[55] SEAT No._____ No. of Printed Pages : 2

SARDAR PATEL UNIVERSITY

S.Y. B.Sc. EXAMINATION, SEM – III

Information Technology

US03CINT02: Problem Solving Methodology & Programming in 'C'

Date: 24/11/2018,Saturday Time:02:00pm To 05:00pm Max. Marks:70

Q.1 Multiple Choice Questions. 10

1. _____is a step by step approach to solve any problem.
   A. Process B. Programming Language
   C. Algorithm D. Compiler
2. What symbol is used to represent output in a flowchart?
   A. Square B. Circle C. Parallelogram D. Triangle
3. What is the value of I after the following execution?
   I=1; ++I =+ 3;
   A. 5 B. 2 C. 1 D. 0
4. The value can be changed during program execution is known as _____.
   A. constant B. Operator
   C. Variable D. None of these
5. An array can be initialize either at compile time or at _____
   A. Run time B. Allocation time C. Released time D. None of above
6. The range of double data type is _____ bytes.
   A. 2 B. 4 C. 8 D. 16
7. _____ types of control structure available in C language.
   A. 1 B. 2 C. 3 D. 4
8. isupper( ) function is available in _____.
   A. <stirng.h> B. <conio.h> C. <math.h> D. <ctype.h>
9. A group of character is known as _____.
   A. Function B. Array
   C. String D. All of above
10. _____function is use for reading the string with the whitespace
    A. gets() B. getc() C. puts() D. putc()

Q.2 Answer the following questions in short. (Any 10) 20

1) List Characteristics of an algorithm.
2) Write a flowchart to find maximum of given three numbers.
3) Write an algorithm to find factorial of N.
4) Explain short hand operator in brief.
5) Write Rules of variable name.
6) Explain scanf() statement with example.
7) Explain break and continue statements in C.
8) Explain structure programming in brief.
9) Write difference between exit and entry controlled loop.

10) Write syntax of Function definition.

11) Explain puts( ) function with syntax and example.

12) Write deference between users define function and library function.

Q.3(A)	Explain Rules to draw flowchart. Also explain symbols used to draw flowchart.	05
(B)	Draw a flowchart to check whether inputted number is prime number or not.	05
	OR	
Q.3(A)	Explain different generation of computer languages.	05
(B)	Draw a flowchart to print N terms of Fibonacci series.	05
Q.4(A)	Explain Arithmetic operator & Relational operator with example.	05
(B)	Explain if...else & nested if statement with syntax and example.	05
	OR	
Q.4(A)	Explain Relational and Pre and post increment operators with example.	05
(B)	Explain switch statement with syntax and example.	05
Q.5(A)	Explain initialization of 1D array with syntax and example.	05
(B)	Explain while and do...while statements with syntax and example.	05
	OR	
Q.5(A)	Explain initialization of 2D array with syntax and example.	05
(B)	Explain in detail "for loop" with syntax and example.	05
Q.6	Explain function call with syntax and example. Explain following function with syntax and example. 1) strcmp ( ) 2) gets ( ) 3) strrev ( )	10
	OR	
Q.6	Explain formal parameter and actual parameter with example. Explain following function with syntax and example. 1) strlen ( ) 2) strcat ( ) 3) strcpy ( )	10