	Scheme of Teaching, Learning, Examination and Evaluation (B.Sc. Part-I) (Semester-I) Computer Science/CA(Voc-Non Voc)/IT																
					Teac	hing & I	Learning S	Scheme			Examination & Evaluation Scheme						
Sr No		Subject	Tea		g Per veek	iod Per	Credits			Durati on of							mum sing
Sr. No	Subject	Code	L	Т	Р	Tota l	Theory/ Tutorial		Total	Exams in Hrs	Theory+ MCQ Ext	Skill Enhancement Module (SEM)		tical	Total Marks	Mark s	Grade
												Int.	Internal	External			
	DSC-1: Fundamentals of Computer & C	CS1	6	-	-	6	4.5	-	4.5	3	80	20	-	-	100	40	Р
2	DSC-2: Practical for C programming	CSP1	-	-	6	6	-	2.25	2.25	3	-	-	25	25	50	25	Р

APPENDIX-AI (Three Years Six Semesters De	gree Programme) (Choice Based Credit Syste	tem ) Examinations leading to the Degree of Bachelor of Science

	Scheme of Teach	ing, Learn	ing,	Exa	min	ation ar	nd Evalu	ation (	(B.Sc. Pa	rt-I) (S	emester-I	I) Computer S	Science/C	CA(Voc-N	lon Voc)	/IT	
							Feaching & Scheme	& Learı	ning	Durati on of		Exan	ination &	Evaluatio	on Scheme		
Sr. No	Subject	Subject	Tea		g Per week	iod Per				Exams in Hrs							nimum ssing
Sr. No	Subject	Code	L	Т	Р	Total	Theory/	Pract			Theory + M.C.Q	Skill Enhancement	Prac	etical	Total	Mala	
							Tutorial	Tutorial ical	al Total		Ext.	Module (SEM) Int.	Internal	External	Marks	Marks	Grade
3	DSC-3 Data Structure and CPP	CS2	6	-	-	6	4.5	-	4.5	3	80	20	-	-	100	40	Р
4	DSC-4 Practical On DS And CPP	CSP2	-	-	6	6	-	2.25	2.25	3	-	-	25	25	50	25	Р

	Scheme of Teaching	ng, Learni	ng, l	Exan	nina	tion and	l Evalua	tion (1	B.Sc. Par	t-II) (S	emester-I	II) Computer	Science/	CA(Voc-	Non Voc	)/ <b>IT</b>	
					Teac	ching & I	Learning S	Scheme				Examin	ation & E	valuation S	Scheme		
		Subject	Tea		g Per veek	iod Per	Credits			Durati	Maximum Marks Minimum Passing						
Sr. No	Subject	Code	L	Т	Р	Tota 1	Theory/ Tutorial	Pract ical	Total	on of Exams in Hrs	Theory+ MCQ Ext	Skill Enhancement Module (SEM)	Prac		Total Marks	Mark s	Grade
												Int.	Internal	External			
5	DSC-5 Networking and Web Technologies	CS3	6	-	-	6	4.5	-	4.5	3	80	20	-	-	100	40	Р
6	DSC-6 Practical Web Technologies	CSP3	_	-	6	6	-	2.25	2.25	3	-	-	25	25	50	25	Р

	Scheme of Teaching, Learning, Examination and Evaluation (B.Sc. Part-II) (Semester-IV) Computer Science/CA(Voc-Non Voc)/IT																
					Teac	hing & I	Learning S	Scheme				Examina	ation & E	valuation S	Scheme		
		~ • •	Teaching Period Per week				Credits			Durati	Maximum Marks						mum sing
Sr. No	Subject	Subject Code	L	Т	Р	Tota 1	Theory/ Tutorial		Total	on of Exams in Hrs	Theory+ MCQ Ext	Skill Enhancement Module (SEM)	Prac	tical	Total Marks	Mark s	Grade
									Int.	Internal	External						
7	DSC-7 RDBMS and Core Java	CS4								3							
	DSC-8 Practical on RDBMS and Core Java	CSP4			6	6				3			25	25	50	25	р
9	Open Elective Course (Optional)		GIC/MOOC/Skill course														

