Mcq QUESTIONS

1. Who invented C++?  
   a) Dennis Ritchie  
   b) Ken Thompson  
   c) Brian Kernighan  
   d) Bjarne Stroustrup

Answer: d  
Explanation: Bjarne Stroustrup is the original creator of C++ in 1979 at AT&T Bell Labs.

1. What is C++?  
   a) C++ is an object-oriented programming language  
   b) C++ is a procedural programming language  
   c) C++ supports both procedural and object-oriented programming language  
   d) C++ is a functional programming language

Answer: c  
Explanation: C++ supports both procedural(step by step instruction) and object oriented programming (using the concept of classes and objects).

1. Which of the following is the correct syntax of including a user defined header files in C++?  
   a) #include [userdefined]  
   b) #include “userdefined”  
   c) #include <userdefined.h>  
   d) #include <userdefined>

Answer: b  
Explanation: C++ uses double quotes to include a user-defined header file. The correct syntax of including user-defined is #include “userdefinedname”

4. Which of the following is used for comments in C++?  
a) /\* comment \*/  
b) // comment \*/  
c) // comment  
d) both // comment or /\* comment \*/

Answer: d  
Explanation: Both the ways are used for commenting in C++ programming. // is used for single line comments and /\* … \*/ is used for multiple line comments

5. Which of the following user-defined header file extension used in c++?  
a) hg  
b) cpp  
c) h  
d) hf  
Answer: c  
Explanation: .h extensions are used for user defined header files. To include a user defined header file one should use #include”name.h” i.e. enclosed within double quotes

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6. Which of the following is a correct identifier in C++?  
a) VAR\_1234  
b) $var\_name  
c) 7VARNAME  
d) 7var\_name

Answer: a  
Explanation: The rules for writing an identifier is as follows:  
i) may contain lowercase/uppercase letters, digits or underscore(\_) only  
ii) should start with a non-digit character  
iii) should not contain any special characters like @, $, etc.

7. Which of the following is not a type of Constructor in C++?  
a) Default constructor  
b) Parameterized constructor  
c) Copy constructor  
d) Friend constructor

Answer: d  
Explanation: Friend function is not a constructor whereas others are a type of constructor used for object initialization.

8. Which of the following approach is used by C++?  
a) Left-right  
b) Right-left  
c) Bottom-up  
d) Top-down

Answer: c  
Explanation: C++ is an object-oriented language and OOL uses a bottom-up approach to solve/view a problem.

9. What is virtual inheritance in C++?  
a) C++ technique to enhance multiple inheritance  
b) C++ technique to ensure that a private member of the base class can be accessed somehow  
c) C++ technique to avoid multiple inheritances of classes  
d) C++ technique to avoid multiple copies of the base class into children/derived class

Answer: d  
Explanation: Virtual inheritance is a C++ technique with which it ensures that a derived class contains only one copy of the base class’s variables. Refer Wikipedia for more info.

10. What happens if the following C++ statement is compiled and executed?

int \*ptr = NULL;

delete ptr;

a) The program is not semantically correct  
b) The program is compiled and executed successfully  
c) The program gives a compile-time error  
d) The program compiled successfully but throws an error during run-time

Answer: b  
Explanation: The above statement is syntactically and semantically correct as C++ allows the programmer to delete a NULL pointer, therefore, the program is compiled and executed successfully.

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

#include <iostream>

#include <string>

using namespace std;

int main(int argc, char const \*argv[])

{

char s1[6] = "Hello";

char s2[6] = "World";

char s3[12] = s1 + " " + s2;

cout<<s3;

return 0;

}

a) Hello  
b) World  
c) Error  
d) Hello World  
Answer: c  
Explanation: There is no operation defined for the addition of character array in C++ hence the compiler throws an error as it does not understood what to do about this expression.

12. What is the difference between delete and delete[] in C++?  
a) delete is syntactically correct but delete[] is wrong and hence will give an error if used in any case  
b) delete is used to delete normal objects whereas delete[] is used to pointer objects  
c) delete is a keyword whereas delete[] is an identifier  
d) delete is used to delete single object whereas delete[] is used to multiple(array/pointer of) objects

Answer: d  
Explanation: delete is used to delete a single object initiated using new keyword whereas delete[] is used to delete a group of objects initiated with the new operator.

13. What happens if the following program is executed in C and C++?

#include <stdio.h>

int main(void)

{

int new = 5;

printf("%d", new);

}

a) Error in C and successful execution in C++  
b) Error in both C and C++  
c) Error in C++ and successful execution in C  
d) A successful run in both C and C++

Answer: c  
Explanation: new is a keyword in C++, therefore, we cannot declare a variable with name new but as there is no such keyword new in C, therefore, the program is compiled and executed successfully in C.

14. What happens if the following program is executed in C and C++?

#include <stdio.h>

void func(void)

{

printf("Hello");

}

void main()

{

func();

func(2);

}

a) Outputs Hello twice in both C and C++  
b) Error in C and successful execution in C++  
c) Error in C++ and successful execution in C  
d) Error in both C and C++

Answer: d  
Explanation: As the func(void) needs no argument during its call, hence when we are calling func(2) with 2 as passed as a parameter then this statement gives the error in both C++ and C compiler.

15. Which of the following is correct about this pointer in C++?  
a) this pointer is passed as a hidden argument in all static variables of a class  
b) this pointer is passed as a hidden argument in all the functions of a class  
c) this pointer is passed as a hidden argument in all non-static functions of a class  
d) this pointer is passed as a hidden argument in all static functions of a class  
Answer: c  
Explanation: As static functions are a type of global function for a class so all the object shares the common instance of that static function whereas all the objects have there own instance for non-static functions and hence they are passed as a hidden argument in all the non-static members but not in static members.

