DEPARTMENT OF COMPUTER SCIENCE

COURSE CURRICULUM & MARKING SCHEME

PROGRAM CODE: DPMS07

Scheme of M. Sc. Computer Science Under Semester System

(Based on CBCS)

SESSION: 2025-26

D. P. VIPRA COLLEGE,

(AN AUTONOMOUS INSTITUTION)

OLD HIGH COURT ROAD BILASPUR

(CHHATTISGARH)

RE-ACCREDIATED "A" GRADE BY NAAC Phone No: 07752-424497

Website: www.dpvipracollege.ac.in Email: dpvipracollege@gmail.com

Scheme of M. Sc. Computer Science Under Semester System

Program Code & Name: DPMS07 - M.Sc. (Computer Science)

Session 2025-26

Semester	Course Code	Course Name	Credit			Total Credit	Marks			
							ESE	CIA	Total	
			L	T	P				MAX	MIN
First	MCST101	Computer Architecture	3	1	-	4	70	30	100	40
	MCST102	Advanced Computer Network	3	1	-	4	70	30	100	40
	MCST103	JAVA Programming	3	1	-	4	70	30	100	40
	MCSE104	Operating System Concepts	3	1	-	4	70	30	100	40
	MCSP101	Programming Lab in JAVA	-	-	2	2	35	15	50	20
	MCSP102	Programming Lab in Linux	-	-	2	2	35	15	50	20
						20	**350**	**150**	**500**	**200**
Second	MCST201	RDBMS Using ORACLE	3	1	-	4	70	30	100	40
	MCST202	Data Structure with C++	3	1	-	4	70	30	100	40
	MCST203	Software Engineering	3	1	-	4	70	30	100	40
	MCSE201	Cryptography and Network Security	3	1	-	4	70	30	100	40
	MCSP201	Programming Lab in RDBMS	-	-	2	2	35	15	50	20
	MCSP202	Programming Lab in Data Structure in C++	-	-	2	2	35	15	50	20
					Total	**20**	**350**	**150**	**500**	**200**
Third	MCST301	Theory of Computation	3	1	-	4	70	30	100	40
	MCST302	Data Science using Python	3	1	-	4	70	30	100	40
	MCST303	ASP.NET using C#	3	1	-	4	70	30	100	40
	MCSE304	Mobile Computing	3	1	-	4	70	30	100	40
	MCSE305	Data Mining and Data Warehousing	3	1	-	4	70	30	100	40
	MCSP301	ASP.NET using C# Lab - I	-	-	2	2	35	15	50	20
	MCSP302	Python Programming Lab - II	-	-	2	2	35	15	50	20
					Total	**20**	**350**	**150**	**500**	**200**
Fourth	MCST401	Compiler Design	3	1	-	4	70	30	100	40
	MCST402	Artificial Intelligence & Machine Learning	3	1	-	4	70	30	100	40
	MCST403	IOT based Programming	3	1	-	4	70	30	100	40
	MCSE404	Advanced Neural Network & Deep Learning	3	1	-	4	70	30	100	40
	MCSE405	Cloud Computing	3	1	-	4	70	30	100	40
	MCSP401	Major Project	-	-	4	4	70	30	100	40
					Total	**20**	**350**	**150**	**500**	**200**
					Grand Total	**80**	**1400**	**600**	**2000**	**800**

Program Code and Name	**DPMS07, M.Sc. (COMPUTER SCIENCE)**			Semester	**III**
Exam Code and Name	**2073 - M. Sc. COMPUTER SCIENCE THIRD SEMESTER**			Paper	**I**
Course Code	**MCST301**			Course Type	**T**
Course Title	**Theory of Computation**				
Total Credit	**4**				
Total Marks	CIA: 30	ESE: 70	Max Marks: 100	Min. Pass. Marks: 40	
Prerequisites (if any)					
Course Outcomes	CO1: To Understand the concept of automata and transition systems. CO2: To Understand the relationship between languages, automata, and grammars. CO3: To Analyze derivation trees and ambiguity in CFGs, and design PDAs to recognize CFLs. CO4: To Evaluate the Turing Machine model, its representation, and its power in accepting languages.				

