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## Sardar Patel University External Examination (CBCS) M. Sc.(Integrated) (Information Technology) - Ist Semester PS01CIIT03

Problem Solving Methodology and Programming in 'C' 25<sup>th</sup> October, Tuesday, 2016

Time:	10.00 am to 1.00pm Total Marks:	70
Q-1	Select an appropriate option.	10
1	is a step by step approach to solve any problem.  (a) Process (b) Programming Language (c) Algorithm (d) Compiler	
2	What is the standard decision symbol for a flowchart? (a) circle (b) lozenge (c) diamond (d) square	
3	The translator program used in assembly language is called  (a) Compiler (b) Interpreter (c) Assembler (d) Translator	
4	The value can be changed during program execution is known as	
	(a) Variable (b) Constant (c) Operator (d) None of these	
5	format specifier used for floating data type. (a) %d (b) %f (c) %c (d) %e	
6	The range of double data type is bytes. (a) 2 (b) 4 (c) 8 *(d) 16	
7	For declaring two- dimensional arraysubscript is use. (a) One (b) Two (c) Three (d) All of these	
8	When we declare array data type is use. (a) int (b) float (c) char (d) All of these	
9	A group of character is known as  (a) String (b) Array (c) Function (d) All of these	
10	function is use to reading the string.  (a) scanf() (b) printf() (c) strrev() (d) strlen()	
Q-2	Answer the following questions. (Attempt any <b>TEN</b> )	20
1 2 3 4 5	Write advantages and disadvantages of flow chart. What is an Editor? Give 3 examples of well known Editors. List Languages for all generation. Write Rules of variable name. Explain printf() statement with example.	

6 7 8 9 10 11 12	Explain ternary operator. Explain break and continue statement in C. Write difference between exit and entry controlled loop. Explain structure programming. What is string? List out the operation perform on the string. Explain gets() function with syntax and example. What is user define function? Give one example of user define function.	
Q-3 (a) (b)	What is an algorithm? Write advantages and disadvantages of an algorithm. Write an algorithm to find out minimum from N numbers.	5 5
Q-3	OR	
(a) (b)	What is Flowchart? Explain rules to draw flowchart. Write difference between Interpreter and Compiler.	5 5
Q-4 (a) (b)	Explain Basic Structure of a C program. What is operator? Explain different types of operators with example.	5 5
Q-4	OR	
(a) (b)	Explain basic data types used in C language. Explain ifelse & nested if statement with syntax and example.	5 5
Q-5 (a)	Define array? Also explain declaration of 1D and 2D array with syntax and example.	5
(b)	Explain while and for loop with syntax and example.	5
	OR	
Q-5 (a) (b)	Differentiate between do-while, while and for loop. Explain function with syntax and example: (i) pow () (ii) islower()	-5 5
Q-6	Define function? Explain the function categories with example.	10
	OR	
Q-6	Explain the following library function with syntax and example.  (i) strlen () (ii) strcmp() (iii) strcat() (iv) strrev()	10