SOPHIA GIRLS' COLLEGE(AUTONOMOUS), AJMER

Lesson Plan

Name : Mr. Gautam Chaturvedi

Department: Computer Science

SOPHIA GIRLS' COLLEGE(AUTONOMOUS), AJMER

BCA – 104 Fundamentals of 'C' Programming

Month	No. Of Lectures	Areas covered	Other Activities
July	16	Introduction to Language & its Types. Compilation and Execution. 'C' Language: Character Set. Tokens- - Keywords, - Variables, - Constants, - Operators, - Expressions. DataTypes	Assignments
August	16	Type Conversion Input Output Instructions - Printf and scanf, - getch, getchar and gets, - putch, putchar and puts. Arithmetic Instructions: - Hierarchy, - Priority and - Associativity of Operators.	Practical
September	14	Control Instructions: Decision Control (Statements and blocks- if, if-else, conditional operator) nesting. Loop Control (Statements and blocks- while, for, do-while; Nesting Loops).	Conducted test
October	14	Case Control- (Statements and blocks- switch-case,), break, continue, goto statements. Arrays:- Concept of Arrays, One dimensional array & Two dimensional array, Storage strategy, Array Initialization. Memory Map of One Dimensional & Two dimensional Array, Operations on Arrays.	Solving Problem
November	06	Sorting – - Selection Sort, - Bubble Sort & - Insertion Sort.	Revision

Head
Department of Computer Science
Sophia Girls' College
(Autonomous), Ajmer

PRINCIPAL
SOPHIA GIRLS COLLEGE
(AUTONOMOUS)
AJMER

Teacher's Signature..............

COURSE_PLAN_2017-18_MR_GAUTAM_CHATURVEDI

BCA – 304 Object Oriented Programming with C++

Month	No. Of Lectures	Areas covered	Other Activities
July	16	Introduction to OOP's. Its basic features: • Data types (Built- in, User Defined), • variables, • keywords, • constant, • operator, • Expression.	Assignments
August	16	Evolution of OOP, Advantages of OOP Concepts of object oriented language • Objects, • Classes, • Inheritance, • Encapsulation, • Abstraction, • Polymorphism. Methods Comparison between functional programming and OOP approach.	Practical
September	14	Classes: • Data member, • Member functions, • Objects, • Arrays of class objects, • Pointers and classes.	Conducted test and solving problem
October	16	Constructors : • Destructors, • Static Class Member, • Friend functions. • Dynamic memory allocation: New & Delete operator. Inheritance : • Types of inheritance, • Member access control, • Abstract class, • Virtual class & functions.	Practical
November	06	Polymorphism: • Binding, • Function overloading, • Function overriding, • Operator overloading.	Open Book Test and Revision

PRINCIPAL
SOPHIA GIRLS' COLLEGE
(AUTONOMOUS)
AJMER

Head
Department of Computer Science
Sophia Girls' College
(Autonomous), Ajmer
Teacher's Signature

COURSE_PLAN_2017-18_MR_GAUTAM_CHATURVEDI

SOPHIA GIRLS' COLLEGE(AUTONOMOUS), AJMER

BCA –504 VB. Net Programming

Month	No. Of Lectures	Areas covered	Other Activities
July	16	Overview of .NET Framework What is .NET framework, Origins of .NET, Architecture & Components, Common Language Runtime, Common Type System, Common Language Specification, MSIL, Framework Base Classes & Namespaces, IDE, .NET Languages.	Assignments
August	18	Visual Basic Language Features: Introduction to VB.NET, Program Structure and Code Conventions, Data Types & Variables, Constants & Enumerations, Operators,	Practical
September	18	Decision making & Looping, Arrays & Strings, Date & Time, Procedures in VB.	Conducted test
October	18	Building a User Interface: The Visual Basic Environment, Event-Driven Programming, Building Forms: The Basics & Advanced Techniques.	Practical
November	12	Working with Traditional Controls: • Label Control, • Text Box, • Creating Buttons, • Option Buttons, • List Box, • Combo Box.	Open Book Test and Revision

PRINCIPAL
SOPHIA GIRLS' COLLEGE
(AUTONOMOUS)
AJMER

Head
Department of Computer Science
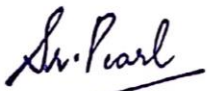Sophia Girls' College
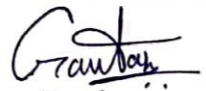(Autonomous) , Ajmer

Teacher's Signature..............

