



Affiliated to GGSIP University, New Delhi
Approved by AICTE & Council of Architecture

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 5th

Faculty Name: Dr. Archana Sharma

Date of Issue: 28th October 2023

Date of Submission: 31st October 2023

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|---|--|-----|----|
| 1 | Compute the function point, productivity, documentation, cost per function for the following data: Number of user inputs = 24 Number of user outputs = 46 Number of inquiries = 8 Number of files = 4 Number of external interfaces = 2 Effort = 36.9 p-m Technical documents = 265 pages User documents = 122 pages Cost = \$7744/ month Various processing complexity factors are: 4, 1, 0, 3, 3, 5, 4, 4, 3, 3, 2, 2, 4, 5. | 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 border="1"> <thead> <tr> <th>Software Product Type</th><th>a</th><th>b</th><th>c</th><th>d</th></tr> </thead> <tbody> <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> </tbody> </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 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 | | | | | | | | | | | | | | | | | | | | |