

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(MID SEMESTER EXAMINATION SP2023)

CLASS: BCA  
BRANCH: BCA

SEMESTER : IV  
SESSION : SP2023

TIME: 02 Hours

SUBJECT: CA258 SOFTWARE ENGINEERING

FULL MARKS: 25

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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		CO	BL
<del>Q.1(a)</del>	What are the different stages through which a software product undergoes during its lifetime?	[2] 1	1
<del>Q.1(b)</del>	Identify the two important techniques that software engineering uses to tackle the problem of exponential growth of problem complexity with its size.	[3] 2	2
<del>Q.2(a)</del>	What are the activities undertaken during integration and system testing phase of classical Waterfall Model?	[2] 1	2
<del>Q.2(b)</del>	Explain single variable heuristic cost estimation model.	[3] 2	2
<del>Q.3(a)</del>	List down the characteristics of a good software design technique.	[2] 4	1
<del>Q.3(b)</del>	Compare Preliminary design with detailed design.	[3] 1	4
<del>Q.4(a)</del>	What is difference between cohesion and coupling?	[2] 1	4
<del>Q.4(b)</del>	Explain Context level diagram with a suitable example.	[3] 2	2
<del>Q.5(a)</del>	What is Unified Modeling Language?	[2] 1	2
<del>Q.5(b)</del>	Draw use case of a Library Information System.	[3] 2	3

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**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI**  
**(END SEMESTER EXAMINATION)**

CLASS: BCA  
BRANCH: BCA

SEMESTER : IV  
SESSION : SP/2023

**SUBJECT: CA258 SOFTWARE ENGINEERING**

TIME: 3 Hours

FULL MARKS: 50

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
<del>Q.1(a)</del>	Explain about the activities carried out during each phase of a spiral model. Write the advantages of using spiral model.	[5] 2	2
<del>Q.1(b)</del>	Identify and explain two metrics for software project size estimation.	[5] 2	2
<del>Q.2(a)</del>	State three important parts of a Software Requirement Specification document. List down the Properties of a good SRS document	[5] 3	1
<del>Q.2(b)</del>	Explain the essential activities required to develop the Data Flow Diagram of a system more systematically. Explain what is a data dictionary.	[5] 3	2
<del>Q.3(a)</del>	Differentiate between Object-Oriented analysis and Object Oriented Design Process.	[5] 4	4
<del>Q.3(b)</del>	What does the association relationship among classes represent? Give examples of the association relationship.	[5] 2	3
<del>Q.4(a)</del>	Illustrate the difference between coding standards and coding guidelines.	[5] 1	3
<del>Q.4(b)</del>	Identify equivalence classes for any given problem. Explain what is meant by boundary value analysis.	[5] 2	2
<del>Q.5(a)</del>	Explain what is meant by software reverse engineering. Write down the activities undertaken during reverse engineering.	[5] 4	2
<del>Q.5(b)</del>	What is maintenance cost? How the approximate maintenance cost of a software product is estimated?	[5] 5	2

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