Contents of Course		
Unit	**Contents**	**No. of Period**
I	**Theory of Automata:** Definition of an automaton, Transition system, Acceptability of a string by FA, Nondeterministic finite state machine, Designing of DFA and NFA, Equivalence of DFA and NFA, Conversion of NFA to DFA, M Minimization of finite automata, Mealy and Moore models, Minimization of finite automata.	15
II	**Formal Languages, Regular Sets and Regular Grammars:** Definition, Languages and their relation, Chomsky classification of language, Regular expression, and Finite automaton, Pumping Lemma for regular sets, Application of Pumping lemma, Closure property of regular sets, Regular sets and regular grammar.	15
III	**Context-free Language:** Context fee language and derivation trees, Ambiguity in context free languages, Simplification of context free languages: (left recursion, Unit production elimination, Eliminating null values) Normal forms of context free languages. **Pushdown Automation:** Definition, Acceptance by PDA, Designing PDA, Push down automation and Context free languages, Parsing and Pushdown automata.	15
IV	**Turing Machine:** Turing Machines model, Representation of TM, Languages acceptability by TM, Design of TM, Introduction: Universal Turing Machines and Halting problem, Introduction: Linear bounded automata and languages.	15
	Total no. of Lectures	60

Text books	1. J.E.Hopcroft, R.Motwani and J.D Ullman, "Introduction to Automata Theory, Languages and Computations", Second Edition, Pearson Education, 2003
Reference books	1. K L P Mishra "Theory of Computation",3rd Edition PHI Publication. 2. G.PSaradhiVarma and B. ThirupathiRao , " Theory and Computation Formal Languages and Automata Theory",2005, SCITECH publication. 3. H.R.Lewis and C.H.Papadimitriou, "Elements of The theory of Computation", Second Edition, Pearson Education/PHI, 2003 4. J.Martin, "Introduction to Languages and the Theory of Computation", Third Edition, TMH, 2003.

Assessment and Evaluation		
Suggested Continuous Evaluation Methods:		
Maximum Marks: 100 Marks	Continuous Internal Assessment (CIA): 30 Marks	End Semester Exam (ESE) : 70 Marks
Continuous Internal Assessment (CIA)	Internal Test/Quiz- (2): 20 & 20 Assignment / Seminar: 10 Total Marks: 30	Better marks out of the two Test / Quiz + obtained marks is Assignment shall be considered against **30** Marks
End Semester Exam (ESE)	**Three Section - A, B & C** Section A: Q1. Objective- 10 x 1 = 10 Mark; Section B: Long Answer type questions 1 out of 2 from each unit- 4 x 5 = 20 Marks; Section C: Descriptive answer type questions 1 out of 2 from each unit- 4 x 10 = 40 Marks;	

Program Code and Name	**DPMS07, M.Sc. (COMPUTER SCIENCE)**		Semester	**III**
Exam Code and Name	**2073 - M. Sc. COMPUTER SCIENCE THIRD SEMESTER**		Paper	**II**
Course Code	**MCST302**		Course Type	**T**
Course Title	**Data Science Using Python**			
Total Credit	**4**			
Total Marks	CIA: 30	ESE: 70	Max Marks: 100	Min. Pass. Marks: 40
Prerequisites (if any)				
Course Outcomes	CO1: To Python programs using variables, data types, control structures, loops, and functions. CO2: To develop proficiency in data handling using libraries like NumPy, Pandas, and Seaborn. CO3: Understand and apply the data science process, including data preprocessing. CO4: To apply clustering methods and dimensionality reduction techniques like PCA and SVD.			

