C++ Pointers MCQs

1. Which of the following is the correct way to declare a pointer ?

A. int *ptr
B. int ptr
C. int &ptr
D. All of the above
View Answer
Ans : A

Explanation: int *ptr is the correct way to declare a pointer.

2. Which of the following gives the [value] stored at the address pointed to by the pointer : ptr?

A. Value(ptr)
B. ptr
C. &ptr
D. *ptr
View Answer
Ans : D

Explanation: *ptr gives the [value] stored at the address pointed to by the pointer : ptr.

3. A pointer can be initialized with

A. Null
B. Zero
C. Address of an object of same type
D. All of the above
View Answer
Ans : D

Explanation: A pointer can be initialized with null, zero and Address of an object of same type.

4. Choose the right option string* x, y;

A. x is a pointer to a string, y is a string
B. y is a pointer to a string, x is a string
C. Both x and y are pointers to string types
D. none of the above
View Answer
Ans : A

Explanation: * is to be grouped with the variables, not the data types

5. Generic pointers can be declared with_____ .

A. auto
B. void
C. asm
D. None of the above

View Answer

Ans : B

Explanation: Generic pointers can be declared with void.

6. What is size of generic pointer in c?

A. 0
B. 1
C. 2
D. Null

View Answer

Ans : C

Explanation: Size of any type of pointer is 2 byte.

7. Which from the following is not a correct way to pass a pointer to a function?

A. Non-constant pointer to non-constant data
B. A non-constant pointer to constant data
C. A constant pointer to non-constant data
D. All of the above

View Answer

Ans : D

Explanation: All of the above is not a correct way to pass a pointer to a function.

8. What does the following statement mean?

```
int (*fp)(char*)
```

A. Pointer to a pointer
B. Pointer to an array of chars
C. Pointer to function taking a char* argument and returns an int
D. Function taking a char* argument and returning a pointer to int

View Answer

Ans : C

Explanation: The statement means Pointer to function taking a char* argument and returns an int

9. A void pointer cannot point to which of these?

A. Methods in c++
B. Class member in c++
C. Both A & B
D. None of the above

View Answer

Ans : B

Explanation: Because the class member will have a definite type, So it cannot pointed by a void pointer.

10. Referencing a value through a pointer is called

A. Direct calling
B. Indirection
C. Pointer referencing
D. All of the above

View Answer

Ans : B

Explanation: Referencing a value through a pointer is called Indirection.

11. What is the output of this program?

```
#include <iostream>

using namespace std;



int main()

    {

        int x = 1, y = 3, z = 5;

        int *lfc[ ] = {&x, &y, &z};

        cout << lfc[1];

        return 0;

    }
```

A. 1
B. 3
C. 5
D. it will return some random number

View Answer

Ans : D

Explanation: array element cannot be address of auto variable. It can be address of static or extern variables.

12. What is the output of this program?

```
#include <iostream>



using namespace std;

int main()

{

    char lfc[20];

    int i;

    for(i = 0; i < 10; i++)

        *(lfc + i) = 65 + i;

    *(lfc + i) = ' ';

    cout << lfc;

    return(0);

}
```

A. ABCDEFGHIJ
B. AAAAAAAAAA
C. JJJJJJJJ
D. None of the mentioned

View Answer

Ans : A

Explanation: Each time we are assigning 65 + i. In first iteration i = 0 and 65 is assigned. So it will print from A to J.

13. What is the output of this program?

```
#include <iostream>


using namespace std;

int main()

{

    char *ptr;

    char Str[] = "abcdefg";

    ptr = Str;

    ptr += 5;

    cout << ptr;

    return 0;


}
```

A. fg
B. cdef
C. defg
D. abcd

View Answer

Ans : A

Explanation: Pointer ptr points to string "fg". So it prints fg.

14. Which of the following statement is correct about the program given below?

```
Note:Includes all required header files


 using namespace std;

   int main()

   {

       int a[2][4] = {1, 2, 3, 4, 5, 6, 7, 8};
```

```
        cout << *(a[1] + 2) << *(*(a + 1) + 2) << 2[1[a]];

        return 0;

    }
```

A. 5 6 7
B. 7 7 7
C. 8 8 8
D. Compile time error

View Answer

Ans : B

Explanation: a[1][2] means 1 * (4)+2 = 6th element of an array starting from zero

15. Which of the following is true about the following program

```
#include <iostream>



using namespace std;

int main()

{

   int i;

   char *lfc[] = {"C", "C++", "Java", "VBA"};

   char *(*ptr)[4] = &lfc;

   cout << ++(*ptr)[2];

   return 0;

}
```

A. ava
B. java
C. c++
D. compile time error

View Answer

Ans : A

Explanation: In this program we are moving the pointer from first position to second position and printing the remaining value.