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

1. #include <iostream>
2. #include <string>
3. #include <algorithm>
4. using namespace std;
5. int main()
6. {
7. string s = "spaces in text";
8. s.erase(remove(s.begin(), s.end(), ' ' ), s.end() ) ;
9. cout << s << endl;
10. }

a) spacesintext  
b) spaces in text  
c) spaces  
d) spaces in

Answer: a  
Explanation: In this program, We formed a algorithm to remove spaces in the string.  
Output:

$ g++ dan.cpp

$ a.out

spacesintext

17. Which of the following C++ code will give error on compilation?

================code 1=================

#include <iostream>

using namespace std;

int main(int argc, char const \*argv[])

{

cout<<"Hello World";

return 0;

}

========================================

================code 2=================

#include <iostream>

int main(int argc, char const \*argv[])

{

std::cout<<"Hello World";

return 0;

}

========================================

a) Code 1 only  
b) Neither code 1 nor code 2  
c) Both code 1 and code 2  
d) Code 2 only

Answer: b  
Explanation: Neither code 1 nor code 2 will give an error as both are syntactically correct as in first code we have included namespace std and in second one we have used scope resolution operator to resolve the conflict.

18. Which of the following type is provided by C++ but not C?  
a) double  
b) float  
c) int  
d) bool  
Answer: d  
Explanation: C++ provides the boolean type to handle true and false values whereas no such type is provided in C.

19. What is the value of p in the following C++ code snippet?

1. #include <iostream>
2. using namespace std;
3. int main()
4. {
5. int p;
6. bool a = true;
7. bool b = false;
8. int x = 10;
9. int y = 5;
10. p = ((x | y) + (a + b));
11. cout << p;
12. return 0;
13. }

a) 12  
b) 0  
c) 2  
d) 16  
Answer: d  
Explanation: | means bitwise OR operation so x | y (0101 | 1010) will be evaluated to 1111 which is integer 15 and as a is true and b is false so a+b(1 + 0) = 1. So final value of expression in line #10 will be 15 + 1 = 16.

20. By default, all the files in C++ are opened in \_\_\_\_\_\_\_\_\_ mode.  
a) Binary  
b) VTC  
c) Text  
d) ISCII  
Answer: c  
Explanation: By default, all the files in C++ are opened in text mode. They read the file as normal text.

21. What will be the output of the following C++ function?

1. int main()
2. {
3. register int i = 1;
4. int \*ptr = &i;
5. cout << \*ptr;
6. return 0;
7. }

a) Runtime error may be possible  
b) Compiler error may be possible  
c) 1  
d) 0  
Answer: b  
Explanation: Using & on a register variable may be invalid, since the compiler may store the variable in a register, and finding the address of it is illegal.

22. Which of the following correctly declares an array in C++?  
a) array{10};  
b) array array[10];  
c) int array;  
d) int array[10];  
Answer: d  
Explanation: Because array variable and values need to be declared after the datatype only.

23. What is the size of wchar\_t in C++?  
a) Based on the number of bits in the system  
b) 2 or 4  
c) 4  
d) 2  
Answer: a  
Explanation: Compiler wants to make CPU as more efficient in accessing the next value.

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

#include<iostream>

using namespace std;

int main ()

{

int cin;

cin >> cin;

cout << "cin: " << cin;

return 0;

}

a) Segmentation fault  
b) Nothing is printed  
c) Error  
d) cin: garbage value  
Answer: d  
Explanation: cin is a variable hence overrides the cin object. cin >> cin has no meaning so no error.

25. What is the use of the indentation in c++?  
a) r distinguishes between comments and inner data  
b) distinguishes between comments and outer data  
c) distinguishes between comments and code  
d) r distinguishes between comments and outer data  
Answer: c  
Explanation: To distinguish between different parts of the program like comments, codes, etc.

26. Which is more effective while calling the C++ functions?  
a) call by object  
b) call by pointer  
c) call by value  
d) call by reference  
Answer: d  
Explanation: In the call by reference, it will just passes the reference of the memory addresses of passed values rather than copying the value to new memories which reduces the overall time and memory use.

27. What will be the output of the following C++ program?

#include <iostream>

#include <string>

#include <cstring>

using namespace std;

int main(int argc, char const \*argv[])

{

const char \*a = "Hello**\0**World";

cout<<a;

return 0;

}

a) Hello  
b) World  
c) Error  
d) Hello World  
Answer: a  
Explanation: char\* are terminated by a ‘\0’ character so the string “Hello\0World” will be cut down to “Hello”.

28. Which of the following is used to terminate the function declaration in C++?  
a) ;  
b) ]  
c) )  
d) :  
Answer: a  
Explanation: ; semicolon is used to terminate a function declaration statement in C++.

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

1. #include <iostream>
2. using namespace std;
3. int main()
4. {
5. char c = 74;
6. cout << c;
7. return 0;
8. }

a) I  
b) J  
c) A  
d) N  
Answer: b  
Explanation: The literal value for 74 is J. So it will be printing J.

30. What will be the output of the following C++ program?

1. #include <iomanip>
2. #include <iostream>
3. using namespace std;
4. int main()
5. {
6. cout << setprecision(17);
7. double d = 0.1;
8. cout << d << endl;
9. return 0;
10. }

a) compile time error  
b) 0.100001  
c) 0.11  
d) 0.10000000000000001  
Answer: d  
Explanation: The double had to truncate the approximation due to its limited memory, which resulted in a number that is not exactly 0.1.  
Output:

$ g++ float2.out

$ a.out

0.10000000000000001