Contents of Course		
Unit	**Contents**	**No. of Period**
I	**Introduction to Python:** Introduction to python, variable, data type, control statements, loop statements, functions. **Python for Data Science:** Numpy, Pandas, Matplotlib, Seaborn etc	15
II	**Introduction to Data Science:** Introduction to data science, Overview of the data science process, Data Preprocessing.	15
III	**Machine Learning:** Introduction to machine learning, Linear regression and regularization, Model selection and evaluation, Classification: KNN, decision trees, SVM.	15
IV	**Clustering:** K-means, hierarchical clustering, Dimensionality reduction: PCA and SVD, Text mining and information retrieval, Network analysis.	15
	Total no. of Lectures	60

Text books	1. Han, J., Kamber, M., Pei, J. Data mining concepts and techniques. Morgan Kaufmann, 2011.
Reference books	1. James, G., Witten, D., Hastie, T., Tibshirani, R. An introduction to statistical learning with applications in Springer, 2013. 2. Hastie, T., Tibshirani, R., Friedman, J. The elements of statistical learning 2nd edition Springer. 3. Murphy, K. Machine learning: A probabilistic perspective, MIT Press. 4. Manning :Big Data using Python

Assessment and Evaluation		
Suggested Continuous Evaluation Methods:		
Maximum Marks: 100 Marks	Continuous Internal Assessment (CIA): 30 Marks	End Semester Exam (ESE) : 70 Marks
Continuous Internal Assessment (CIA)	Internal Test/Quiz- (2): 20 & 20 Assignment / Seminar: 10 Total Marks: 30	Better marks out of the two Test / Quiz + obtained marks is Assignment shall be considered against **30** Marks
End Semester Exam (ESE)	**Three Section - A, B & C** Section A: Q1. Objective- 10 x 1 = 10 Mark; Section B: Long Answer type questions 1 out of 2 from each unit- 4 x 5 = 20 Marks; Section C: Descriptive answer type questions 1 out of 2 from each unit- 4 x 10 = 40 Marks;	

Program Code and Name	**DPMS07, M.Sc. (COMPUTER SCIENCE)**		Semester	**III**
Exam Code and Name	**2073 - M. Sc. COMPUTER SCIENCE THIRD SEMESTER**		Paper	**III**
Course Code	**MCST303**		Course Type	**T**
Course Title	**ASP.NET Using C#**			
Total Credit	**4**			
Total Marks	CIA: 30	ESE: 70	Max Marks: 100	Min. Pass. Marks: 40
Prerequisites (if any)				
Course Outcomes	CO1: To Design web applications using ASP.NET CO2: Develop the console and GUI applications using C# .NET CO3: To Create the dynamic web page using ASP.NET Controls which interact with databases. CO4: To Create database driven ASP.NET web applications and web services.			

Contents of Course		
Unit	**Contents**	**No. of Period**
I	**Introduction to .NET Framework:** Objectives of .NET Framework, Architecture of .NET Framework, Characteristics of .NET Framework, Assembly, Namespace, Common Language Runtime (CLR) **Programming with C#:** Introduction to C#, Structure of C#, Variables, Type casting, Type Conversion methods, Basic Input/Output in C#, C# Operators	15
II	**Strings in C#:** C# Strings, Methods of String, Access Strings Control flow statements in C#: Conditional Branching statements, Looping statements. Arrays in C#: Introduction to Array, Looping in Array, Methods of Array. **Object Oriented Programming in C#:** C# Object and Class, Constructor, Destructor, this, static, C# properties, Inheritance, Polymorphism, Abstraction Interface, Exception Handling	15
III	**Working with Windows Applications:** Integrated development Environment (IDE), Common Properties of Window Form, Single Document Interface (SDI), Multiple Document Interface (MDI). **GUI Programming:** use of Tools: Label, Textbox and Button Control, DateTimePicker, RadioButton, CheckBox, ListBox, CheckedListBox, PictureBox Control, Timer. **Dialog Controls:** ColorDialog, FontDialog, OpenFileDialog, SaveFileDialog. **Printing Controls:** PageSetup Control, PrintDialog Control, PrintPreview Control	15
IV	**Database Programming:** Introduction to ADO.NET, Features of ADO.NET, Architecture of ADO.NET, Connected and Disconnected Architecture, Disconnected Architecture, Difference between Connected and Disconnected Architecture, Database Connectivity, Data Binding, Data Grid Control.	15
	Total no. of Lectures	60

