

TAKORADI TECHNICAL UNIVERSITY
FACULTY OF APPLIED SCIENCE
DEPARTMENT OF COMPUTER SCIENCE
END OF SECOND SEMESTER EXAMINATION 2020/2021
BTECH ICT – LEVEL 100

COURSE CODE: CSC313
DURATION: 2HR 30MIN

GR-B

COURSE: C++ PROGRAMMING
AUGUST 2021

SECTION A: (20MARKS) – 1HOUR *Answer all questions*

1. A valid C++ identifier has the following features except
 - a. Identifiers cannot start with a digit
 - b. Identifier can be a C++ keyword
 - c. Identifiers may include an underscore (`_`)
 - d. Identifiers may be of any length
2. The `#include<iostream>` in C++ does the following except
 - a. Tells the C++ pre-processor to include input/output header file
 - b. Contains information necessary to compile programs that use `cin` and `cout`
 - c. Contains information necessary to compile the operators `<<` and `>>`
 - d. None of the above
3. In a function, the following is true
 - a. a left brace must begin the body of the function
 - b. a corresponding right brace must end each function's body
 - c. all of the above
 - d. none of the above
4. A semi-colon is used in the following except
 - a. After the right ending brace of a function's body
 - b. After a function declaration statement
 - c. After a variable declaration statement
 - d. After an arithmetic logic statement
5. Concerning a string, which of the following is true
 - a. White space characters in strings are ignored by compiler
 - b. String in double quotes is not a character string
 - c. String in double quotes is sometimes referred to as character string
 - d. Strings are the same as characters
6. In an if statement the following is true except
 - a. The condition is enclosed in two brackets (`()`)
 - b. The statement of the condition may follow with or without curly brackets (`{}`)
 - c. It allows a program to make a decision when certain conditions are met
 - d. None of the above
7. The following is true about variables
 - a. Local variables can only be used only in member functions
 - b. Global variables can only be used outside the member functions
 - c. All of the above
 - d. None of the above

8. Consider the two lines code in a C++ program below and select which option is true.
- ```
cout << "This is a C++ program\n";
cout << "\tThis is a C++ program";
```
- a. The first line is wrong
  - b. The first line will output `This is a C++ program\n`
  - c. The second line will create a tab space before outputting the string
  - d. None of the above

9. Given the algebraic expression  $y = ax^3 + 7$  which of the following, is a correct C++ statement for this equation?

- a. `y = a * (x * x * x) + 7;`
- b. `y = a * x * x * (x + 7);`
- c. `y = a * x * x * x + 7;`
- d. `y = (a * x) * x * (x + 7);`

10. In a repetitive statement...

- a. A condition must be met
- b. An action is repeated while the condition remains true
- c. All of the above
- d. None of the above

11. Consider the following code and select which error needs correction

```
while (c <= 5)
{
cin<<c;
product *= c;
c++;
```

- a. Change `<<` to `>>` on line 3
- b. Add `}` on line 6
- c. All of the above
- d. All the code is correct

12. Every class definition contains the keyword \_\_\_\_\_ followed immediately by the class's name.

- a. Class
- b. Float
- c. Datatype
- d. function

13. Each parameter in a function header should specify both a(n) \_\_\_\_\_ and a(n)

- a. Scope, name
- b. Type, name
- c. Access specifier, type
- d. Void, operator



14. When each object of a class maintains its own copy of an attribute, the variable that represents the attribute is also known as a(n) \_\_\_\_\_.

- a. Data type
- b. Access specifier
- c. Data member
- d. Object

15. Return type \_\_\_\_\_ indicates that a function will perform a task but will not return any information when it completes its task

- a. Void
- b. Object
- c. Int
- d. string

16. The keyword **public** is a(n) \_\_\_\_\_.

- a. Class
- b. Data type
- c. Object
- d. Access specifier

Use the following code below to answer questions 17 to 20

```
#include<iostream>
using namespace std;
int main()
{
 int a, b;
 a=5;
 cout<<a<<"and"<<b;
 system("pause");
 return 0;
}
```

17. The code above will not run because there is a syntax error

- a. True
- b. False
- c. Invalid point
- d. None of the above

18. Which of the following is True?

- a. There is an error in the first line of the code
- b. A semi-colon is required at the end of the first line in the code
- c. All of the above
- d. None of the above

19. Which of the following is not true about the function **main**

- a. It takes two parameters
- b. It returns an integer value
- c. All of the above
- d. None of the above

20. The following is true of the modulus operator %

- a. Works only with integer operands
- b. Yields the remainder after division
- c. All of the above
- None of the above

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**SECTION B: ANSWER ALL (20 MARKS) – 30 MIN**

*Answer True or False to each of the questions in this section and explain the reason if your answer is false.*

1. There should be a semicolon after the parenthesis of an if statement (2marks)
2. Every C++ program begins execution at the function main
3. Comments are used to document a program and improve its readability. (2marks)
4. The default case is required in the switch selection statement. (2marks)
5. All arguments to function calls in C++ are passed by value (2marks)
6. C++ considers the variables **number** and **NumBEr** to be identical. (2marks)
7. An array subscript should normally be of data type float (2marks)
8. The break statement is required in the default case of a switch selection statement to exit the switch properly. (2marks)
9. A variable that is known only within the function in which it is defined is called a local variable. (2marks)
10. An array can store many different types of values. (2marks)