

01**Class Test (1) Examination: Fall-2025****Course Code: CIS 235 (Batch: 19)****Course Title: Software Engineering****Time: 30 Minutes****Total Marks: 15**

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1. "Alms International" is a small inventory company. Now a days all the companies are using biometric registration for their employee attendance. So the company officials decided to introduce this. So they are need of a software that syncs hardware to the software. So they asked a software company to make a software ASAP develop that cross platform. The software will be integration of small parts. User will identify their specifications on initial stage. The techniques will not be independent in their respect. The total delivery process will be done as a whole. 4

Which SDLC model will be appropriate to develop this system? Justify your answer.
 2. What is software engineering? Explain the differences between software engineering and computer engineering. 4
 3. In which situations is the Agile Model most suitable, and why? 3
 4. What is meant by the term "SDLC"? List and briefly describe its stages. 4

Class Test (2) Examination: Fall-2025

Course Code: CIS 235 (Batch: 19)

Course Title: Software Engineering

Time: 30 Minutes

Total Marks: 15

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| 1. Draw and describe the Scrum framework used in Software Engineering. | 5 |
| 2. Create an activity diagram showing the steps of an Online Shopping Checkout System. | 5 |
| 3. Write five functional requirements and five non-functional requirements for any software system. | 5 |

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Time: 30 Minutes

Class Test (4) Examination: Fall-2025
Course Code: CIS 235 (Batch: 19)
Course Title: Software Engineering

Total Marks: 15

1. Two organic projects have sizes of 12 KLOC and 24 KLOC respectively. Using the Basic COCOMO model, compare their:

a) Effort	5
b) Development time	
c) Team size	
- 2 A login system allows user IDs with lengths between 5 and 15 characters.

a) Identify equivalence classes.	5
b) Provide test inputs for each class.	
- 3 Differentiate between verification and validation with suitable examples.

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Class Test (3) Examination: Fall-2025

Course Code: CIS 235 (Batch: 19)

Course Title: Software Engineering

Total Marks: 15

Time: 30 Minutes

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| 1. How does black box testing differ from white box testing? | 3 |
| 2. Define integration testing. Why is it necessary? | 2 |
| 3. A software can compute the root of an input integer which can assume values in the range of 0 and 5000. Design 3 equivalence class partitioning test cases. | 5 |
| 4. Assume that the size of an organic type software product has been estimated to be <u>3400 lines</u> of source code. Assume that the average salary of software engineers be Rs. <u>15000/-</u> per month. Determine the <u>effort required to develop the software product and the nominal development time.</u> | 5 |