	Scheme of Teach	ing, Learr	ning,	Exa	min	ation ar	nd Evalu	ation	(B.Sc. Pa	rt-III)	(Semester	r-V) Compute	r Applic	ation (Vo	c-Non V	oc)	
					Teac	hing & I	Learning S	Scheme			Examination & Evaluation Scheme						
			Teaching Period Per week				Credits			Durati	Maximum Marks					Minimum Passing	
Sr. No	Subject	Subject Code	L	Т	Р	Tota l	Theory/ Tutorial	Pract ical	Total	on of Exams in Hrs	Theory+ MCQ Ext	Skill Enhancement Module (SEM)	Prac		Total Marks	Mark s	Grade
												_ ` ` ´		External			
10	DSC-9 Python Programming	CPAV5	6		-	6		-		3	60+20	20	-	-	100	40	р
	DSC 10 Practical on Python Programming	CPAVP5			6	6		-		3			25	25	50	25	р
X	Open Elective Course (Optional)			GIC/MOOC/Skill course													

	Scheme of Teach	ing, Learn	ing,	Exa	mina	ation an	d Evalu	ation (	(B.Sc. Pa	rt-III)	(Semester	-VI) Compute	er Applic	ation (V	oc-Non V	voc)		
					Teac	hing & I	Learning S	Scheme			Examination & Evaluation Scheme							
	) Subject	Subject Code	Теа		g Peri week	iod Per	Credits			Durati	Maximum Marks						mum sing	
Sr. No			L	Т	Р	Tota l	Theory/ Tutorial	Pract ical	Total	on of Exams in Hrs	Theory+ MCQ Ext	Skill Enhancement Module (SEM)	Prac	tical	Total Marks	Mark s	Grade	
												Int.	Internal	External				
13	DSE-I (1) .Net Technologies with C#	CPAVE1	6		-	б	4.5	-	4.5	3	60+20	20	-	-	100	40	р	
4	DSE-I (2) Android Programming	CPAVE2	6		-	б	4.5	-	4.5	3	60+20	20	-	-	100	40	р	
15	DSE-II (1) Practical on .Net Technologies with C#	CPAVEP1			6	6		2.25	2.25	3			25	25	50	25	р	
16	DSE-II (2) Practical on Android Programming	CPAVEP2			6	6		2.25	2.25	3			25	25	50	25	р	
17	Project / dissertation if applicable				2	2		1	1		-	-					Р	
18	(AEC) on DSC if applicable			1		1	1		1	1			25	-	25	10	Р	
19	Open Elective Course (Optional)									GIC	/MOOC/Sk	ill course						

Note: Studentss shall opt one of the DSE-I (1) and DSE-I (2) papers and its related practical (either DSE-II (1) and DSE-II (2))

## Sant Gadge Baba Amravati University, Amravati

#### **Faculty of Science and Technology**

## Part B

## Syllabus Prescribed for the Year 2024-25

## UG Programme: B.Sc. Part III (Computer Application [Voc / Non-Voc])

Semester V

Code of the Course/Subject	Title of the Course/Subject	(Total Number of Periods)
CPAV5	Python Programming	72