16. What will be the output of this program?

```
Note:Includes all required header files


using namespace std;
   int main()
   {
        int find[] = {1, 2, 3, 4};
        int *p = (find + 1);
        cout << *p;
        return 0;
   }
```

A. 1
B. 2
C. 3
D. 4

View Answer

Ans : B

Explanation: In this program, we are making the pointer point to next value and printing it.

17. What will be the output of this program?

```
Note:Includes all required header files
using namespace std;
   int main()
   {
        int find[] = {1, 2, 3, 4};
        int *p = (find + 1);
        cout << find;
```

```
        return 0;

    }
```

A. 1
B. 2
C. address of find
D. 4

View Answer

Ans : C

Explanation: As we counted to print only find, it will print the address of the array.

18. What will be the output of the following program?

```
Note:Includes all required header files


using namespace std;

    int main()

    {

          int find[] = {1, 2, 3, 4};

          int *p = (find + 1);

          cout << *find + 9;

          return 0;

    }
```

A. 9
B. 10
C. 11
D. error

View Answer

Ans : B

Explanation: In this program, we are adding the value 9 to the initial value of the array, So it's printing as 13.

19. What will be the output of the following program?

```
Note:Includes all required header files


using namespace std;


   int main ()
   {
       int find[5];
       int * p;
       p = find;  *p = 1;
       p++;  *p = 2;
       p = &find[2];  *p = 3;
       p = find + 3;  *p = 4;
       p = find;  *(p + 4) = 5;
       for (int n = 0; n < 5; n++)
           cout << find[n] << ",";
       return 0;
   }
```

A. 1,2,3,4,5,
B. 12345
C. compile error
D. runtime error

View Answer

Ans : A

Explanation: In this program, we are just assigning a value to the array and printing it and immediately dereferencing it.

20. The correct statement for a function that takes pointer to a float, a pointer to a pointer to a char and returns a pointer to a pointer to a integer is

A. int **fun(float**, char**)
B. int *fun(float*, char*)

C. int ***fun(float*, char**)
D. int ***fun(*float, **char)
View Answer
Ans : C

Explanation: The correct statement for a function that takes pointer to a float, a pointer to a pointer to a char and returns a pointer to a pointer to a integer is int ***fun(float*, char**).

21. The pointer can point to any variable that is not declared with which of these?

A. Const
B. Volatile
C. Both A & B
D. Static
View Answer
Ans : C

Explanation: None

22. Which operator returns the address of unallocated blocks in memory?

A. The delete operator
B. The empty operator
C. The new operator
D. All of them
View Answer
Ans : C

Explanation: None.

23. Which of the following is illegal?

A. int *ip;
B. string s, *sp = 0;
C. int i; double* dp = &i
D. int *pi = 0;
View Answer
Ans : C

Explanation: dp is initialized int value of i.

24. Which one of the following is not a possible state for a pointer?

A. Hold the address of the specific object
B. Point one past the end of an object
C. Zero
D. Point to a type

View Answer

Ans : D

Explanation: A pointer can be in only 3 states a,b and c.

25. A pointer contains _____.

A. Address of a variable
B. Name of the variable
C. Value of the variable
D. None of the above

View Answer

Ans : A

Explanation: None

26. Which of the following are not a member dereferencing operators in CPP? 1. * 2. :: 3. ->* 4. ::* 5. ->

A. Only 1, 2, 4
B. Only 1 and 5
C. Only 2 and 5
D. Only 3,4,5

View Answer

Ans : C

Explanation: None

27. What is meaning of following declaration?

```
int(*p[5])();
```

A. p is pointer to function.
B. p is array of pointer to function
C. p is pointer to such function which return type is array.
D. p is pointer to array of function.

View Answer

Ans : B

Explanation: In the above declaration the variable p is array not pointer.

28. What will happen in this code?

```
int a = 100, b = 200;

int *p = &a, *q = &b

p = q;
```

A. b is assigned to a
B. p now points to b
C. a is assigned to b
D. q now points to a

View Answer

Ans : B

Explanation: Assigning to refrence changes the object to which the refrence is bound

29. Choose the right option

```
string* x, y;
```

A. x is a pointer to a string, y is a string
B. y is a pointer to a string, x is a string
C. Both x and y are pointer to string types
D. None of the above

View Answer

Ans : A

Explanation: * is to be grouped with the variables not the data types.

30. Which is true for b, if b is defined as "int *b[10];"?

A. The definition only allocates 10 pointers and does not initialize them
B. Initialization must be done explicitly
C. The definition only allocates 10 pointers and does not initialize them & Initialization must be done explicitly
D. Error

View Answer

Ans : C

Explanation: None