BRAINWARE UNIVERSITY

Course – BAMW

Computer Science (BMWG101)

(Semester – 1)

Time allotted: 3 Hours   **Full Marks: 70**

[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 Questions)

10 x 1 = 10

1. *Choose the correct alternative from the following*

(i) C supports the _____ statement to branch unconditionally from one point to another in the program
    a. continue
    b. break
    c. goto
    d. switch

(ii) The break statement is used to exit from
    a. an if statement
    b. a loop
    c. a program
    d. the main() function.

(iii) An array is a collection of
    a. different data types scattered through memory
    b. the same data type scattered throughout the memory
    c. The same data type placed next to each other in memory
    d. Different data types placed next to each other in memory

(iv) Every C function
    a. By default return an integer value
    b. By default return more than one integer value
    c. By default return an floating constant
    d. None of these

(v) Static memory allocation means allocation during _____ time.

    a. Compile
    b. Run

    c. Allocation
    d. De-allocation

(vi) C programming is a

    a. Procedural language
    b. Object oriented language

    c. Both a and b
    d. None of these

(vii) The output of the following code is

```
int a = 5;
    if( 10 )
        printf("%d",++a);
    else
        printf("%d",a++);
```

    a. 6
    b. 5

    c. 4
    d. None of these

(viii) What will be the following output?

```
int i=2;
    switch(i)
    {
        case 1: printf("Happy");
            break;
        case 2: printf("NEW");
        case 3: printf("YEAR");
    }
```

    a. Happy
    b. NEW

    c. NEWYEAR
    d. None of these

(ix) Which of the following is a ternary operator

    a. +
    b. --

    c. ? :
    d. !

(x) What is the value of y in the following code?

```
x = 7; y = 0;
if(x)
   y = 7 ;
else
   y = 1;
```

    a. 7
    b. 0

    c. 1
    d. 6

Group – B
(Short Answer Type Questions)
(Answer any *three* from the following)

3 x 5 = 15

2. Explain precedence and associativity of unary and binary operator with example. [5]

3. Write a comparative study among while, do-while and for loop. [5]

4. Write a C program to find the reverse of a given number. [5]

5. Write a C program to swap (exchange) the values between two variables. [5]

6. Define the mechanism of 'switch-case-default' statement with example. [5]

Group – C
(Long Answer Type Questions)
(Answer any *three* from the following)

3 x 15 = 45

7. (a) What is user defined function? Explain with a suitable example. [5]

   (b) Discuss about the syntax of 'while loop'. [3]

   (c) Write a C program to print the following pattern:
   ```
   *
   * *
   * * *
   * * * *
   ```
   [7]

8. (a) What is an array? How can you declare a 2-D array of integer and float type? [5]

   (b) Write a C program to check whether a string is palindrome or not. [10]

9. (a) Write a C program to find the smallest element from an array of 10 elements of integer type. [5]

   (b) Discuss about logical operator and bitwise operator with proper example. [6]

   (c) Distinguish macro and function with example. [4]

10. (a) Differentiate break and exit statement with suitable example. [4]

    (b) What are the rules to declare variable in C. [4]

    (c) Write a C program to reverse a string. [7]

11.   Write short notes on any *three* from the following: [3 X 5]

      (a) Logical operator

      (b) String

      (c) Variable vs. Array

      (d) While loop vs. do-while loop