Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE SEMESTER- 1st / 2nd (SPFU) EXAMINATION - WINTER 2016

Subject Code: CPU001	Date: 30/01/2017
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**Subject Name: Computer Programming & Utilization** 

Time:10:30 AM TO 1:00 PM Total Marks: 70

**Instructions:** 

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

## Section A Objective Section

<b>Q.1</b> A	answer following Questions.		(25)			
Q.1	Every C program requires					
	A At least one main() function	В	More than one main() function			
	C Only one main() function	D	Many main() function			
Q.2	C is alevel language					
	A Lower	В	Middle			
	C Higher	D	Machine			
Q.3	A switch statement can always be replaced by	a serie	es of ifelse statement.			
	A True	В	False			
	C Not always	D	May be			
Q.4	A variable can be made constant by using qua	ılifier_	at the time of initialization.			
	A scan	В	define			
	C fix	D	const			
Q.5	Use of comments reduces the speed of execut	Use of comments reduces the speed of execution of the program.				
<b>C</b> 1-2	A True	В	Depends on the size of the comment			
	C None of the above	D	False			
Q.6	A scanf functionbe used to read a sing	gle cha	racter from the keyboard.			
	A Can not	В	May			
	C Can	D	Always			
Q.7	The declaration int $x[2] = \{1,2,3\}$ ; is		•			
	A Legal	В	Some times legal			
	C Illegal	D	None of the above			
Q.8	A program stops its execution and comes out of the loop when statement is executed.					
	A Continue	В	Return			
	C Break	D	Call			
Q.9	Run time memory allocation is known as					
	A Dynamic memory allocation	В	Static memory allocation			
	C Run time memory allocation	D	Both A and C			
Q.10	To print a floating point value without expone					
	A %g	В	%f			
	C %u	D	%e			
Q.11	The function creates a new file for use		, , ,			
Q.11	A fseek()	В	fprint()			
	C fopen()	D	getw()			
Q.12	To enable the scanf to read string with blank s	_				
Z.12	A %s	В	%c			
	C %[]	D	All of the above			
	· LJ	_				

Q.13	A return statement in function body is					
	A Compulsory	В	Case dependant			
	C Optional	D	None of the above			
Q.14	Which function is used to determine length of the string?					
	A strcmp	В	strcpy			
	C streat	D	strlen			
Q.15	An array that uses more than two subscript is referred to as					
	A One dimensional array	В	Malty dimensional array			
	C Two dimensional array	D	Array			
Q.16	In structure the precedence of the member oper	ator is	*			
	relational operators.					
	A Lower	В	No idea			
	C Equal	D	Higher			
Q.17	A pointer variable is used to store the	of the	•			
	A Data	В	Address			
	C Value	D	Type			
Q.18	The function of rewind()is					
	A To open the file	В	To reuse the file			
	C To set the position to the desired point in	D	To set the position to the beginning of			
	the file		the file			
Q.19	The function which modifies the size of previous	usly a	llocated memory space is known as			
	A malloc	B	realloc			
	C free	D	modify			
Q.20	Every program statement in a C program should	d end	•			
	A True	В	False			
	C None of the above	D	Cant say			
Q.21	The function that calls itself is known as		,			
	A Recursion	В	Str function			
	C Self function	D	Copy function			
Q.22	The function streat has how many parameters?		10			
	A 1	В	2			
	C 5	D	0			
Q.23	Which of the following is invalid variable name	ne?				
	A (area)	В	distance			
	C T_sum	D	X1			
Q.24	In C, if a data item is zero, it is considered false					
	A Can't say	В	None of this			
	C True	D	False			
Q.25	C supports how many relational operators?					
`	A 4	В	8			
	C 6	D	2			

Q.1	Assuming that $x = 5$ , $y = 0$ and $z = 1$ initially	, find	out the value after executing the	
	following code segment.			
	if (x && y)			
	x = 10;			
	else			
	y = 10;			
	A  x = 5	В	x = 10	
	C  x = 1	D	None of the above	
Q.2	How many elements does the array value[]	_		
Q.2	int value[10][10][10];	COIII	in, where the array is declared as.	
	A 10	В	1000	
	C 10000	D	100	
Q.3	If $y = 56.7654$ , than the output for printf('%	_		
Q.5	A Right adjusted	B	Right adjusted but only two digits	
	A Right adjusted	Ъ	after decimal point	
	C Left adjusted	D	*	
	C Left adjusted	D	Left adjusted but only two digits after	
0.4	Assuming a 10 and b 20 initially find a	-441	decimal point	
Q.4	Assuming a =10 and b = 20 initially, find or	it the	value of a and b after executing the	
	following code segment.			
	b+=++a;			
	++b;			
	a++;			
	a+=b++;			
	A $a = 44$ and $b = 32$	В	a = 22  and  b = 11	
		D		
0.5		_	a = 10 and $b = 20$	
Q.5	If 'charles' is compared with 'charley', using the strcmp() function, the value returned			
	is	ъ	0	
	A 0	В	<0	
	C -1	D	>0	

## Subjective Section

**Q.1** Attempt any five questions.(7 Marks each)

(35)

- (1) Give syntax and compare
  - (a) goto, continue, and break statements.
  - (b) While, do-while and for loop.
- (2) What is structure? How it is different from union? Explain nested structure and array of structure with example.
- (3) Discuss different C Operators in detail with proper example.
- (4) If a five digit number is input through keyboard, write a program...
  - (a) To calculate the sum of its digits.
  - (b) To reverse the number & determine whether the original and reversed numbers are equal or not.
- (5) What is an array? List advantages of an array. Write a C program to find largest number from any 3\*3 matrix.
- (6) What is pointer? How pointer is initialized? How it is different from an array? Explain (\*p)[5] and \*p[5].
- (7) What is function? Explain "Pass by Value" and "Pass by reference" with proper example.