JHARKHAND Rai University
UGC RECOGNISED UNIVERSITY
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Lesson Plan & Tracking

Programe : BCA	**Session : 2022-25**	**Year : 2022**	**Sem: 1st**
Course: Software Constructs & Tools			
Name of the Faculty: Rajan Kumar Tiwari	**Commencement Date: 29.08.2022**		**Date of Closure: 30.12.22**

Lecture No.	Week	Unit	Topics to be Covered	Blended Mode			Date	Duration	Tracking of Lectures	Related Course Outcome	Signature of Faculty	Signature of HoD	Remarks (if any)
				ICT Tool/Platform/ LMS	Resources	Activity							
1	1	**1**	To discuss course syllabi & course objective and outcome										
2		1	Definition and concept of system, Types of systems & their description										
3		1	Concept of Data and Information-Types, Characteristics & Importance of Information. Relationship between Data & Information										
4	2	1	Concept of Technology and IT, Concept of IS, Relationship between IT and IS										
5		1	Hardware: Definition, Types- Input, Output, CPU and Storage-Internal & External, Examples of each										
6		1	Software: Definition, Types of Software with definition and examples-System, Utility & Application.										
7	3	1	Major Operations in a Computer: Input, Processing, Output & Storage.										
8		1	Introduction to Program related Terminologies with Definition & Example										
9		2	Software, Program, Programming Language: types of programming languages, Syntax/Statement, Semantics										
10		2	Compiler, Interpreter, Difference between Compiler & Interpreter										

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11	4	2	Data Types: two basic data types-Character and Numeric, Functions: definition, parts of a function, operations on a function.										
12		2	Programming Error: Syntax error vs. Semantic error,										
13	5	2	Variable, Constant, Identifier, Difference between Variable & Constant, Assigning value to a variable & constant										
14		3	Introduction to Data Hierarchy: Character, Field, Record, File & Database										
15		3	Understanding the approaches to Problem Solving: Paradigm- Procedural & Object Oriented.										
16	6	3	Understanding the Programming Process: Concept of Programming										
17		3	Program and Programming Logic.										
18		3	Detail explanation of six Programming Phases: Understand the problem, Feasibility study, (require next class also)										
19	7	3	Detail explanation of six Programming Phases: Plan the logic, Code the program, Use software to translate the program to machine language,										
20		3	Detail explanation of six Programming Phases: Test the program, Put the program into production										
21		3	Plan the Logic: Introduction to Program Planning Tools- Flowchart and Pseudo code										
22	8	3	Practice exercises of Flowchart, Pseudo code										
23		4	Assignment 2 (issue & discussion)										

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24		4	Declaring and using variables and constants, performing arithmetic operations										
25	9	4	Introduction to Structured Programming Constructs using Flow Charts: Selection/Decision										
26		4	Introduction to Structured Programming Constructs using Flow Charts: Loop (for loop)										
27		4	Introduction to Structured Programming Constructs using Flow Charts: Loop (while loop)										
28	10	4	Structured Programming Constructs using Flow Charts: Loop (do-while loop)										
29		4	Uses of relational comparison operators, understanding AND, OR logic										
30		4	Understanding advantages of looping using a loop control variable.										
31	11	4	Learning common loop mistakes. Working with nested loops. Practice Exercise										
32		4	Understanding modularization and its advantages,										
33		4	Creating modular programs										
34	12		Revision										
35			Model paper discussion										
36			Model paper discussion										