Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY BE SEMESTER- Ist /IInd (SPFU)• REMEDIAL EXAMINATION – SUMMER-2015

Subject Code: CPU002Date:02/06/2015Subject Name: COMPUTER PROGRAMMING AND UTILIZATION-IITime: 10.30AM-01.00PMTotal Marks: 70

PART-1 Objective Section:

Instruction: Question No. 1 to 25 carry 1 mark & 26 to 30 carry 2 marks.

Following is an example of user defined function.

Q.1	А	printf	В	scanf			
	С	test	D	main			
	Which of the following is element of function definition?						
Q.2	А	Function name	В	Parameter list			
	С	Function type	D	Above all			
	In C language a variable can not start with:						
Q.3	А	Special character except underscore	В	Number			
	С	Both A & B	D	Alphabet			
	If function does not return any value, return type must be declared as						
Q.4	А	int	В	char			
	С	void	D	float			
	A function without return statement is Legal.						
Q.5	А	True	В	Can't say			
	С	False	D	None			
	Function returns value by default.						
Q.6	А	Char	В	Integer			
	С	Float	D	Void			
	Parameter passing technique in C language is:						
Q.7	А	Call by Reference	В	Call by Value			
	С	Both A & B	D	None			
	When function calls itself, it is known as						
Q.8	А	Loop	В	Recursion			
	С	Pointer	D	Structure			
Q.9	Prie	or to using pointer variable –					

	А	It should be declared	В	It should be initialized			
	С	It should be both declared & initialized	D	None of these			
	Co	mment on this pointer declaration:	ointer declaration: int *X, Y;				
Q.10	А	X is pointer to integer, Y is not.	В	X & Y both are pointer to integer.			
	С	X is pointer to integer, Y may or may not be	D	X & Y both are not pointer to integer.			
	Which one of following is valid to access the address of variable A using pointer P?						
Q.11	А	P = *A	В	P = &A			
	С	$\mathbf{P} = \&\&\mathbf{A}$	D	$\mathbf{P} = \mathbf{A}$			
	If I	If M and N are pointers then which one of following is valid?					
Q.12	А	M + 3	В	M / N			
	С	N / 3	D	M * N			
	W	Which of the following is collection of a different data types?					
Q.13	А	String	В	Array			
	С	Structure	D	Files			
	Ро	Pointers reduce length and complexity of programs.					
Q.14	A	True	В	False			
	С	Can't say	D	Both			
	P1	P1 and P2 are pointer variables. Which is an illegal pointer expression?					
Q.15	A	P1++	В	P2 + P1			
	С	P1 - P2	D	P2 > P1			
	Wi	th reference to structure $S1 \rightarrow S2$ is s	synta	ctically correct if :			
Q.16	A	S1 and S2 are structure	В	S1 is pointer to structure and S2 is a member of structure			
	С	S1 is structure and S2 is pointer to structure	D	S2 is structure and S1 is pointer to structure			
	Th	The link between member and variable in structure is established using:					
Q.17	А	Arrow operator (->)	В	Pointer operator (*)			
	С	Pointer operator (&)	D	Dot operator (•)			
	W	What does the statement declare? int (*T)[10];					
Q.18	А	T is only array of 10 elements	В	T is an array of 10 pointers			
	С	T is pointer to an array of 10 integer	D	None			
	Co	Compile time initialization of a structure variable must have:					
Q.19	А	Tag name with keyword struct	В	Name of variable to be declared			
	С	Terminating semicolon	D	All of above			

	Which of following is possible combinat	ch of following is possible combination with structure?					
Q.20	A Structure within structure	В	Arrays within structure				
	C Structure and function	D	All of above				
	The function calloc initialises memory with all bits set to zero.						
Q.21	A True	В	False				
	C Depends on Compiler	D	Depends on standard				
	The operation of putc() function is:						
Q.22	A Create a new file	В	Close a file				
	C Writes a character to a file What function should be used to release needed?	D allo	Reads character to a file cated memory which is not				
Q.23	A dealloc()	В	free()				
	C release()	D	unalloc()				
	Local variables in C are stored in memory which is known as:						
Q.24	A Heap	В	Permanent storage area				
	C ROM	D	Stack				
	Which function gives the current position (in bytes) in the file?						
Q.25	A ftell()	В	fseek()				
	C fpos()	D	fcur()				
Q.26	<pre>main() { a(); } void a() { int x=5; printf("%d",++x); }</pre>						
	A 5	В	6				
	C 0	D	4				
Q.27	<pre>main() { int x=25, y=5; printf("%d", m(x,y)); } int m(int a, int b) { return(a%b); }</pre>						
	A 0	В	25				
	C 5	D	None of above				
Q.28	main() { int C=99, *ptr; ptr = &C printf("%d %u %u", *ptr, ptr, &C);					
	A 99 3500 3502	В	66 3500 3502				
	C 99 3502 3502	D	66 3502 3502				

	{ int x[]= $\{22, 33\};$					
	int *p=x;					
	printf("%d %d ", ++*p,*p);					
	}					
А	33 22	В	22 33			
С	22 23	D	23 22			
main()						
{	struct class					
	{					
	int W, H;					
	$stu = \{60, 170\};$					
	printf("%d %d", stu.H, stu.W);					
}						
А	60 60	В	60 170			
С	170 60	D	170 170			
	A C mai { } A C	<pre>{ int x[]={22, 33}; int *p=x; printf("%d %d ", ++*p,*p); } A 33 22 C 22 23 main() { struct class { int W, H; }stu = {60, 170}; printf("%d %d", stu.H, stu.W); } A 60 60 C 170 60</pre>	<pre>{ int x[]={22, 33}; int *p=x; printf("%d %d ", ++*p,*p); } A 33 22 B C 22 23 D main() { struct class { int W, H; }stu = {60, 170}; printf("%d %d", stu.H, stu.W); } A 60 60 B C 170 60 D</pre>			

PART-2 Subjective Section:

Instructions: 1) Attempt Any Five Questions.

2) Each question carries 07 Marks.

3) Make suitable assumptions wherever necessary.

- Q.1 List out categories of functions in C. Explain any two category with example.
- Q.2 What is Recursion? Write a C program to find factorial using recursive function.
- Q.3 Give benefits of Pointers. Write a C program to exchange two values stored in memory using pointers.
- Q.4 Describe variable declaration in structure and accessing members of structure.
- Q.5 Using structure write a C program: Define a structure student_record to contain name, branch and entry year. Read this information from keyboard and print the same on screen.
- Q.6 What is Dynamic Memory Allocation? Explain memory allocation functions briefly.
- Q.7 Explain different file management functions in C shortly.
