



# BRAINWARE UNIVERSITY

**Term End Examination 2023**  
**Programme – M.Sc.(MATH)-2022**  
**Course Name – Computer Programming**  
**Course Code - MSCM(CS)201**  
**( Semester II )**

**Full Marks : 60**

**Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

(i) Identify the correct answer. Size of a 1D array (in bytes) is calculated as

a) Size of data type

b)

Size of data type \* size of an array

c) Number of elements

d) Size of data type + sizeof an array

(ii) Identify the correct one. Which keyword is used with switch case?

a) continue

b) sizeof

c) break

d) goto

(iii) Select the correct answer. List out the operators that MATLAB allows.

a) Bitwise Operations

b) Static operator

c) Dynamic operator

d) None of these

(iv) Choose the correct answer. Which of the following is unary operator?

a)

b) -

+

c) >>

d) \*

(v) MATLAB API means: Selecting the correct answer.

a) Application Program Interface

b) Application Process Interconnected

c) Advance Program Internet

d) Advanced process Interface

(vi) Choose the correct answer. Which of the following is bitwise operator?

a) >

b) <

c) >=

d) >>

(vii) Choose the correct answer. What is the output of the following code?

```
#include

void main()

{

int x=2;

if(x>5)

printf("one");

printf("two");

printf("three");

}
```

- a) one two three
- b) one
- c) one two
- d) two three

(viii) Choose the correct answer. To stop the execution of a MATLAB command, used keys.

- a) ctrl+c
- b) alt+F4
- c) Esc
- d) None of these.

(ix) Identify the correct one. Which is exit control loop?

- a) for
- b) while
- c) do-while
- d) continue

(x) Identify the correct answer. To print a newline in a printf statement, you must use the following escape character:

- a) t
- b) nl
- c) nxt
- d) n

(xi) Identify the correct one. Which loop is most suitable to first perform the operation and then test the condition?

- a) for loop
- b) while loop
- c) do-while loop
- d) none of these

(xii) Select the correct answer. Which of the following are tokens in C?

- a) Keywords
- b) Variables
- c) Constants
- d) All of these

(xiii) Select the correct answer. What types of loops do MATLAB provides?

- a) While loop
- b) For loop
- c) Not Supported
- d) Both While loop and For loop

(xiv) Identify the correct one. Else block ..... associated with if block.

- a) always
- b) Not always
- c) Depend on else condition
- d) None of these

(xv) Write the correct one. Which data type is not allowed in the switch statement?

- a) int
- b) char
- c) float
- d) All of these

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Describe about void and character data types.

(3)

3. Describe shortly on the Logical operator (3)
4. Write the difference in terms of their functions, between break and continue statements. (3)
5. Evaluate a program to find out the area of a circle. (3)
6. Evaluate the values of 6.628 under the commands fix, round, ceil, floor. (3)

**OR**

(3)

Evaluate the problem solving the following ODE using MATLAB ode45:

$$\frac{dy}{dx} = \cos \cos x + \sin \sin x, \quad y(0) = -1 .$$

**Group-C**

(Long Answer Type Questions)

5 x 6=30

7. Briefly describe the storage class. (5)
8. Write about the getch function. (5)
9. Explain the if loop in MATLAB with suitable example. (5)
10. Evaluate a program in C to check whether a year is a leap year or not. (5)
11. Conclude about string character constants. (5)
12. Evaluate a program using the syntax about while loops. (5)

**OR**

Evaluate a program using the syntax about do-while loops. (5)

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