



SET A

Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2018			
Course: Programming Using C/CSBC1002		Semester: Ist	
Programme: BCA		Max. Marks: 100	
Time: 03 hrs.			
Instructions: Assume any missing data. Give appropriate examples and show output.			
SECTION A [20 Marks]			
S. No.		Marks	CO
Q 1.	Discuss sizeof operator in C.	4	CO1
Q 2.	Show conditional operator with its application in C program.	4	CO1
Q 3.	Write a program in C that will display reverse of a string. (apply any method)	4	CO3
Q 4.	Illustrate the non-return type functions using C code.	4	CO3
Q 5.	Explain the concept of UNION in C.	4	CO4
SECTION B [40 Marks]			
Q 6.	Briefly explain the scope, and visibility of following type of variables. <ul style="list-style-type: none"> a) External Variables b) Static Variables c) Auto Variables d) Register Variables 	10	CO2+ CO3
Q 7.	Discuss the importance of functions in C. Demonstrate the use of function using C program to compute the factorial of a number and display its output. Your program must ask the input value from the user to compute its factorial.	10	CO1+ CO3
Q 8.	Develop a program in C using pointers, to take ten integers as an input from the user and find the largest of the element and its position.	10	CO3
Q 9.	Illustrate the difference between structures and arrays in C. Write any small program in C to explain the difference.	10	CO2+ CO4
OR			
	Design structure data type stud_struct containing three members char *name, int enroll, long int SAPID . Develop a program that will input record of five different students : name, enroll and SAPID and finally display their records as an output.		CO2+ CO4

SECTION-C [40 Marks]

Q 10.	<p>a. Develop a program in C to find the sum of all integers greater than 100 AND less than 200 AND divisible by 9 also.</p> <p>b. Write a program in C to show the sum of 10 elements of an Array using pointers. All the elements of an array must be an input from the user.</p> <p>c. Differentiate between malloc and realloc functions of C.</p> <p>d. Explain pointer of a pointer with suitable example.</p>	20	CO2+ CO3+ CO3+ CO4
Q 11.	<p>Develop a C program using switch for Matrix operations, to design a menu that will accept choice from the user as below:</p> <p style="text-align: center;">User's Choice</p> <ol style="list-style-type: none"> 1. Sum of all the elements 2. Sum of Diagonal 3. Display of the Matrix 4. Search the element. 5. Exit <p style="text-align: center;">Enter the choice (1-5)</p> <p>and as per the choice apply operation on MATRIX [3][3] ?</p>	20	CO1+ CO2+ CO3+ CO4
OR			
	<p>Design a C program that shows implementation of the following:</p> <ol style="list-style-type: none"> i. Jump statement ii. Continue statement iii. Sum of pointer type variable iv. String reverse 		CO1+ CO2+ CO3+ CO4

SET B

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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2018			
Course: Programming Using C/CSBC1002		Semester: Ist	
Programme: BCA		Max. Marks: 100	
Time: 03 hrs.			
Instructions: Assume any missing data. Give examples and show output.			
SECTION A [20 Marks]			
S. No.		Marks	CO
Q 1.	Distinguish between continue; and break; statement.	4	CO1
Q 2.	Develop a program in C that can concatenate two different strings. (apply any method)	4	CO2
Q 3.	Distinguish between single dimension and double dimension arrays.	4	CO3
Q 4.	Analyze the output of the following and explain: <pre>int main() { int *ptr1, **ptr2; int X=321; ptr1 = &X; ptr2 = &ptr1; printf("The Value is: %d",**ptr2); }</pre>	4	CO3
Q 5.	Discuss the structure in C. Show structure declaration.	4	CO4
SECTION B [40 Marks]			
Q 6.	Demonstrate the use of functions through call by value and call by reference through a C program? Which one will execute faster, explain?	10	CO3
Q 7.	Define structure data type employee containing three members char *Empname, long int EmpID, int EmpDEPT . Develop a program in C to input records of five different persons and display them as output.	10	CO4
Q 8.	Develop a program in C to compute the sum of two matrices MAT1[3][3] and MAT2[3][3] . Display both the matrix and their sum as an output in matrix form MAT3[3][3] .	10	CO3
Q 9.	Illustrate the difference between UNION and arrays in C. Write any small program in C to explain the difference.	10	CO2+ CO4

	OR		
	Develop a program in C using pointers, to take input from the user for ten integers and find the largest of the element and its position.	10	CO2+ CO3
SECTION-C [40 Marks]			
Q 10.	<p>a. Develop a program in C to find the sum of all integers greater than 200 AND less than 300 AND divisible by 13 also.</p> <p>b. Write a program in C to print the Fibonacci series as per user's choice.</p> <p>c. Differentiate between free and realloc functions of C.</p> <p>d. Explain pointer of a pointer with suitable example.</p>	20	CO1+ CO2+ CO3+ CO4
Q 11.	<p>Develop a C program using switch for MatrixM 3x4 operations, to design a menu that will accept choice from the user as below:</p> <p style="text-align: center;">User's Choice</p> <ol style="list-style-type: none"> 1. Input elements of the Matrix 2. Display the elements in Matrix Format 3. Display sum of all the elements of the Matrix 4. Find the element of the Matrix. 5. Exit <p style="text-align: center;">Enter the choice (1-5)</p> <p>as per the choice apply operation on MATRIXM[3][4]</p>	20	CO1+ CO2+ CO3+ CO4
	OR		
	<p>Design a C program that shows implementation of the following:</p> <ol style="list-style-type: none"> a. Non-Recursive functions. b. Call by refernce 		CO1+ CO2+ CO3+ CO4