#### Cos: On completion of course, the students will be able to

1. Describe the core syntax and semantics of Python programming language.

2. Discover the need for working with the strings and functions.

3. Illustrate the process of structuring the data using lists, dictionaries, tuples and sets.

4. Indicate the use of regular expressions and built-in functions to navigate the file system.

5. Infer the Object-oriented Programming concepts in Python.

Unit	Content
Unit-I	<b>Introduction:</b> History of Python Programming Language, Thrust area of Python, Installing Anaconda Python Distribution, Installing PyCharm IDE to setup a Python Development Environment, Creating and running your first Python Project
	Parts of Python Programming Language: Identifiers, Keywords, Statements and Expressions, Variables, Operators, Precedence and Associativity, Data Types, Indentation, Comments, Reading Input, Printing Output, Type Conversions, The type() Function and Is Operator, Dynamic and Strongly Typed Language (12 Periods)
Unit-II	<b>Control Flow Statements:</b> The if, if-else, if-elif-else Decision Control Statement, Nested if Statement, The while Loop, The for Loop, The continue and break Statements, Catching Exceptions Using try and except Statement
	<b>Functions:</b> Built-In Functions, Commonly Used Modules, Function Definition and Calling the Function, The return Statement and void Function, Scope and Lifetime of Variables, Default Parameters, Keyword Arguments, *args and **kwargs, Command Line Arguments (12 Periods)
Unit-III	<b>Strings:</b> Creating and Storing Strings, Basic String Operations, Accessing Characters in String by Index Number, String Slicing and Joining,
	<b>String Methods:</b> Formatting Strings, Lists, Creating Lists, Basic List Operations, Indexing and Slicing in Lists, Built-In Functions Used on Lists, List Methods, The del Statement ( <b>11 Periods</b> )
Unit-IV	<b>Dictionaries:</b> Creating Dictionary, Accessing and Modifying key:value Pairs in Dictionaries, Built-In Functions Used on Dictionaries, Dictionary Methods, The del Statement
	<b>Tuples and Sets:</b> Creating Tuples, Basic Tuple Operations, Indexing and Slicing in Tuples, Built-In Functions Used on Tuples, Relation between Tuples and Lists, Relation between Tuples and Dictionaries, Tuple Methods, Using zip() Function, Sets, Set Methods, Traversing of Sets, Frozenset.Frozenset.(11 Periods)
Unit-V	<b>Files:</b> Types of Files, Creating and Reading Text Data, File Methods to Read and Write Data, Reading and Writing Binary Files, The Pickle Module, Reading and Writing CSV Files, Python os and os.path Modules,
	<b>Regular Expression Operations:</b> Using Special Characters, Regular Expression Methods, Named Groups in Python Regular Expressions, Regular Expression with glob Module.
	(11Periods)

Unit-VI	<b>Object-Oriented Programming:</b> Classes and Objects, Creating Classes in Python, Creating Objects in Python,
	The Constructor Method, Classes with Multiple Objects, Class Attributes versus Data Attributes, Encapsulation, Inheritance, The Polymorphism. (11 Periods)
	signment, Class test, Seminar, Study tour, Industrial visit, Field work, Group discussion or any ovative practice/activity
**Activit	<ul> <li>ies</li> <li>1. Download and install python.</li> <li>2. Write and execute python program which prints "Welcome to Python" (4 Periods)</li> </ul>

## **Course Material/Learning Resources**

#### Text books:

1. "Introduction to Python Programming", 1st Edition, by Gowrishankar S, Veena A

### **Reference Books:**

- 1. "Python Data Science Handbook: Essential Tools for Working with Data", by Jake VanderPlas,
- 2. "Hands-On Machine Learning with Scikit-Learn and TensorFlow: Concepts, Tools, and Techniques to Build Intelligent Systems", by Aurelien Geron
- 3. "Core Python Applications Programming", 3rd Edition, by Wesley J Chun
- 4. "Flask Web Development: Developing Web Applications with Python", 2nd Edition, by Miguel Grinberg,

### Weblink to Equivalent MOOC on SWAYAM if relevant:

- 1. https://onlinecourses.swayam2.ac.in/aic20 sp33/preview
- 2. <u>https://onlinecourses.nptel.ac.in/noc19\_cs40/preview</u>
- 3. https://www.classcentral.com/course/swayam-python-for-data-science-14266

## Weblink to Equivalent Virtual Lab if relevant:

- 1. https://python-iitk.vlabs.ac.in/
- 2. http://vlabs.iitb.ac.in/vlabs-dev/labs/python-basics/index.html
- 3. https://www.vlab.co.in/broad-area-computer-science-and-engineering

