APRIL-2016

T. Y. B. Sc.- Statistics Code: 8971

Paper – 305 [Computer Programming with C]

Time: 3 Hours Marks : 75

Instructions: - 1) There are FIVE compulsory questions in this Q. Paper.2) All question carry equal marks.

Q-1 (a) Give description of at least five operators used in C. 10

(b) Give brief details on different data types. 05

OR

Q-1 (a) Give rules for defining the symbolic constants in C. 05

(b) Tabulate Escape sequence and Trigraph sequence characters. 05

(c) Define a variable and state the rules for defining variable names in'C' . 05

Q-2 (a) State different types of operators used in C. Explain any TWO of these operators. 06

(b) Explain the functions: 04

(i) clrscr (),
(ii) getch(),
(iii) printf() ,
(iv) scanf()

(c) Explain nesting of IF....Else statement. 05

OR

Q-2 (a) Explain different output statements used in C. 02

(b) Explain different types of loops. 10

(c) Define constants and variables. Identify the errors, if any, in the following: 03

(i) +5.0E98,
(ii) 2$30,
(iii) 3.97E93.7

Q-3 (a) Write appropriate arithmetic expressions in C for following: 04

$$(i)\ T = \left(\frac{xy}{pq}\right) + (s+t)3(a - b3) - \frac{z4}{\sqrt{a+b}}$$

$$(ii)\ Energy = [mass * accelaratin * height] + [mass * \left(\frac{(velocity)^2}{2}\right)]$$

(b) Distinguish between the actual and formal arguments in function 06

(c) Explain difference between GOTO and BREAK statements. 05

		OR	
Q-3	(a)	Explain the following: (i) Size of () operator, (ii) Increment operators, (iii) Ternary operator.	06
	(b)	Explain structures and array. Also, state the difference between them.	04
	(c)	Write a program that evaluates the sum, sum of squares and mean using the set of n observations.	05
Q-4	(a)	What are one and two dimensional arrays?	05
	(b)	Write a program to perform Completely Randomized Design.	10
		OR	
Q-4	(a)	Compare the following statement with an example: (i) continue and GOTO, (ii) While and For, (iii) While and DO....While	06
	(b)	What is multidimensional Arrays?	04
	(c)	Write a program to find out the median for a given set of 10 numbers.	05
Q-5	(a)	What is Pointers? Explain the rule for pointer operations.	07
	(b)	Explain (i) switchcase, (ii) size of structures	04
	(c)	Write a program to sum 20 observations using pointers.	04
		OR	
Q-5	(a)	Explain the functions: (1) Call by value (2) Call by reference.	06
	(b)	Write a program to scan two square matrices from the user and to display their addition.	05
	(c)	Explain, in brief, use of arrays and pointer with example.	04