



BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – M.Sc.(MATH)-2023
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

Choose the correct alternative from the following: Select the correct option from the following. _____ are tokens in C. b) Variables a) Keywords d) All of these c) Constants (ii) Identify the output of the following code: void main() { int num1 = 8;int num2 = 7;int result = num1 - num2; printf("%d", result); }. b) 0 a) 15 d) -1

(iii) Identify the correct example of exit control loop from the following:

a) for

b) while

c) do-while

- d) continue
- (iv) Identify the correct output of the following C code: <code>int main()
 {
 int array[4]={1,2,3,4};
 printf("%d",*array);
 }</code>
 - a) 1

b) Compile time error

c) Some garbage value

- d) Undefined variable
- (v) Select the correct answer. The size of data type float in bytes is _____
 - a) 1

b) 2

	c) 3	d)	4	
(vi)	Identify the ternary operator from the following	g :		
	a) +		=	
	c) >	d)	?:	
(vii)	Choose the conditional operator from the follow	ving	:	
	a) +	b)	=	
	c) >	d)	?:	
(viii)	Choose the correct answer. Associativity is appli	ied v	when operators have	
	precedence.			
	a) same	b)	high	
(:)	c) low		no	
(IX)	Choose the correct answer. '&' is a op	era	tor.	
	a) bit wise	•	relational	
(~)	c) logical		none of these .	
	Select the correct answer. Array index starts from			
	a) 0	- 5	1	
(vi)	c) 2	,	3	
	Choose the correct answer. Elements of an array			
	a) continuous manner	-	non-contiguous manner	
	c) random manner Choose the correct answer The function condex	•	All of these	1
(All)	Choose the correct answer. The function <code> in string for</code>	> <5ti	ong/streat() <td>1</td>	1
	a) copy string	ы		
	c) delete string		comparing strings append strings	
	Select the correct answer. MATLAB consists of _			
	a) MATLAB Language			
	c) Handle Graphics		MATLAB working environment All of these	
	Select the correct answer is not a p	ore-c	defined variable in MATI AR	
	a) pi		inf	
	c) i	•	gravity	
(xv)				
	iteration of the loop.	,	moves to the next	
	a) update	b)	goto	
	c) continue		break	
		•		
	, Grou	р-В		•
	(Short Answer Ty	/pe (Questions)	3 x 5=15
	amine output of the following program taking			(3)
	a=10, b=20 and			
(b)	a=40, b=24.			
	<pre>void main()</pre>			
	{			
	int a,b;			
	printf("Enter the value of a,bn'	'):		
	scanf("%d%dn",a,b);	, ,		
	printf(" %d ",(a>b)?1:0);			

```
}
                                                                                                      (3)
  3. Describe about the character set with examples.
                                                                                                      (3)
  4. Describe the increment and decrement operator shortly.
                                                                                                      (3)
 5. Evaluate the value of \int_1^2 x \, dx by trapezoidal rule for n = 8 using MATLAB programming.
                                                                                                      (3)
 6. Recommend a MATLAB program to solve the following ODE:
    \frac{dy}{dx} = \cos x + \sin x, \ y(0) = -1.
                                                      OR
    Evaluate a program in C to read three values using scanf statement and print the average of
                                                                                                      (3)
    them.
                                                   Group-C
                                                                                                    5 x 6=30
                                       (Long Answer Type Questions)
                                                                                                       (5)
 7. Write down about formatted input functions.
     Write a program in C to check whether a year is leap year or not.
                                                                                                       (5)
                                                                                                       (5)
    Analyse about the components MATLAB language.
                                                                                                       (5)
10. Evaluate a program to find the reverse of a given number (e.g. 2365 is reverse of 5632).
11. Conclude about the implicit type conversion in expression.
                                                                                                       (5)
12. Evaluate a program using the syntax of nesting of if-else statement.
                                                                                                       (5)
                                                     OR
    Conclude about single character constants.
                                                                                                       (5)
```

printf(" %d ",(a<b)?1:0);</pre>