## Any pertinent media (recorded lectures, YouTube, etc.) if relevant:

- 1. https://www.youtube.com/watch?v=daefaLgNkw0
- 2. <u>https://www.youtube.com/watch?v=W8KRzmHUcc</u>
- 3. https://www.youtube.com/watch?v=gfDE2a7MKjA

## Sant Gadge Baba Amravati University, Amravati Faculty of Science and Technology

## Part B

#### Syllabus Prescribed for the Year 2024-25

## UG Programme: B.Sc. Part III (Computer Application [Voc / Non-Voc])

## Semester V

Code of the Course/Subject	Title of the Course/Subject	(Total Number of Periods)
CSP6	Practical on Python Programming	(06 periods per Batch per Week)

# COs

1. To implement Python programs with conditionals and loops.

2. Use functions for structuring Python programs.

3. Represent compound data using Python lists, tuples, and dictionaries.

4. Read and write data from/to files in Python.

## \* List of Practical/Laboratory Experiments/Activities etc.

Sr. No.	Name of Experiment/Practical
1	Write a program to perform different arithmetic operations on numbers in Python.
2	Write a Program for checking whether the given number is an even number or not Using a for loop.
3	Write a program using a while loop that asks the user for a number, and prints a Countdown from that number to zero.
4	Write a program to create, concatenate and print a string and accessing substring from a given string.
5	Write a Python script to print the current date in following format "Sun June 26 02:26:23 IST 2022"
6	Write a Python program to create, append and remove lists.
7	Python program to check if a substring is present in a given string.
8	Write a program to demonstrate working with tuples in Python.
9	Write a program to demonstrate working with dictionaries in Python.
10	Write a Python program to find largest of three numbers.
11	Write a Python program to construct the following pattern using nested for loop.
	*
	* *
	* * *
	* * * *
12	Write a Python program to print prim numbers less than 20.
13	Write a Python program to find factorial of a number using recursion.
14	Write a Python program to map two lists into a dictionary.
15	Write a Python program to count the frequency of words appearing in a string using a dictionary.
16	Write a Python program to create a dictionary with key as first character and value as words starting with that character.
17	Write a Python program to read the contents of a file in reverse order.
18	Write a Python program to map two lists into a dictionary.
19	Write a Python Program to demonstrate the class and object.
20	Write a Python Program to demonstrate constructor method.

## Weblink to Equivalent Virtual Lab if relevant:

- 1. https://python-iitk.vlabs.ac.in/
- 2. http://vlabs.iitb.ac.in/vlabs-dev/labs/python-basics/index.html
- 3. https://www.vlab.co.in/broad-area-computer-science-and-engineering

## **Distribution of Marks for Practical Examination**

Time: 4 hours (One Day Examination) Marks: 50

Exercise-I:	15
Exercise-II;	15
Viva-Voce:	10
Record:	10
Total:	50

## Sant Gadge Baba Amravati University, Amravati

### Faculty of Science and Technology

## Part B

## Syllabus Prescribed for the Year 2024-25

## UG Programme: B.Sc. Part III (Computer Application [Voc / Non-Voc])

# Semester VI

Code of the Course/Subject	Title of the Course/Subject	(Total Number of Hours)
CPAVE1	.Net Technologies with C#	72 periods

