

Semester Lecture Plan

Name of the college: Government College of Arts, Science and Commerce, Sanquelim Goa.							
Name of Faculty: Pooja Bhanudas Naik				Subject: Computer Science			
Paper code and Paper name: CSC101-Problem Solving and Programming			Program/Course: FYBSc		Division:		
Academic year: 2025 - 2026			Semester: I		Total Lectures: 45		
Course Objectives: 1. To understand the concepts and techniques of problems solving. 2. To analyses , understand and build logic to solve basic problems. 3. To design Algorithms and flowcharts for better understanding and documentation for accurate implementation of the problem. 4. To code and implement a well-structured, robust programming logic using a suitable programming language.							
Course Learning Outcome: • Understand the ways and stages of Problem Solving. • Understand basic computing concepts , algorithm design , flowchart design , programming constructs and debugging. • Apply the problem solving and programming concepts in designing solution to simpler problems. • Code and implement a well-structured programming logic using a suitable programming language.							
Month	Lectures From: To:		No. of lectures allotted	Topic, Subtopic to be covered	Exercise/Assignment	ICT Tools	Reference books
June	24/06/2025	28/06/2025	2	Write a set of numbered, step-by-step instructions (a solution) to complete tasks so complete that another person could perform the task without asking questions. Define the knowledge base of this person by listing what you expect the person to know in order to follow your directions.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.

June	30/06/2025	05/07/2025	3	Write a set of numbered, step-by-step instructions (a solution) to complete tasks so complete that another person could perform the task without asking questions. Define the knowledge base of this person by listing what you expect the person to know in order to follow your directions.			
July	07/07/2025	12/07/2025	3	At-least 10 basic programming problems related to Unit III to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
July	14/07/2025	19/07/2025	3	At-least 10 basic programming problems related to Unit III to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
July	21/07/2025	26/07/2025	3	At-least 08 programming problems related to Unit IV to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
July	28/07/2025	02/08/2025	3	At-least 08 programming problems related to Unit IV to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.

August	04/08/2025	09/08/2025	3	At-least 08 programming problems related to Unit V to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
August	11/08/2025	16/08/2025	3	At-least 08 programming problems related to Unit V to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
August	18/08/2025	23/08/2025	3	At-least 06 programming problems related to Unit VI to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
September	01/09/2025	06/09/2025	3	At-least 06 programming problems related to Unit VI to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
September	08/09/2025	13/09/2025	3	At-least 08 programming problems related to Unit VII to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.

September	15/09/2025	20/09/2025	3	At-least 08 programming problems related to Unit VII to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
September	22/09/2025	27/09/2025	3	At-least 06 programming problems related to Unit VIII to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
September	29/09/2025	04/10/2025	3	At-least 06 programming problems related to Unit VIII to be completed during the practical sessions. More programs may be given to the learners to complete and practice as part of their Practice Work.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
October	06/10/2025	11/10/2025	3	Debug & Document at-least 06 problems which you have programmed from week 07 onwards. More programs may be given to the learners to complete and practice as part of their Practice Work.	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.
October	13/10/2025	18/10/2025	3	Revision	Practice problems at home and during practicals.	Smart Board LCD Projector	Maureen Sprankle and Jim Hubbard, Problem Solving and Programming Concepts, Pearson Education India 9 th edition.

***Assessment Rubrics**

Component	Max Marks
ISA 1	7.5
ISA 2	7.5
Practical	25

Project	-
Semester End Examination	60