



BRAINWARE UNIVERSITY
Term End Examination 2018 - 19
Programme – Bachelor of Arts (Honours) in Multimedia & Web Development
Course Name - Computer Science (Basic C Programming)/Computer Science
Course Code – BMW103/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) By default a real number is treated as:
 - a. float
 - b. double
 - c. long double
 - d. far double
 - (ii) A ternary operator contains _____ operator
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - (iii) Which header file should be included to use functions like malloc() and calloc)?
 - a. memory.h
 - b. stdlib.h
 - c. string.h
 - d. dos.h
 - (iv) The number of logical operators in C are
 - a. 1
 - b. 2
 - c. 3
 - d. None of these
 - (v) A program is a:
 - a. A sequence of instructions using a programming language
 - b. Diagrammatic representations of the instructions
 - c. A list of instructions (actions) to accomplish a task
 - d. A set of mathematical operators
 - (vi) Which of the following cannot be checked in a switch-case statement?
 - a. Character
 - b. Integer
 - c. Float
 - d. Enum

- (vii) Smallest element of array's index is called:
- a. lower bound
 - b. upper bound
 - c. range
 - d. Extraction.
- (viii) Which of the following special symbol allowed in a variable name?
- a. * (asterisk)
 - b. | (pipeline)
 - c. - (hyphen)
 - d. _ (underscore)
- (ix) Which of the declaration is correct?
- a. int length
 - b. char int
 - c. int long
 - d. float double
- (x) The value of EOF is_____.
- a. -1
 - b. 0
 - c. 1
 - d. 10

Group – B

(Short Answer Type Questions)

3x5=15

Answer any *three* from the following:

- 2 Write a C program that uses ‘for’ construct to find the sum of the following harmonic series for a given value of n and display the sum.
 $1 + 1/2 + 1/3 + \dots + 1/n$; 5
- 3 Write a switch statement that will examine the value of an integer variable flag and print the following messages:
It is hot weather; if flag has value 1
It is a stormy weather; if flag has value 2
It is sticky weather; if flag has value 3
It is a pleasant weather; otherwise 5
- 4 Explain the scope of int, long int, char. 5
- 5 Why do we use functions? Give the advance features of functions. 5
- 6 Write a program to test if a character from the keyboard is a lower case letter. 5

Group – C

(Long Answer Type Questions)

3x 15 = 45

Answer any *three* from the following:

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|-----|-----|--|---|
| 7. | (a) | What are the features of C preprocessor? Write the differences between macros and functions. | 6 |
| | (b) | Write a function, which takes an array of real numbers and its size as arguments and returns the maximum and the minimum. Using the above function write a program to read a set of real numbers from the keyboard and find the maximum and the minimum number in the array. | 9 |
| 8. | (a) | Define a pointer. Write a program to assign any number at random to an integer variable k and display the same through pointer. | 8 |
| | (b) | Explain library string functions. Write a program to copy the contents of the string “HELLO” to another string embedding a blank between each of the characters. | 7 |
| 9. | (a) | Explain the following types of errors, which are considered while testing programs - Syntax errors, Run-time errors, Logical errors. | 6 |
| | (b) | What is meant by identifiers? How do identifiers differ from keywords? | 4 |
| | (c) | Write a program to find the sum & average of a given set of positive integers using the do---while loop. | 5 |
| 10. | (a) | Distinguish between call-by-value and call-by-reference. Illustrate. | 6 |
| | (b) | What is an array & how is an array variable different from an ordinary variable? | 4 |
| | (c) | Give the difference between break & continue statement. | 5 |
| 11. | (a) | Define the following:
Auto variables, Static variables, External variables, Register variables. | 8 |
| | (b) | Explain in detail most commonly used dynamic memory allocation functions. | 7 |