## **Course Objectives (Cos):**

## On completion of course, the students will be able to

1. To understand .Net Technologies

1. To learn basic programming in C# and the object-oriented programming concepts.

2. Write various applications using C# Language in the .NET Framework.

3. Develop deep understanding of C# language features.

4. Build strong concepts of OOP's and implement the same inC#.

5. Create and manage strings, arrays, collections and enumerators using .NET framework library.

Unit	Content		
Unit I	.Net Architecture: History, Origins of .Net technology, .Net framework, Benefits of .Ne	t, The Common	
Unit I	Language Runtime, Framework Base Classes		
	User and Program interfaces, Visual Studio.net, .Net languages, The C# environment, c# and .net		
		(12 periods)	
Unit II	Overview of C#: Namespaces, Comments, Aliases for Namespaces, Command-line argu	ments, Program	
onn	structure; Literals, Variables and Data types		
	Operators, Expressions, Decision making and Branching, Looping	(12 periods)	
Unit III	Methods in c#: Array handling, String manipulation, Structures and Enumerations		
onn m	Classes and Objects: Principle of OOP, Access modifiers, constructors, destructors, Nesti	ng of classes;	
	Console I/O operations: console class, console input output, formatted output	(11 periods)	
Unit IV	Operator overloading: Unary and Binary operator overloading, Comparison, Delegates		
enit i v	Errors and Exceptions: Types of Errors, Exceptions, Exception Handling Codes,		
	statements, Exception hierarchy, Catch handler, finally statement, Nested try blocks.	(11 periods)	
Unit V	Inheritance and Polymorphism: Multilevel inheritance, Hierarchical inheritance, Over	erriding, Hiding	
enit v	methods, Abstract methods and Classes, Sealed classes and methods		
	Interfaces: Defining, Extending and Implementing interfaces, Interfaces and Inher	-	
	interface implementation, Abstract class and Interfaces	(11 Periods)	
Unit VI	Multithreading in c#: Introduction, System. Threading namespace, Scheduling, Synchr	onizing threads,	
	Thread pooling.		
	File Manipulation: Managing File System, Moving, Copying, Deleting files, Reading and Writing to		
	files, Reading Drive information, File Security	(11 periods)	
*SEM A	ssignment, Class test, Attendance, Seminar, Study tour, Industrial visit, Field work, Group	discussion or	
	innovative practice/activity		
Course O			
1. 1	Fo learn basic programming in C# and the object-oriented programming concepts.		
	Write various applications using C# Language in the .NET Framework.		
**Acti	1. Understanding the concepts of c # and dot net.		
vities	2. Programming concepts in .Net Framework.		
	3. Implementation of classes, object, inheritance and polymorphism.		
	4. Implementation of operator overloading.	(4 periods)	

## **Course Material/Learning Resources**

### Text books:

1) 1. Programming in C# -E. Balagurusamy, Tata McGraw-Hill Publications

2. Professional C# 2005 with .NET 3.0 - Christian Nagel, Bill Evjen, Jay Glynn, Morgan Skinner and Karli Watson Wrox Press

### **Reference Books:**

1. Programming C# - J. Liberty, O'Reilly Publications

2. The Complete Reference: C# - Herbert Schildt, Tata McGraw-Hill Publications

3. C# and the .NET Platform -Andrew Troelsen, A! Press

### Weblink to Equivalent MOOC on SWAYAM if relevant:

https://www.mooc-list.com/course/c-class-development-coursera-0

## https://www.my-mooc.com/en/mooc/programming-c-microsoft-dev204x-2/

## Weblink to Equivalent Virtual Lab if relevant:

https://www.studocu.com/in/document/gujarat-technological-university/dotnet-technology/dot-net-technology-2160711-lab-manua-l/18844468

## Any pertinent media (recorded lectures, YouTube, etc.) if relevant:

https://www.youtube.com/watch?v=fmvcAzHpsk8 https://www.youtube.com/watch?v=gfkTfcpWqAY

https://www.youtube.com/watch?v=SXmVym6L8dw

#### Sant Gadge Baba Amravati University, Amravati

## Faculty of Science and Technology

#### Part B

#### Syllabus Prescribed for the Year 2024-25

### UG Programme Programme: B.Sc. Part III (Computer Application [Voc / Non-Voc])

#### Semester VI

Code of the Course/Subject	Title of the Course/Subject	(Total Number of Periods)
CPAVE2	Android Programming	72

Cos:

- 1. Understanding of an open source and Linux-based Operating System for mobile devices such as smart phones and tablet computers
- 2. Knowledge and ability to implement application development for mobile devices
- 3. Getting programming experience of Android application development
- 4. Acquire the Knowledge of Application Components (the essential building blocks of an Android application) for rapid application development
- 5. Getting the experience of Sqlite Database in Application development.

