

# INTERVIEW FOR ACADEMIC INTERNSHIP

**MULTIPLE CHOICE: MARK THE RIGHT ANSWER**

**NB: Right answer = +1; Wrong answer = -0.5; No Answer = 0**

**TIME: 1h15min**

## Section 1: C++

Question 1.

What is the correct value to return to the operating system upon the successful completion of a program?

- A. -1
- B. 1
- C. 0
- D. Programs do not return a value.

Question 2.

What is the only function all C++ programs must contain?

- A. start()
- B. system()
- C. main()
- D. program()

Question 3.

What punctuation is used to signal the beginning and end of code blocks?

- A. { }
- B. -> and <-
- C. BEGIN and END
- D. ( and )

Question 4.

What punctuation ends most lines of C++ code?

- A. . (dot)
- B. ; (semi-colon)
- C. : (colon)
- D. ' (single quote)

Question 5.

Which of the following is a correct comment?

- A. /\* Comments \*/
- B. \*\* Comment \*\*
- C. /\* Comment \*/
- D. { Comment }

Question 6.

Which of the following is not a correct variable type?

- A. float
- B. real
- C. int
- D. double

Question 7.

Which of the following is the correct operator to compare two variables?

- A. :=
- B. =
- C. equal
- D. ==

Question 8.

Which of the following is true?

- A. 1
- B. 66
- C. .1
- D. -1
- E. All of the above

Question 9.

Which of the following is the boolean operator for logical-and?

- A. &
- B. &&
- C. |
- D. |&

Question 10.

Evaluate `!(1 && !(0 || 1))`.

- A. True
- B. False
- C. Unevaluatable

Question 11.

Find out the error in following block of code.

If (`x = 100`)

`Cout << "x is 100" ;`

- A. 100 should be enclosed in quotations
- B. There is no semicolon at the end of first line
- C. Equals to operator mistake
- D. Variable x should not be inside quotation

Question 12.

Looping in a program means

- A. Jumping to the specified branch of program
- B. Repeat the specified lines of code
- C. Both of above
- D. None of above

Question 13.

The difference between while structure and do structure for looping is

- A. In while statement the condition is tested at the end of first iteration
- B. In do structure the condition is tested at the beginning of first iteration
- C. The do structure decides whether to start the loop code or not whereas while statement decides whether to repeat the code or not
- D. In while structure condition is tested before executing statements inside loop whereas in do structure condition is tested before repeating the statements inside loop

Question 14:

Which of the following is not a looping statement in C?

- A. while
- B. until
- C. do
- D. for

Question 15.

Which of the following is not a jump statement in C++?

- A. break
- B. goto
- C. exit
- D. switch

Question 16.

Which of the following is selection statement in C++?

- A. break
- B. goto
- C. exit
- D. switch

Question 17.

The continue statement

- A. resumes the program if it is hanged
- B. resumes the program if it was break was applied
- C. skips the rest of the loop in current iteration
- D. all of above

Question 18:

Consider the following two pieces of codes and choose the best answer

CODE 1:

```
switch (x) {
case 1: cout << " x is 1" ;
break;
case 2: cout << " x is 2" ;
break;
default: cout << " value of x unknown" ;
}
```

CODE 2

```
If (x==1){
    Cout << " x is 1" ;
}
Else if (x==2){
    Cout << "x is 2" ;
}
Else{
    Cout << " value of x unknown" ;
}
```

- A. Both of the above code fragments have the same behaviour
- B. Both of the above code fragments produce different effects
- C. The first code produces more results than second
- D. The second code produces more results than first.

Question 19.

Observe the following block of code and determine what happens when  $x=2$ ?

```
switch (x){
case 1:
case 2:
case 3:  cout<< "x is 3, so jumping to third branch";
         goto thirdBranch;
default:
         cout<<"x is not within the range, so need to say Thank You!";
}
```

- A. Program jumps to the end of switch statement since there is nothing to do for  $x=2$
- B. The code inside default will run since there is no task for  $x=2$ , so, default task is run
- C. Will display x is 3, so jumping to third branch and jumps to thirdBranch.
- D. None of above

Question 20.

Which of the following is false for switch statement in C++?

- A. It uses labels instead of blocks
- B. we need to put break statement at the end of the group of statement of a condition
- C. we can put range for case such as case 1..3
- D. None of above

### **SECTION 3: Software Design – UML Class and Object Diagrams**

This set of Software Design Multiple Choice (MCQs) focuses on “UML Class and Object Diagrams”

21. What does a simple name in UML Class and objects consists of ?

- A) Letters
- B) Digits
- C) Punctuation Characters
- D) All of the mentioned

22. What Does a Composite name consists of in a UML Class and object diagram ?

- A) Delimiter
- B) Simple names
- C) Digits
- D) All of the mentioned

23. A Class consists of which of these abstractions?

- A) Set of the objects
- B) Operations
- C) Attributes
- D) All of the mentioned
- E) B, C

24. A class is divided into which of these compartments ?

- A) Name Compartment
- B) Attribute Compartment
- C) Operation Compartment
- D) All of the mentioned

25. An attribute is a data item held by which of the following ?

- A) Class
- B) Object
- C) All of the mentioned
- D) None of the mentioned

26. What should be mentioned as attributes for conceptual modelling ?

- A) Initial Values
- B) Names
- C) All of the mentioned
- D) None of the mentioned

27. An operation can be described as?

- A) Object behavior
- B) Class behavior
- C) Functions
- D) A,B
- E) None of the mentioned

28. Which of these are part of class operation specification format ?

- A) name
- B) parameter list
- C) return-type list
- D) All of the mentioned

29. What among these is true ?

- A) Associations may also correspond to relation between instances of three or more classes
- B) Association lines may be unlabeled or they may show association name
- C) All of the mentioned

D) None of the mentioned

30. What is multiplicity for an association?

- a) The multiplicity at the target class end of an association is the number of instances that can be associated with a single instance of source class
- b) The multiplicity at the target class end of an association is the number of instances that can be associated with a number instance of source class
- c) All of the mentioned
- d) None of the mentioned

### **SECTION 3: PHP**

31. Trace the odd data type

- A. floats
- B. integer
- C. doubles
- D. Real number

32. Which of the following are valid float values?

- A. 4.5678
- B. 4.0
- C. 7e4
- D. All of above

33. In php string data are

- A. delimited by single quote
- B. delimited by double quote
- C. delimited by <<< identifier
- D. All of above

34. Which of the following delimiting method is known as string Interpolation

- A. delimited by single quote
- B. delimited by double quote
- C. delimited by <<< identifier
- D. All of above

35. Which data types are treated as arrays

- A. Integer
- B. Float
- C. String
- D. Booleans

36. Which of following are compound data type?

- A. Array

- B. Objects
- C. Both
- D. None

37. Casting operator introduced in PHP 6 is

- a. (array)
- b. (int64)
- c. (real) or (double) or (float)
- d. (object)

38. When defining identifier in PHP you should remember that

- A. Identifier are case sensitive. So \$result is different than \$ result
- B. Identifiers can be any length
- C. Both of above
- D. None of above

39. Identify the invalid identifier

- A. my-function
- B. size
- C. - some word
- d. This&that

40. Which of following variable assignment is 'by value' assignment in PHP

- A. \$value1= \$value?
- B. \$value1= & \$value?
- C. \$value1= & \$value?
- D. None