

ANURAG Engineering College

(An Autonomous Institution)

I B.Tech I Semester Supplementary Examinations, Jan/Feb-2024

C PROGRAMMING AND DATA STRUCTURES

(COMMON TO CIVIL & EEE)

Time: 3 Hours**Max. Marks: 60****Section – A (Short Answer type questions)****(10 X 1M = 10M)****Answer All Questions**

	Course Outcome	B.T Level	Marks
1. What are the rules for variable declaration?	CO1	L1	1M
2. Find is the output of the following program. #include <stdio.h> void main() { printf("value is = %d",(10++)); }	CO1	L2	1M
3. List the control structures in C?	CO2	L1	1M
4. Explain about an array with example?	CO2	L1	1M
5. Define array of pointers with example?	CO3	L1	1M
6. Compare gets () and scanf ()?	CO3	L2	1M
7. Define Union?	CO4	L1	1M
8. Explain the usage of typedef with example?	CO4	L2	1M
9. List Applications of Stack.	CO5	L1	1M
10. What are the basic operations of queue.	CO5	L2	1M

Section B (Essay Questions)**Answer all questions, each question carries equal marks.****(5 X 10M = 50M)**

11. A) Develop a C Program to biggest of two values using Conditional Operator?	CO1	L3	10M
OR			
B) Develop a C Program to swap two variable values without using temporary variable?	CO1	L3	10M
12. A) Develop a 'C' program to print the Fibonacci sequence.	CO2	L3	10M
OR			
B) Develop a C program to find the square of any number using the function. Example: Input any number for square: 20 Expected Output: The square of 20 is: 400.00	CO2	L3	10M
13. A) Identify how Pointers can pass as functions arguments with example.	CO3	L3	10M
OR			
B) Inspect and discuss the different ways of passing arrays as a parameter to a function.	CO3	L3	10M

14. A) Examine the need of nested structures? Explain with one example. CO4 L3 10M
OR
B) Create two text files and write a C Program to copy the contents of from one file to another. CO4 L3 10M
15. A) Write a C Program to find the key element from the list of elements using Linear Search. CO5 L3 10M
OR
B) Utilize selection sort and rearrange following numbers: CO5 L3 10M
10, 6, 3, 7, 17, 26, 56, 32, 72