Unit	Content	
Unit I	Introduction: What is Android? Features of Android, Android Applications, Andr	oid
Ontri	environment setup, Architecture, Applications Component,	
	Hello World Example, Organizing & accessing the resources, Activities, Services,	Broadcast
	Receivers, Content Providers, Fragments, Intents & Filters	(12 Periods)
Unit II	Android User Interface: Android UI Layouts, UI Controls, Event Handling, Styl	es & Themes,
omn	Custom Components, Drag & Drop	
	Notifications, Location-Based Services, Sending Email, Sending SMS, Phone Calls	s, Publishing
	Android Application, Alert Dialog	(12 Periods)
Unit III	Android Animations, Audio Capture, Audio Manager, Autocomplete, Bluetooth, Camera, Clipboard, Custom Fonts, Data Backup	
	Developer Tools, Emulator, Facebook Integration, Gestures, Google Maps, Image	Effects. Image
	Switcher, Internal Storage, Jet player	(11 Periods)
Unit IV Loading Android Spinner, Localization, Login Screen, Media Player, Multitouch, Na Network Connection		
	PHP / MySql, Progress Circle, Progress Bar Using Progress Dialog, Push Notificat	ion
	1111 / Wysqi, 110gress Chere, 110gress Dar Osnig 110gress Dialog, 1 ush Notricat	(11 Periods)
	Android SDK Manager, Sensors, Session Management, Sqlite Database, Support L	· /
Unit V	Testing	lorary,
	UI Design, UI Patterns, UI Testing, Android – Webview	(11 Periods)
TT X7T	Android WI-FI, Android: Widgets, File, Layout file, Java file, Manifest file	( )
Unit VI	Android –XML Parser, XML Element, XML Parsing	(11 Periods)
*SFM· As	signment, Class test, Seminar, Study tour, Industrial visit, Field work, Group disc	cussion or any
	ative practice /activity	cussion of any
Activities	1. Android: Environment Setup	
retivities	2. Implementation of Android feature in real time application	
	3. Demonstration of Android – UI Layouts, UI Controls & Event Handling	
	4. Execution of Android – Animations, Audio Capture, Audio Manager, Camera	
	5. Implantation of Sqlite Database	(4 Periods)
	5. Implantation of Squite Database	(+1 (11005)

### Text books:

1. Android Programming for Beginners - Second Edition: Build in-depth, full-featured Android 9 Pie apps starting from zero programming experience, 2nd Edition by John Horton

### **Reference Books:**

- 1. Android Application Development, Black Book, Dreamtech Press
- 2. Android Programming: The Big Nerd Ranch Guide, 4th Edition by Bill Phillips, Chris Stewart, Kristin Marsicano, Brian Gardner(O'REILLY)

#### Weblink to Equivalent MOOC on SWAYAM if relevant:

- 1. https://onlinecourses.swayam2.ac.in/nou21\_ge41/preview
- 2. https://onlinecourses.swayam2.ac.in/aic20\_sp02/preview

## Weblink to Equivalent Virtual Lab if relevant:

1. <u>https://www.youtube.com/watch?v=Xvdn8c7qv0o</u>

## Any pertinent media (recorded lectures, YouTube, etc.) if relevant:

- 1. <u>https://www.youtube.com/watch?v=fis26HvvDII</u>
- 2. <u>https://www.youtube.com/watch?v=p0ItPcqqXog</u>
- 3. https://www.youtube.com/watch?v=kMI2jy-WIGM

### Sant Gadge Baba Amravati University, Amravati Faculty of Science and Technology Part B Syllabus Prescribed for the Year 2024-25 UG Programme: B.Sc. Part III (Computer Application [Voc / Non-Voc])

