KIET Group of Institutions

(Roll Number: _____)

(Department of IT)
Branch/ Course, 6th Semester
CT-2 Examination, (2021-22) EVEN Semester
Software Engineering (KCS-601)

Duration: 2 hrs **Max. Marks: 60**

Section-A

Attempt all the questions of this section **(2X10=20)**

Q. No.		Question	Marks	CO	BL/ KC*
1.	A	Differentiate between verification and validation.	2	2	2/C
	b	Examine the activities carried out in design phase.	2	3	3/C
	c	List the process maturity levels in SEI's CMM	2	2	1/F
	d	List the elements of DFD?	2	2	1/F
	e	Define cohesion of a module.	2	3	1/C
	f	Explain characteristics of a good design.	2	3	2/C
	g	Describe various items of E-R diagram.	2	3	2/F
	h	Define abstraction.	2	3	1/C
	i	Explain desirability of low coupling in a software design.	2	3	2/C
	j	Give formulae of cyclomatic complexity.	2	3	2/C

Section-B

Attempt all the questions of this Section **(5X4=20)**

Q. No.	Question	Marks	CO	BL/ KC*
2	Explain data flow diagram. Explain rules for drawing good data flow diagrams with the help of a suitable example. OR Explain software quality assurance (SQA) with life cycle.	5	2	2/C
3	Explain decision table with an example illustrating how it is useful in information modeling. OR Explain requirement review process using a diagram.	5	2	2/C
4	Explain coupling and cohesion? What roles they play in software design? Describe the properties of best coupling and cohesion giving examples of each. OR Explain Structure Charts. Explain rules for drawing good Structure Charts diagrams with the help of a suitable example.	5	3	4/C
5	Compare function oriented and object-oriented approach of design. OR Compare different types of cohesion with example.	5	3	4/C

Section-C

Attempt all the questions of this Section **(10X2=20)**

Q. No.	Question	Marks	CO	BL/ KC*

6	int fact(int n) {
	if(n == 0)
	{ return 1 ; }
	else
	{ return n * fact (n-1) ; }
	}
		10	3	5/P

- **CO -Course Outcome generally refer to traits, knowledge, skill set that a student attains after completing the course successfully.**
- **Bloom's Level (BL) - Bloom's taxonomy framework is planning and designing of assessment of student's learning.**
- *Knowledge Categories (KCs): **F**-Factual, **C**-Conceptual, **P**-Procedural, **M**-Metacognitive

	Determine Halstead metrics : difficulty, effort, volume, program length for the above code. OR IF A = 354 THEN IF B > C THEN A = B ELSE A = C END IF END IF PRINT A Determine cyclomatic complexity using control flow graph.			
7	Explain the role of software metrics. Describe function point in detail. OR Explain modularity of a module. How is modularity measured in a software architecture?	10	3	5/M

- **CO -Course Outcome generally refer to traits, knowledge, skill set that a student attains after completing the course successfully.**
- **Bloom's Level (BL) - Bloom's taxonomy framework is planning and designing of assessment of student's learning.**
- *Knowledge Categories (KCs): **F**-Factual, **C**-Conceptual, **P**-Procedural, **M**-Metacognitive