



# Delhi Technical Campus Greater Noida

## Assignment 2

### Instructions:

- All questions are compulsory to attempt.
- Assignment must be submitted in handwritten manner in separate notebook.
- Submit the assignment on or before (Mentioned date).
- Marks will be deducted and analysed as per the submission dates. At late submission marks will be deducted.

**Subject: Software Engineering**

**Subject Code CIC-309**

**Class: B.Tech CSE 5<sup>th</sup>**

**Faculty Name: Dr. Archana Sharma**

**Date of Issue: 28<sup>th</sup> October 2023**

**Date of Submission: 31<sup>st</sup> October 2023**

1	<p>Compute the function point, productivity, documentation, cost per function for the following data:</p> <p>Number of user inputs = 24</p> <p>Number of user outputs = 46</p> <p>Number of inquiries = 8</p> <p>Number of files = 4</p> <p>Number of external interfaces = 2</p> <p>Effort = 36.9 p-m</p> <p>Technical documents = 265 pages</p> <p>User documents = 122 pages</p> <p>Cost = \$7744/ month</p> <p>Various processing complexity factors are: 4, 1, 0, 3, 3, 5, 4, 4, 3, 3, 2, 2, 4, 5.</p>	CO2	L3
2	Justify the need for cost estimation and its advantages? Compare the COCOMO Model in Software Engineering with Function Point and explain in which business model the detailed COCOMO model is needed	CO2	L4
3	Compare the various types of COCOMO model and explain which model is best suited for financial organization.	CO2	L4

4.	How this PUTAM Model is different from the COCOMO Model , justify your answer with shortcomings of the COCOMO Model?	CO2	L4																				
5	How do you measure the cohesion and coupling? Examine the various types of Coupling for ATM System	CO2	L4																				
6	Suppose that a project was estimated to be 400 KLOC. Calculate effort & time for each of 3 modes of development.	CO2	L3																				
	<table><tr><td>Software Product Type</td><td>a</td><td>b</td><td>c</td><td>d</td></tr><tr><td>Organic</td><td>2.4</td><td>1.05</td><td>2.5</td><td>0.38</td></tr><tr><td>Semi-detached</td><td>3.0</td><td>1.12</td><td>2.5</td><td>0.35</td></tr><tr><td>Embedded</td><td>3.6</td><td>1.20</td><td>2.5</td><td>0.32</td></tr></table>			Software Product Type	a	b	c	d	Organic	2.4	1.05	2.5	0.38	Semi-detached	3.0	1.12	2.5	0.35	Embedded	3.6	1.20	2.5	0.32
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7.	Analyse the various approaches of Software Design?	CO2	L4																				
8.	How the Object Oriented design is different from other approaches of Software Design. Construct the Use Case Diagram and Class Diagram of Library Management System?	CO2	L4																				
9.	When doing UI design? Are graphic designers and UI designers are same? Describe the core principles of user interface design?	CO2	L4																				
10	How do human cognition capabilities and limitations influence human-computer user interface designing? Justify your answer.	CO2	L5																				