the running process?

a. Timer interrupt
b. Device
c. Power failure
d. Scheduler process

Answer :B

---

31) What is Microsoft window?

a. Operating system

b. Graphics program
c. Word Processing
d. Database program

Answer :A

---

32) Which of the following is group of programs?

a. **Accessories**
b. Paint
c. Word
d. All of above

Answer :A

---

33) Which of the following is an example of a Real Time Operating System?

a. MAC
b. MS-DOS
c. Windows 10
d. Process Control

Answer :D

---

34) Which of the following operating systems do you use for a client-server network?

a. MAC
b. Linux
c. Windows XP
d. Windows 2000

Answer :D

---

35) Which windows was introduced to My Computer?

a. Windows 10
b. Windows XP
c. Windows 95
d. Windows 98

Answer :C

---

36) What type of commands are required to perform various tasks in DOS?

a. Internal commands
b. External commands

c. Valuable commands
d. Primary commands

Answer :B

---

37) What is the number of characters contained in the primary name of the file of MS-DOS?

a. Up to 8 characters
b. 3 characters
c. Up to 10 characters
d. None of the above

Answer :A

---

38) Which command is used to fetch a group (.doc) of files that have just been deleted?

a. Undelete
b. Undelete/all
c. Undelete *.doc
d. All of above

Answer :C

---

39) Which of the following is system software?

a. Operating system
b. Compiler
c. Utilities
d. All of the above

Answer :D

---

40) Which program runs first after booting the computer and loading the GUI?

a. Desktop Manager
b. File Manager
c. Windows Explorer
d. Authentication

Answer:D