Enrollment No: _____   Exam Seat No:_____

C. U. SHAH UNIVERSITY
Winter Examination-2021

Subject Name: Software Engineering

Subject Code: 4TE05SWE1   **Branch: B.Tech (CE)**

Semester: 5   **Date: 15/12/2021**   **Time: 11:00 To 02:00**   **Marks: 70**

Instructions:
  (1) Use of Programmable calculator & any other electronic instrument is prohibited.
  (2) Instructions written on main answer book are strictly to be obeyed.
  (3) Draw neat diagrams and figures (if necessary) at right places.
  (4) Assume suitable data if needed.

Q-1   **Attempt the following questions:**
  a) What is the difference between validation and verification?   **(01)**
  b) What is test-case?   **(01)**
  c) What is level-0 DFD?   **(01)**
  d) What is software maintenance?   **(01)**
  e) What is feasibility study?   **(01)**
  f) List out at least two differences between software and program.   **(01)**
  g) Define: Software process.   **(01)**
  h) What is ERD?   **(01)**
  i) What is the use of CMM?   **(01)**
  j) When can we use spiral model?   **(01)**
  k) Distinguish between alpha and beta testing.   **(01)**
  l) What is the meaning of fan in and fan out in software design?   **(01)**
  m) Define: Data dictionary.   **(01)**
  n) List out two techniques of requirement gathering.   **(01)**

Attempt any four questions from Q-2 to Q-8

Q-2   **Attempt all questions**
  (a) Explain Capability Maturity Model (CMM) in detail.   **(07)**
  (b) Critically compare procedural design and object-oriented design.   **(07)**

Q-3   **Attempt all questions**
  (a) Explain Waterfall process model.   **(07)**
  (b) What is process model? Explain incremental model in detail.   **(07)**

Q-4   **Attempt all questions**
  (a) Write a note on W5HH principle.   **(07)**
  (b) Explain Requirement Engineering Tasks.   **(07)**

Q-5		**Attempt all questions**	
	(a)	Explain various coding standards.	**(07)**
	(b)	Explain COCOMO estimation method with suitable example.	**(07)**

Q-6		**Attempt all questions**	
	(a)	Explain code review process in detail.	**(07)**
	(b)	Discuss about black box testing with its types.	**(07)**

Q-7		**Attempt all questions**	
	(a)	Compare coupling and cohesion. Explain different types of coupling and its effects on software modules.	**(07)**
	(b)	What is user interface? Explain the design rules for UI.	**(07)**

Q-8		**Attempt all questions**	
	(a)	Explain ER diagram with suitable example.	**(07)**
	(b)	Explain Data dictionary with suitable example.	**(07)**