#### Semester VI

Code of the Course/Subject	Title of the Course/Subject	(No. of Periods/Week)
CPAVEP1	Practical on Dot Net Technologies	(06 periods per Batch per
	with C#	Week)

## Cos

## On completion of course, the students will be able to

- 1. Display proficiency in C# by building stand-alone applications in the .NET framework using C#
- 2. Create distributed data-driven applications using the .NET Framework
- 3. To implement different types of inheritances and operator overloading concepts using C#
- 4. To implement exception handling with c#

#### \* List of Practical/Laboratory Experiments/Activities

Sr. No.	Name of Practical / Experiment
1	Write a c# program to Calculate Hypotenuse of triangle using dynamic initialization of variables
2	Write a c# program to get input from the user and perform calculations
3	Write a c# program to Calculate the quadrant for the coordinates using ifelseladder
4	Write a c# program to Check whether the alphabet is a vowel or not using switchcase
5	Write a c# program to understand about foreach loop and strings
6	Write a c# program to print the students list using classes and objects
7	Write a c# program to implement Single Inheritance concepts
8	Write a c# program to implement Multilevel Inheritance concepts
9	Write a c# program to implement Multiple Inheritance concepts
10	Write a c# program to implement Unary operator overloading concept in C#
11	Write a c# program to implement Binary operator overloading concept in C#
12	Write a console application that obtains four int values from the user and displays the product
13	Write a console application that accepts two integers and finds greater integer
14	Write a console application that places double quotation marks around each word in a string
15	Write an application that uses two command-line arguments to place values into a string and an
	integer variable, respectively. Then display these values.
16	Write an application that receives the following information from a set of students:
	Student Id:
	Student Name:
	Course Name:
	Date of Birth:
	The application should also display the information of all the students once the data is Entered.
	Implement this using an Array of Structures.
17	Write c# program using conditional statements and loops: Generate Fibonacci series.
18	Write c# program using conditional statements and loops: Generate various patterns (triangles,
4.0	diamond and other patterns) of numbers
19	Write c# program using conditional statements and loops: Test for prime numbers
20	Write c# program using conditional statements and loops: Reverse a number and find sum of digits of
	a number.
21	Write a c# program to declare a class named "staff" having data members as name and post. Accept
	this data for 5 staff members and display names of staff who are HoD
22	Write a c# program to declare class named "Distance" having data members dist1, dist2, dist3.
	Initialize the two data members using constructor and store their sum in third data member using
22	function and display sum
23	Write a c# program to accept a number from the user and throw an exception if the number is not an
	even number

## Sant Gadge Baba Amravati University, Amravati Faculty of Science and Technology Part B Syllabus Prescribed for the Year 2024-25 UG Programme: B.Sc. Part III (Computer Application [Voc / Non-Voc]) Semester VI

Code of the Course/Subject	Title of the Course/Subject	(No. of Periods/Week)
CPAVEP2	Practical on Android Programming	(06 periods per Batch per Week)

COs

1. Rapid Android Application Development

- 2. Development of Application as per user's need by providing internet tools.
- 3. Development of Android Database Application.
- 4. Hands on Animation

## \* List of Practical/Laboratory Experiments/Activities etc.

Sr.No.	Name of Program/ Experiment
1	Program to display "Hello World".
2	Program to create simple calculator.
3	Program to create an activity using fragment in Android
4	Program to create multiple activities within an application.
5	Program to illustrate content provider .
6	Program to demonstrate the Menu Application
7	Program to demonstrate Intent Filter
8	Program to demonstrate Broadcast Receiver.
9	Program to create an Alert Dialog Box
10	Program to show SMS in your phone
11	Program to create and use a Compound Control
12	Program to get Geo Location of a place
13	Program to animate a bitmap
14	Program for Simple Animation activity in Android
15	Program to demonstrate a Video View
16	Program for Advanced Animation Activity
17	Program to create a New Thread for Service Tasks
18	Program to crate Progress Bar using Progress Dialog
19	Program to demonstrate a Video View
20	Program to send and receive Data from Server