Text books	1. C#.NET Code Wizard: A Tour to C#|.NET Framework A Complete Book by Dr. Richa Handa
Reference books	1. C# 4.0 the Complete Reference by Herbert Schildt 2. Latest version of Andrew Trolsens C# text from Apress(Pro C# 5.0 and the .NET Framework 4.5) 3. Robert Powel, Richard Weeks, C# and the .NET Framework, Techmedia

Assessment and Evaluation		
Suggested Continuous Evaluation Methods:		
Maximum Marks: 100 Marks	Continuous Internal Assessment (CIA): 30 Marks	End Semester Exam (ESE) : 70 Marks
Continuous Internal Assessment (CIA)	Internal Test/Quiz- (2): 20 & 20 Assignment / Seminar: 10 Total Marks: 30	Better marks out of the two Test / Quiz + obtained marks is Assignment shall be considered against **30** Marks
End Semester Exam (ESE)	**Three Section - A, B & C** Section A: Q1. Objective- 10 x 1 = 10 Mark; Section B: Long Answer type questions 1 out of 2 from each unit- 4 x 5 = 20 Marks; Section C: Descriptive answer type questions 1 out of 2 from each unit- 4 x 10 = 40 Marks;	

Program Code and Name	**DPMS07, M.Sc. (COMPUTER SCIENCE)**		Semester	**III**
Exam Code and Name	**2073 - M. Sc. COMPUTER SCIENCE THIRD SEMESTER**		Paper	**IV**
Course Code	**MCSE304**		Course Type	**T**
Course Title	**Mobile Computing**			
Total Credit	**4**			
Total Marks	CIA: 30	ESE: 70	Max Marks: 100	Min. Pass. Marks: 40
Prerequisites (if any)				
Course Outcomes	CO1: To Understand mobile application fundamentals, environments, and development tools. CO2: To Explain mobile application lifecycle and platform differences. CO3: To Design user interfaces and implement app features like threads, services, and notifications. CO4: To Use mobile APIs for telephony, multimedia, location, and asynchronous tasks.			

Contents of Course		
Unit	**Contents**	**No. of Period**
I	**Introduction of Mobile Application:** Fundamentals of mobile applications, mobile Application environment and mobile operating Systems, IDEs and various Tools.	15
II	**Introduction of Mobility and Building blocks of Mobile Application:** Mobile Application development Activity life cycle, Mobile Landscape, Mobile Platforms, overview of various Mobile application tools.	15
III	**Mobile Operating Systems:** Android library and its characteristic, iOS library and its characteristic, Windows Phone 7 library and its characteristic.	15
IV	**App functionality-based User interface and Mobile functions:** Application user Interface designing, User Interface Element, Menu, interaction among the activities. Threads, Asynchronous task, Service – states and life cycles, Notifications, Broadcast receivers, Telephony and SMS API, Animation API multimedia –Audio/Video playback and record, location aware etc.	15
	Total no. of Lectures	60

Text books	1. Android Programming, Bill Philips and Brain Hardy.
Reference books	1. Professional Mobile Application Development, Jeff Mcwherter, Scott Gowell, WroxPublisher, 1st Ed. 2012 2. Sams Teach Yourself Android Application Development in 24 Hrs, Lauren Darcy and Shane Conder, 1sted.

