



**UNIVERSITY OF VOCATIONAL TECHNOLOGY**  
**Faculty of Training Technology**  
**Bachelor of Technology in Information & Communication Technology**  
**(Multimedia & Web, Software, Network) 2015 / 2016 (B1)**  
Year I – Semester- I Examination - September -2015

**Object Oriented Programming with C++ IT10402**

Duration : 03 Hours

**Part - A**

**(40 Marks)**

Select the most suitable answer and write on given booklet.

1. string is one dimensional array of \_\_\_\_\_  
(a) integer (c) character  
(b) float (d) all of above
2. What is the only function all C++ programs must contain?  
(a) start() (c) main()  
(b) system() (d) program()
3. The statement `int num[2][3]={ {1,2}, {3,4}, {5, 6} };`  
(a) assigns a value 2 to `num[1][2]` (c) gives an error message  
(b) assigns a value 4 to `num[1][2]` (d) assigns a value 3 to `num[1][2]`
4. The keyword used to transfer control from a function back to the calling function is  
(a) switch (c) go back  
(b) goto (d) return
5. Which of the following is a correct comment?  
(a) `*/ Comments */` (c) `/* Comment */`  
(b) `** Comment **` (d) `{ Comment }`
6. Regarding following statement which of the statements is true?  
`const int pathwidth=100;`  
(a) Declares a variable `pathwidth` with 100 as its initial value  
(b) Declares a construction `pathwidth` with 100 as its initial value  
(c) Declares a constant `pathwidth` whose value will be 100  
(d) Constructs an integer type variable with `pathwidth` as identifier and 100 as value

7. Observe following function declaration and choose the best answer:  
`int divide ( int a, int b = 2 )`  
 (a) Variable b is of integer type and will always have value 2  
 (b) Variable a and b are of int type and the initial value of both variables is 2  
 (c) Variable b is international scope and will have value 2  
 (d) Variable b will have value 2 if not specified when calling function
8. The members of a class, by default, are  
 (a) public (c) private  
 (b) protected (d) mandatory to specify
9. What is this operator called ::?  
 (a) Conditional operator (c) Casting operator  
 (b) Relational operator (d) Scope resolution operator
10. In a group of nested loops, which loop is executed the most number of times?  
 (a) the outermost loop  
 (b) the innermost loop  
 (c) all loops are executed the same number of times  
 (d) cannot be determined without knowing the size of the loops
11. Everything defined at the program scope level (ie. outside functions and classes) is said to be .....  
 (a) local scope (c) global scope  
 (b) regional scope (d) static scope
12. What is the output of the program  
`#include<iostream.h>`  
  
`void main()`  
`{`  
`int n=1;`  
`cout<<endl<<"The numbers are;"<<endl;`  
`do`  
`{`  
  
`cout<<n<<"\t";`  
`n++;`  
`} while (n<=100);`  
`cout<<endl;`  
`}`
- (a) Print natural numbers 0 to 99 (c) Print natural numbers 0 to 100  
 (b) Print natural numbers 1 to 99 (d) Print natural numbers 1 to 100

13. Declaration of a pointer reserves memory space
- (a) for the object.
  - (b) for the pointer.
  - (c) both for the object and the pointer
  - (d) none of these
14. Which of the following identifiers is invalid?
- (a) avariable1
  - (b) marks
  - (c) namespace
  - (d) numberOfStudents
15. Which of the following term is used for a function defined inside a class?
- (a) Member Variable
  - (b) Member function
  - (c) Class function
  - (d) Classic function
16. Which of the following concept of oops allows compiler to insert arguments in a function call if it is not specified?
- (a) Call by value
  - (b) Call by reference
  - (c) Default arguments
  - (d) Call by pointer
17. Which of the following cannot be passed to a function?
- (a) Reference variable
  - (b) Arrays
  - (c) Class objects
  - (d) Header files
18. Which of the following keywords are used to control access to a class member?
- (a) default
  - (b) break
  - (c) protected
  - (d) goto
19. What's wrong with the given for loop? `for (int k = 2, k <=12, k++)`
- (a) the increment should always be `++k`
  - (b) the variable must always be the letter `i` when using a for loop
  - (c) there should be a semicolon at the end of the statement
  - (d) the commas should be semicolons
20. If there is more than one statement in the block of a for loop, which of the following must be placed at the beginning and the ending of the loop block?
- (a) parentheses `( )`
  - (b) braces `{ }`
  - (c) brackets `[ ]`
  - (d) arrows `<>`

**Part - B****(60 marks)****Answer any six questions. Each question carries equal marks**

1) Create a C++ program to calculate the sum of any 10 integer numbers using arrays

2) Write a program will print the pattern as shown below

```
*
***
*****
*****
*****
```

3) Write a program which produces a simple table of the following format for integers in the range 1 to 8 , use while loop.

```
2^1=2
2^2=4
2^3=8
2^4=16
2^5=32
2^6=64
2^7=128
2^8=256
```

4) Compute factorial of a given no. using functions

5) Display the below table using functions. Use function name star() to print 3 starlines for the table.

```
*****
Subject      Marks
*****
Java         D
C++          C
VB           A
Pascal       B
*****
```

6) Write a C++ program to calculate sum of two numbers, using pointer

7) Write a program to find the area of the rectangle. Class name called *findrec* and 2 member function called *values()* and *rect\_area()*. Passing values are 5,10. Use member functions outside the class definition. ( scope operator)