## **RETEST EXAMINATION - 2019**

Semester: 3rd (Old)

Subject Code: CO-304

## PROGRAMMING USING C

Full Marks -70

Time - Three hours

The figures in the margin indicate full marks for the questions.

## **Instructions:**

- 1. Questions on SECTION A are compulsory.
- 2. Answer any five questions from SECTION B.

SECTION – A Marks – 25

## 1. Answer in brief:

 $5 \times 1 = 5$ 

- (a) Compare the escape sequence: \t and \n.
- (b) Compare %d and %f.
- (c) What is the meaning of putting a data-type in front of a function like main()?
- (d) What is the meaning of return() function?
- (e) What is user defined data-type?

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The variables which can be accessed from any function are called variable and can be accessed only from the function where they are declared are called operator.  \$\( <=, >, >= \text{ are called operator} \text{ operator} \text{ (h)}\$  While is called control loop and dowhile is called control loop.  Size of int type is and char type is in byte.  The header file for getch() is and for printf() is 10×1=10.  The header file for getch() is 10×1=10.  Array index in C language starts from 1.  One if statement written within the body of another if statement is called nested if.  Escape sequence b stands for bold.  A single pointer variable holds the address of another memory variable.  A double pointer variable holds the address of another single pointer variable.  (c) C of another single pointer variable.	3/C	~			4	•	6 6	9		⊕ T
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(g) (h) (h) (h) (i) (i) (i) (i) (i) (i) (i) (i) (i) (i		e holds the address variable.	holds the address of e holds the address variable.	within the body of called <b>nested if</b> .  ds for bold.	11 34	ENTRE	control loop and control loop.  and char type is		variable and can be function where they variable.	$10 \times 1 = 10$ be accessed from any
and produce a string as a result.  (g) The & symbol used with scanf() fur indicates the memory address.  (h) malloc() function is used to calculat required memory locations.  (i) If we do not provide the increment/decrepart in a loop then the loop will becon infinite loop.  (j) FILE is a data-type in C which is used declare certain file operations.  (g) SECTION – B  SECTION – B  Marks – 45  a) Compare while and dowhile states in C.  (b) Define a nested for loop statement with help of an example.  (c) Compare structure and union.	113/C	0	0		MATTER MATTER	TECHNOLOGY N				
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nction nction nction of the e the e the ement ne an od to a not nent ne an n	1			Compare while and dowhile statement in C. 3	SECTION – B  Marks – 45	02	00 0			The strlen() function takes string argument and produce a string as a result.

- 5. (a) Describe the use of switch statement with the help of an example.
- (b) Write a C program to read age of 30 persons in an array. Count the number of persons falling in the age group:

Up to 16 years,

Between 17 and 23 years,

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24 and above

- 6. (a) Write a C program to read a number and find the sum of individual digits of the number.
- (b) Write a C program to read a positive number, find factorial of it.

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- 7. (a) Define an array.
- (b) Describe how data files are managed in C.
- (c) Write a C program to read base and exponentand find power.

- 8. (a) Explain the library functions available in string.h header file: 3×2=6
- (i) strcat()
- (ii) strcpy
- (iii) strcmp()
- (b) Compare single and double pointer with the help of an example.

Write a C program to create a structure for keeping the following data: 6+3=9

eNo, eName, basicPay, grossPay

Enter data in all the fields except grossPay.

Calculate grossPay as follows:

grossPay = basicPay + da + hra

Here da = 39% of basicPay and hra=15% of basic Pay subject to maximum Rs. 6000.00 per month. Write code to enter 4 such records and also display them.

Store the result in a data file "result.txt"

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10. Write short notes on any three: 3×3=9

- (a) Functions in C
- (b) Data-types in C
- (c) Sorting logic (any one)
- (d) Pointers in C.

