Vidyalankar Institute of Technology
Semester V – Information Technology / Computer Engineering – End Semester Examination

Date: 12-11-2025	PCIT12T / PCCE12T	Software Engineering with WDL / Software Engineering	Scheme: NEP-2020-Autonomy 2023	40 Marks/ 1Hr & 45 Mints

All questions are compulsory.

1	**Solve any two (5 marks each)**	CO
	A	Differentiate between Verification and Validation	CO4
	B	Explain Change Control Process	CO6
	C	Define Coupling and Cohesion. State different types of Cohesion.	CO3
2	**Solve any one (10 marks each)**	
	A	Design a simple HTML form for a user registration page that collects the user's name, email address, and password. Include appropriate form elements, placeholders, and validation attributes like required.	CO5
	B	Describe the responsibilities of each role - Product Owner, Scrum Master, and Development Team in SCRUM and explain how they contribute to a successful Scrum process.	CO1
3	**Solve any one (10 marks each)**	
	A	For a project of 2000 KLOC of semi detached type project with highly capable programmers(0.86) , with high reliability(1.15) and moderate use of software tools(1.00) calculate efforts, time, no. of people required (a = 3.0 , b = 1.12 , c = 2.5, d = 0.35)	CO3
	B	What is the importance of SRS in any Software Project Development? What is the role of Functional and Non Functional requirement in SRS.	CO2
4	**Solve any one (10 marks each)**	

	A	Explain White Box testing. For the following mentioned code snippet, compute the cyclomatic complexity and state all the basis-paths.
		
		int module1 (int x, int y) {
		  while (x!=y){
		    if(x>y)
		      x=x-y,
		    else y=y-x;
		    }
		  return x;
		}
			C05

	B	Explain Management Spectrum with 4P's of Software project management.	CO4