SOPHIA GIRLS' COLLEGE(AUTONOMOUS), AJMER

BCA – 204 Fundamentals of 'C' Programming - II

Month	No. Of Lectures	Areas covered	Other Activities
December	16	Functions (Structure and Block):- Declaration, Calling (Call by value, Call by Suggested), Definition of functions, Recursion, Storage Class (auto, static, register, extern), Scope rules (Local, Global).	Assignments
January	16	Pointers:- Pointers and addresses, Pointers as Function arguments, Pointers and Arrays, Address Arithmetic, Character Pointers and functions, pointers arrays, pointer to functions.	Practical
February	14	String Handling and string functions (strlen, strcat, strcmp, strcmpi, strrev, strcpy). Structures and Union (Structure and Block) : Basics, Structures and Functions.	Conducted test
March	14	Arrays of Structures, Pointers to structures, typedef. File handling - opening, closing, reading, writing & appending in files.	Problem solving and Revision

PRINCIPAL
SOPHIA GIRLS' COLLEGE
(AUTONOMOUS)
AJMER

Head
Department of Computer Science
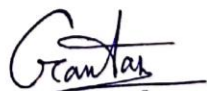Sophia Girls' College
(Autonomous) , Ajmer

BCA – 405 Java Programming – II
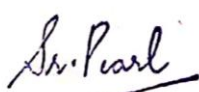
Month	No. Of Lectures	Areas covered	Other Activities
December	16	PACKAGE AND INTERFACES: Defining package, Concept of classpath, access modifiers, importing package, Defining and implementing interfaces	Assignments
January	16	STRING HANDLING: String constructors, special string operation, Character extraction, searching and comparing string, strings, string Buffer class.	Practical
February	14	EXCEPTION HANDLING: Exception handling fundamentals, Exception types, try, catch and multiple catch statements. Usage of throw, throws and finally.	Conducted test
March	14	THREADING: Multithreading, multiprocessing, life cycle of thread, Garbage collection, and deadlock. File handling: input and output stream. Applet: applet Fundamentals, applet life cycle, using paint method and drawing polygon	Practical and Revision

PRINCIPAL
SOPHIA GIRLS' COLLEGE
(AUTONOMOUS)
AJMER

Head
Department of Computer Science
Sophia Girls' College
(Autonomous), Ajmer

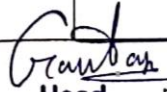# SOPHIA GIRLS' COLLEGE(AUTONOMOUS), AJMER

BCA –604 C# Programming

Month	No. Of Lectures	Areas covered	Other Activities
December	12	Introduction: .Net Framework, CLR, CTS, CLS, FCL & Advantages of .Net Framework. C# : Evolution, History & Overview. Fundamentals of C#: Identifiers, Keywords, Literals, Punctuators, Operators. Data Types : Value Type & ReferenceType. Expressions: Implicit & Explicit Conversion (Boxing & Unboxing).	Open Book Test
January	18	Program Flow Controls: Decision Control -(if, if – else, Nesting), Switch, Ternary. Loop – (while, do-while, for, foreach, Nesting). break, continue, goto statements. User Defined Data Types: Arrays (Single, Multi & Jagged), Structure & Enum. Introduction of OOP: Objects, Class, Encapsulation, Polymorphism, Inheritance.	Practical and Solving Previous Year Papers
February	16	Class: Structure of Class, Objects, Class Modifiers (private, public, protected, internal, protected internal, abstract, sealed) Constructors (default, parameterized, Copy), Destructor. This reference, Static, Constant and Readonly members. Methods: Parameter Passing (Value, Reference, Params). Inheritance, Polymorphism, Interfaces: Concept, Types, Modifiers (Virtual, Override, New).	Conducted Test
March	16	Method Overloading, Operator Overloading. Properties, Indexers, Delegates: Single Cast delegate, Multi Cast delegates, Passing delegate as parameter. Events: Concept & Declaration, Event Handlers. Errors & Exceptions: Types of Errors, Try-Catch, Nested Try blocks, Throwing own exceptions, Multithreading: Creating & Starting a Thread, Scheduling, Synchronization.	Revision

Sr. Pearl

PRINCIPAL
SOPHIA GIRLS' COLLEGE
(AUTONOMOUS)
AJMER

Head
Department of Computer Science
Sophia Girls' College
(Autonomous) , Ajmer

MSC – 203 Programming in Visual Basic.Net

Month	No. Of Lectures	Areas covered	Other Activities
December	15	Introduction to Visual Basic .NET IDE and its features, .NET framework, CLR. Language basics: data type, operators. Control statements: branching and looping. • .NET Controls Forms, • text boxes, • labels, • command button, • radio button, • option buttons, • check boxes, • list boxes and • combo boxes.	Open Book Test
January	25	Introduction to ActiveX controls. Strings and Arrays Working with Arrays, array resizing, System Array, Class, Manipulation of string, string functions for comparison, concatenation, copy, replace, substring, length.	Practical and Solving Previous Year Papers
February	22	Working with Classes, Class properties and methods, Attaching a class with a form Inheritance: derived from existing classes, Overriding methods from base class.	Conducted Test
March	25	Exception Handling, Types of errors, Structured and unstructured exceptions, Tracing Errors: • breakpoints, • watch, • quick Watch, • autos, • locals, • call stack. Database Access ADO.NET and its Components, datasets, data adapters, server explorer, binding controls to database.	Revision

PRINCIPAL
SOPHIA GIRLS' COLLEGE
(AUTONOMOUS)
AJMER

PRINCIPAL
SOPHIA GIRLS' COLLEGE
(AUTONOMOUS)
AJMER

Head
Department of Computer Science
Sophia Girls' College
(Autonomous), Ajmer

Teacher's Signature