Assessment and Evaluation		
Suggested Continuous Evaluation Methods:		
Maximum Marks: 100 Marks	Continuous Internal Assessment (CIA): 30 Marks	End Semester Exam (ESE) : 70 Marks
Continuous Internal Assessment (CIA)	Internal Test/Quiz- (2): 20 & 20 Assignment / Seminar: 10 Total Marks: 30	Better marks out of the two Test / Quiz + obtained marks is Assignment shall be considered against **30** Marks
End Semester Exam (ESE)	**Three Section - A, B & C** Section A: Q1. Objective- 10 x 1 = 10 Mark; Section B: Long Answer type questions 1 out of 2 from each unit- 4 x 5 = 20 Marks; Section C: Descriptive answer type questions 1 out of 2 from each unit- 4 x 10 = 40 Marks;	

Program Code and Name	**DPMS07, M.Sc. (COMPUTER SCIENCE)**		Semester	**III**
Exam Code and Name	**2073 - M. Sc. COMPUTER SCIENCE THIRD SEMESTER**		Paper	**V**
Course Code	**MCSE305**		Course Type	**T**
Course Title	**Data Mining and Data Warehousing**			
Total Credit	**4**			
Total Marks	CIA: 30	ESE: 70	Max Marks: 100	Min. Pass. Marks: 40
Prerequisites (if any)				
Course Outcomes	CO1: To Preprocess the data for mining applications. CO2: To Apply the association rules for mining the data. CO3: To Design and deploy appropriate classification techniques. CO4: To Evaluate various mining techniques on complex data objects.			

Contents of Course		
Unit	**Contents**	**No. of Period**
I	**Data Mining:** What is Data Mining, Why it is important?, Mining on what kind of data?, data mining functionality, Steps of Data mining, knowledge discovery. **Data Warehouse:** Meaning, definition, OLTP Vs. OLAP, Data warehouse architecture, Three Tier Architecture of data warehouse, Data Cube & OLAP technology.	15
II	**Association Rule:** Basic Concept, Frequent item set mining: Apriori algorithm etc., Mining various kind of association rules: Mining Multilevel association rules, Mining multidimensional association rules.	15
III	**Data Preprocessing:** Data cleaning, Data integration, Chi-square test, Data transformation, Data reduction, Dimensionality reduction: Principal component analysis (PCA), factor analysis (FA), Data compression: discrete Fourier Transform (DFT), discrete cosine transform (DCT), discrete Wavelet transform (DWT)	15
IV	**Classification and Prediction:** What is classification and prediction? Decision tree algorithms: CART, ID3 C4.5, CHAID, Bayesian classification, Rule based classification, Classification by backpropagation, Support: vector machine, Association classification and other classification methods. Prediction using Regression and Neural Network methods, Accuracy measures, Ensemble methods. **Cluster Analysis:** What is luster analysis? Partitioning method, feature selection for financial data, Health care data etc.	15
	Total no. of Lectures	60

Text books	1. Data Mining Methods for Knowledge Discovery, Cios, Pedrycz, Swiniarski,Kluwer Academic Publishers, London – 1998.
Reference books	1. Data Mining: Concepts and Techniques, Jiawei Han, Micheline Kamber, MorganKaufmann Publishes (Elsevier, 2nd edition), 2006

Assessment and Evaluation		
Suggested Continuous Evaluation Methods:		
Maximum Marks: 100 Marks	Continuous Internal Assessment (CIA): 30 Marks	End Semester Exam (ESE) : 70 Marks
Continuous Internal Assessment (CIA)	Internal Test/Quiz- (2): 20 & 20 Assignment / Seminar: 10 Total Marks: 30	Better marks out of the two Test / Quiz + obtained marks is Assignment shall be considered against **30** Marks
End Semester Exam (ESE)	**Three Section - A, B & C** Section A: Q1. Objective- 10 x 1 = 10 Mark; Section B: Long Answer type questions 1 out of 2 from each unit- 4 x 5 = 20 Marks; Section C: Descriptive answer type questions 1 out of 2 from each unit- 4 x 10 = 40 Marks;	

