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Question Paper Code: CMB312

MBA II Semester End Examinations (Supplementary) - January, 2018
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) Explain the following with one example each. [7M]
   i. Arithmetic operator
   ii. Relational operator
   iii. Logical operator
   (b) Design an algorithm to input temperature in degree Fahrenheit(F) and convert it to degree Centigrade(C) using the following formula: [7M]
   $$C = (F - 32) \times \frac{5}{9}$$
2. (a) Design a flow chart to check whether the given number is even or odd. [7M]
   (b) Exemplify the iterative statements supported by C Language. [7M]

UNIT – II

3. (a) Differentiate call by value and call by reference usage to swap two numbers [7M]
   (b) What is an array? How 1-d and 2-d arrays are declared and initialized. Give example for each. [7M]
4. (a) List and discuss the categories of functions considering the parameter passing and return values. [7M]
   (b) Develop a C program to find the sum of principal diagonal elements of a square matrix. [7M]

UNIT – III

5. (a) Explain the following string handling functions with proper examples: [7M]
   i. strcat()
   ii. strstr()
   iii. strcmp()

(b) Evaluate the following [7M]

Table 1

main( )
{
int *ptr;
int arr[ ]=1,2,3,4;
ptr=arr;
printf("%d%d",arr[2],ptr[2]);
}
	main( )
	{
	int a=10;
	int *ptr=&a;
	void *vptr=ptr;
	*ptr++;
	*vptr++;
	printf("the values are %d%d",*ptr,
	vptr);
	}

6. (a) Discuss the following with suitable examples [7M]
   i. Array of pointers ii. Pointer to function
   (b) List the functions used for various memory allocations supported by C and give one example for each. [7M]

UNIT – IV

7. (a) Discuss how structures and unions are declared, initialized and its members accessed. [7M]
   (b) Write short note on the following [7M]
   i. typedef ii. enumerations iii. bit fields

8. (a) Develop a C program which does the following:
   Define a structure 'student' with details like student name, marks for 3 subjects and total marks. Read marks for 3 subjects of 'n' students. Calculate the total mark of each student and store them. Display the details of the student who scored the highest marks. [7M]
   (b) Give a typical example for nested structures, arrays of structures, and arrays within structures. [7M]

UNIT – V

9. (a) Discuss the following file handling functions with suitable examples. [7M]
   i. fread() ii. fwrite() iii. fseek() iv. ftell()
   (b) Develop a C program to create two files STD-DETAILS (Student Name, Student ID, and Semester) and STD-MARKS (Sub1, Sub2, and Sub3). Concatenate the two files and display the contents from the concatenated file [7M]

10. (a) Discuss the primary advantages of using a data file. Describe various file operations and demonstrate the various file accessing modes. [7M]
    (b) A file named DATA contains a series of integer numbers. Code a 'C' program to read these numbers and then write all 'odd' numbers to a file to be called ODD and all 'even' numbers to a file to be called EVEN. [7M]