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Question Paper Code: CMB312

MBA II Semester End Examinations (Regular) - July, 2017

Regulation: -R16

C Programming

(Master of Business Administration)

Time: 3 Hours

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

## UNIT – I

1. (a) Discuss the concept of implicit type conversion with a suitable example. [7M]

- (b) Write a C program that calculates and prints the average of entered integers. Assume the user will enter control-d to end the input. [7M]

Sample Run:

Enter an integer (control-d to end): 23

Enter an integer (control-d to end): 123

Enter an integer (control-d to end): 45

Enter an integer (control-d to end): 987

Enter an integer (control-d to end): 87

Enter an integer (control-d to end): 098

Enter an integer (control-d to end):

The average is : 227.17

2. (a) A palindrome is a number or a text phrase that reads the same backwards as forwards. Write a C program that reads in a five-digit integer and determines whether or not it is a palindrome.

Hint: Use the division and modulus operators to separate the number into its individual digits.

Sample Run 1:

Enter a five-digit number: 12345

12345 is not a palindrome

Sample Run 2:

Enter a five-digit number: 12321

12321 is a palindrome

- (b) Discuss the concept of identifiers and data-types in C. [7M]

## UNIT – II

3. (a) With a suitable example, discuss the following categories of user defined functions in C [10M]

i. functions with arguments and return values

ii. function with no argument and return type

- (b) Explain briefly how do you pass a 2D array as a parameter in C? [4M]

4. (a) The factorial of a integer N, denoted by N! is the product of all positive integers less than or equal to N. Factorial does not exist for negative numbers and factorial of 0 is 1. Write a recursive routine to compute factorial of a number. Write a test driver for the same. [8M]
- (b) What is an array? How is an array declared and initialized? [6M]

### UNIT – III

5. (a) Bring out the significance of pointers to void with a suitable example. [8M]
- (b) In C, a string can be referred either using a character pointer or as a character array. Explain it with examples. [6M]
6. (a) Explain briefly pointer arithmetic in C with suitable examples. [6M]
- (b) What are the unformatted string input and output functions available in C? Is the input function safe? If yes, why and If no, Justify? [8M]

### UNIT – IV

7. (a) With a suitable example explain the concept of typedef. [6M]
- (b) A complex number is a number that can be expressed in the form  $a + bi$ , where a and b are real numbers and i is the imaginary unit, satisfying the equation  $i^2 = -1$ . Write a C Program to add two complex numbers by passing structure to a function. [8M]
8. (a) Write a C program using nested structures to read 3 employees details with the following fields; emp-id, name, designation, address, basic, da, hra and calculate gross salary of each employee. (Hint : gross salary = basic + da + hra). [9M]
- (b) Bring out the advantage of using Bit Fields in C with a suitable example. [5M]

### UNIT – V

9. (a) Why is fseek() preferred over rewind() in C? [6M]
- (b) Write a C Program to Copy Contents of one file to another file. [8M]
10. (a) Discuss how reading and writing w.r.t binary file done in C. [8M]
- (b) Explain briefly fgets() and fputs() with an example. [6M]

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