Program Code and Name	**DPMS07, M.Sc. (COMPUTER SCIENCE)**			Semester	**III**
Exam Code and Name	**2073 - M. Sc. COMPUTER SCIENCE THIRD SEMESTER**			Paper	**I**
Course Code	**MCSP301**			Course Type	**P**
Course Title	**Lab I: ASP.NET using C# Programming**				
Total Credit	**2**				
Total Marks	CIA: 15	ESE: 35	Max Marks: 50	Min. Pass. Marks: 20	
Prerequisites (if any)					
Course Outcomes	CO1: Develop dynamic web applications using ASP.NET and C# programming concepts. CO2: Design and manage web forms, controls, validation techniques, and event-driven applications. CO3: Implement database connectivity using ADO.NET for data storage and retrieval operations. CO4: Build, test, and deploy secure and user-friendly web applications using modern ASP.NET technologies.				

Contents of Laboratory		
Unit	**Contents**	**No. of Period**
I	1. Write a C# program to add two matrix using Array. 2. Write a C# program using methods of Array such as Length of String, Sorting, Copy String and Reverse String. 3. Write a C# program to find if a positive integer is a prime number or not? 4. Write a C# program of Constructor & Destructor. 5. Write a C# program of Inheritance. 6. Write a C# program of Polymorphism. 7. Write a C# program of exception handling using try, catch and finally & throw. 8. Write a C# window program for Background Image, Font and timer control. 9. Write a C# window program using MDI. 10. Write a C# window program of "Student Registration form" using Textbox, Label, Button, Checkbox, Radio button and Picture control . 11. Write a C# window program using ColorDialog. 12. Write a C# window program using FontDialog. 13. Write a C# window program using OpenFileDialog. 14. Write a C# window program using SaveFileDialog. 15. Write a C# window program using Printing Control. 16. Perform Database connectivity in "Student Registration form" given in question no 11. 17. Perform Database connectivity and insert new records in "Student Registration form" given in question no 11. 18. Perform Database connectivity and perform searching of student record through student ID in "Student Registration form" given in question no 11. 19. Perform Database connectivity and Delete student record through student ID in "Student Registration form" given in question no 11. 20. Display student records in DataGrid after Database connectivity.	60

Text books	1. C#.NET Code Wizard: A Tour to C#|.NET Framework A Complete Book by Dr. Richa Handa
Reference books	1. C# 4.0 the Complete Reference by Herbert Schildt 2. Latest version of Andrew Trolsens C# text from Apress(Pro C# 5.0 and the .NET Framework 4.5) 3. Robert Powel, Richard Weeks, C# and the .NET Framework, Techmedia

Assessment and Evaluation		
Suggested Continuous Evaluation Methods:		
Maximum Marks: 50 Marks	Continuous Internal Assessment (CIA): 15 Marks	End Semester Exam (ESE) : 35 Marks
Continuous Internal Assessment (CIA)	Internal Test/Quiz- (2): 10 & 10 Assignment / Seminar: 5 Total Marks: 15	Better marks out of the two Test / Quiz + obtained marks is Assignment shall be considered against **15** Marks
End Semester Exam (ESE)		

Program Code and Name	**DPMS07, M.Sc. (COMPUTER SCIENCE)**			Semester	**III**
Exam Code and Name	**2073 - M. Sc. COMPUTER SCIENCE THIRD SEMESTER**			Paper	**II**
Course Code	**MCSP302**			Course Type	**P**
Course Title	**Lab II: Python Programming**				
Total Credit	**2**				
Total Marks	CIA: 15	ESE: 35	Max Marks: 50	Min. Pass. Marks: 20	
Prerequisites (if any)					
Course Outcomes	CO1: Understand and apply fundamental concepts of Python programming including data types, operators, functions, and modules. CO2: Develop Python programs using control structures, file handling, exception handling, and object-oriented programming concepts. CO3: Implement data processing and problem-solving applications using Python libraries and packages. CO4: Design, test, and debug Python applications to solve real-world computational problems efficiently.				

