

# DRONACHARYA COLLEGE OF ENGINEERING

KHENTAWAS, FARRUKHNAGAR, GURGAON, HR

Department:- CSE

Academic Session: 2020-2021 (May 2021)

Lecture Plan with Assignment questions

Subject with code: PROGRAMMING FOR PROBLEM SOLVING (ESC-CSE 101-G)

Name of Faculty with designation : Ms. Neha Singla, Assistant Professor

S.no.	Date & Day	Sem-Class	Unit	Topic/Chapter covered	Write Lecture Wise Questions
1	Lecture 1	II CSE	I	Introduction to programming, idea of algorithm	Question related to complexity Question related to algorithm design technique
2	Lecture 2	II CSE	I	Steps to solve numerical and logical problems, representation of an algorithm	Questions related to algorithm, program and pseudo code
3	Lecture 3	II CSE	I	Flow charts and pseudo code with examples, practice of algorithm	various algorithms writing
4	Lecture 4	II CSE	I	C programming:- keywords, variables, and data types	C Programming
5	Lecture 5	II CSE	I	Basic, derived and used defined data types, type conversion, examples	Complexity analysis of Linear Search Complexity analysis of Binary Search
6	Lecture 6	II CSE	I	Header files, basic input output functions and statements, compilation, syntax and logical errors	Numerical Numerical
7	Lecture 7	II CSE	I	Object executable code, storage classes	Numerical Numerical
8	Lecture 8	II CSE	I	Storage classes in detail with examples	Competitive Questions on Array and Search Operation
9	Lecture 9	II CSE	I	Arithmetic Expression and precedence with examples	Placement Questions

10	Lecture 10	II CSE	I	Revision of Unit-I	Stack Questions
11	Lecture 11	II CSE	II	Preprocessor, conditional statement with examples	MCQ Test
12	Lecture 12	II CSE	II	Branch statements with examples	Numericals on Expression Conversion
13	Lecture 13	II CSE	II	Iterative statements with examples	Numerical Numerical
14	Lecture 14	II CSE	II	Programming practice of control flow statements	Numerical based on insertion operation Numerical based on searching operation and its complexity
15	Lecture 15	II CSE	II	McQ practice of algorithm, storage classes	Numerical based on deletion operation comparison of various storage classes
16	Lecture 16	II CSE	II	Writing and evaluation of conditional branching	Q1) Numerical based on insertion in stack and queue Q2) Numerical based on deletion
17	Lecture 17	II CSE	II	Evaluation of consequent branching	Numericals on each control flow statement
18	Lecture 18	II CSE	II	MCQ Test on control flow statements	Placement Questions
19	Lecture 19	II CSE	II	Revision of Unit II	Gate Questions of Input output and looping statements
20	Lecture 20	II CSE	II	Revision of various types of operators, comparisons and practice	Numerical based on insertion operation Numerical based on searching operation and its complexity
21	Lecture 21	II CSE	III	Introduction to Arrays (1-d and 2-d), differences	Numerical based on deletion operation Numerical of insertion operation
22	Lecture 22	II CSE	III	Character arrays and strings, arrays with pointers	Numerical based on strings and arrays

23	Lecture 23	II CSE	III	Functions (including built in library's), arrays and functions	Numerical based on function with and without array
24	Lecture 24	II CSE	III	Practice of various programming questions of arrays, strings	Numerical based on arrays, string functions and calling the function
25	Lecture 25	II CSE	III	MCQ practice of functions and arrays with pointers	Complexity analysis of various operations.
26	Lecture 26	II CSE	III	Parameters passing in function, call by value	Comparisons of calling by value and reference
27	Lecture 27	II CSE	III	Call by reference in functions, difference between calling arguments	Placement Questions
28	Lecture 28	II CSE	III	Passing arrays to functions, recursion	Gate Questions of Functions
29	Lecture 29	II CSE	III	Revision of Unit-I, Unit-II	Numericals
30	Lecture 30	II CSE	III	MCQ test of functions, arrays, recursion	Numerical based on recursion and without recursion
31	Lecture 31	II CSE	III	Example programs:- Fibonacci series, finding factorial,	programming questions of recursion
32	Lecture 32	II CSE	III	Ackerman function and practice of competitive programming questions	complexity analysis of recursion and without recursion
33	Lecture 33	II CSE	III	Revision of unit-III	Numericals
34	Lecture 34	II CSE	III	McQ test of gate questions	Placement Questions
35	Lecture 35	II CSE	III	McQ test of placement questions	Questions based upon addressing
36	Lecture 36	II CSE	III	Idea of pointers, defining pointers, use of pointers	Numerical based on pointers and variables

37	Lecture 37	II CSE	IV	Self referential structures , pointers with this	Numericals
38	Lecture 38	II CSE	IV	Introduction to dynamic memory allocation, structures, union,	Difference of structures, union and arrays
39	Lecture 39	II CSE	IV	Defining array of structures,	Numericals
40	Lecture 40	II CSE	IV	File handling	Gate Questions
41	Lecture 41	II CSE	IV	Competitive programming practice of structures	Complexity analysis of various cases (best case, worst case and average case)
42	Lecture 42	II CSE	IV	McQ test of pointers and structures	Complexity analysis of various cases (best case, worst case and average case)
43	Lecture 43	II CSE	IV	Comarisons of arrays and structures with McQ	Complexity analysis of various cases (best case, worst case and average case)
44	Lecture 44	II CSE	IV	Revision of unit-iv	Numericals