Print	ed Pages:2 Sub Code: KCS-601
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	B. TECH. (SEM VI) THEORY EXAMINATION 2022-23 SOFTWARE ENGINEERING
Time	: 3 Hours Total Marks: 100
Note	: Attempt all Sections. If require any missing data; then choose suitably.
	SECTION A
1.	Attempt all questions in brief. $2 \times 10 = 20$
(a	) Define generic software with example.
(ъ	) Define software components.
(c	Mention any two non-functional requirements on software to be developed.
(d	
(e	) What do you mean by horizontal and vertical partitioning?
(f)	What is the software architecture?
(g	) Distinguish between verification and validation:
(h)	Distinguish between alpha and beta testing?
(i)	Mention the advantages of CASE tools.
(j)	Define adaptive maintenance.
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•	SECTION B
2.	Attempt any three of the following:
(a)	Iterative waterfall and spiral model for software lifecycle clean and discuss
(41)	various activities in each phase.
(b)	What are the problems faced in software engineering? Evaluation in detail
(c)	Explain about the structure chart and all its types with contable and all
(d)	Explain boundary value analysis and its significance with Example
(e)	Discuss Software Configuration Management and Assigns tooks in Configuration
	Explain version control and various types of project risks.
	SECTION C
3.	Attempt any one part of the following:
(a)	Explain software characteristics in detail. Discuss the reasons of software crisis.
(b)	Discuss the various Mc Call's quality factors with quality triangle.
1	The state of with quality triangle.

(a) Explain the SEI-CMM model. What do you mean by state of fire fighting.

Attempt any one part of the following:

(b) What are the various stages of requirement engineering process? Explain it with diagrammatic representation.

10x1=10

5. Attempt any one part of the following:

10x1=10

- (a) Draw the software design framework and discuss the elements of design model
- (b) Illustrate the principles of software design. Discuss the characteristics of good software design.
- Attempt any one part of the following:

10x1=10

(a) Draw the control flow graph and Calculate the cyclomatic complexity with three methods and independent paths for the given code-

IF A = 100

THENIF B > C

THEN A = B

ELSE A = C

**ENDIF** 

**ENDIF** 

PRINT A

(b) Discuss the various types of structural testing techniques with example of each.

7. Attempt any one part of the following:

10x1=10

- (a) Draw the general model of software re-engineering and elaborate it.
- (b) Write short notes on:
  - (i) Function Point
  - (ii) COCOMO
  - (iii)Defect, Fault, Failure