Contents of Laboratory		
Unit	**Contents**	**No. of Period**
I	**Basic Python Programs** 1. N-th Fibonacci number 2. Check if a given number is Fibonacci number? **Array Programs** 3. Reversal algorithm for array rotation 4. Split the array and add the first part to the end 5. Find reminder of array multiplication divided by n **List Programs** 6. Split and join a string 7. Check if a given string is binary string or not 8. Replace duplicate Occurrence in String 9. Replace multiple words with K 10. Permutation of a given string using inbuilt function 11. Check for URL in a String 12. Execute a String of Code 13. String slicing to rotate a string 14. String slicing to check if a string can become empty by recursive deletion 15. Counter| Find all duplicate characters in string 16. Replace all occurrences of a substring in a string **Tuple Programs** 17. Find the size of a Tuple 18. Create a list of tuples from given list having number and its cube in each tuple 19. Join Tuples if similar initial element 20. Extract digits from Tuple list 21. All pair combinations of 2 tuples **Searching and Sorting Programs** 22. Binary Search (Recursive and Iterative) 23. Linear Search 24. Insertion Sort 25. Recursive Insertion Sort 26. Quicksort 27. Iterative Quick Sort 28. Selection Sort 29. Bubble Sort 30. Merge Sort	60

	Pattern Printing Programs 31. Print the pattern 'G' 32. Print an Inverted Star Pattern 33. Print double sided stair-case pattern 34. Print with your own font **Date-Time Programs** 35. Get Current Time 36. Get Current Date and Time 37. Find yesterday's, todays and tomorrow's date 38. Convert time from 12 hour to 24-hour format 39. Find difference between current time and given time 40. Create a Lap Timer 41. Convert date string to timestamp 42. Convert timestamp string to datetime object? 43. Find number of times every day occurs in a Year **Python File Handling Programs** 44. Read file word by word 45. Read character by character from a file 46. Get number of characters, words, spaces and lines in a file 47. Count the Number of occurrences of a key-value pair in a text file 48. Finding 'n' Character Words in a Text File 49. Obtain the line number in which given word is present 50. Count number of lines in a text file 51. Remove lines starting with any prefix 52. Eliminate repeated lines from a file 53. Read List of Dictionaries from File 54. Append content of one text file to another 55. Copy odd lines of one file to other 56. Merge two files into a third file 57. Reverse a single line of a text file 58. Reverse the content of a file and store it in another file 59. Reverse the Content of a File using Stack **More Popular Python Programs** 60. Find a more important or popular list of Python programming examples below and upscale your Python programming skills. 61. Reverse a linked list 62. Find largest prime factor of a number 63. Efficient program to print all prime factors of a given number 64. Product of unique prime factors of a number 65. Find sum of odd factors of a number 66. Program for Coin Change 67. Program for Tower of Hanoi	

Text books	1. C#.NET Code Wizard: A Tour to C#|.NET Framework A Complete Book by Dr. Richa Handa
Reference books	4. C# 4.0 the Complete Reference by Herbert Schildt 5. Latest version of Andrew Trolsens C# text from Apress(Pro C# 5.0 and the .NET Framework 4.5) 6. Robert Powel, Richard Weeks, C# and the .NET Framework, Techmedia

Assessment and Evaluation		
Suggested Continuous Evaluation Methods:		
Maximum Marks: 50 Marks	Continuous Internal Assessment (CIA): 15 Marks	End Semester Exam (ESE) : 35 Marks
Continuous Internal Assessment (CIA)	Internal Test/Quiz- (2): 10 & 10 Assignment / Seminar: 5 Total Marks: 15	Better marks out of the two Test / Quiz + obtained marks is Assignment shall be considered against **15** Marks
End Semester Exam (ESE)		