

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
TYBBA(CA) Semester V (CBCS) Pattern 2019
Cyber Security
Course code 501

Teacher Name: Ashwini Mungle

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 501)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO501.1 Have a good understanding of Cyber Security and the Tools.	Lecture method, Use of ICT.	Assignment Test PPT
CO501.2 To acquire basic information on Cyber Security and Cybercrime.	Lecture method, Use of ICT.	Assignment Test PPT
CO501.3 Have a good understanding of Cyber laws.	Lecture method, Use of ICT.	Assignment Test PPT
CO501.4 To develop Cyber forensics awareness.	Lecture method, Use of ICT.	Assignment Test PPT
CO501.5:Identify attacks, security policies and credit card frauds in the mobile and Wireless Computing Era	Lecture method Use of ICT.	Assignment Test PPT
CO501.6 Understand Required security constraint	Lecture method Use of ICT.	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-501 SY.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to Cyber Crime and Cyber Security 1.1 Introduction 1.2 Cybercrime: Definition and Origin of the Word 1.3 Cybercrime and Information Security 1.4 Who are Cybercriminals? 1.5 Classifications of Cybercrimes: E-Mail Spoofing, Spamming, Cyber defamation, Internet Time Theft, Salami Attack/Salami Technique, Data Diddling, Forgery, Web Jacking, Newsgroup, Spam/Crimes Emanating from Usenet Newsgroup, Industrial Spying/Industrial Espionage, Hacking, OnlineFrauds, Computer Sabotage, Email Bombing/Mail Bombs, Computer Network Intrusions, Password Sniffing, Credit Card Frauds, Identity Theft 1.6 Definition of Cyber Security 1.7 Vulnerability, Threats and Harmful acts 1.8 CIA Triad 1.9 Cyber Security Policy and Domains of Cyber	Get the knowledge of the basic concept of Cyber Security. Understand the concept of Cybercriminals, Cyber Security policy and Domains of cyber security policy.

	Security Policy	
2	<p>Cyber offenses and Cyberstalking</p> <p>2.1 Criminals Plan: Categories of Cybercrime Cyber Attacks: Reconnaissance, Passive Attack, Active Attacks, Scanning/Scrutinizing gathered Information, Attack (Gaining and Maintaining the System Access), Social Engineering, and Classification of Social Engineering.</p> <p>2.2 Cyberstalking: Types of Stalkers, Cases Reported on Cyberstalking, Working of Stalking</p> <p>2.3 Real-Life Incident of Cyber stalking</p> <p>2.4 Cybercafe and Cybercrimes</p> <p>2.5 Botnets: The Fuel for Cybercrime, Botnet, Attack Vector</p> <p>2.6 Cybercrime: Mobile and Wireless Devices – Proliferation - Trends in Mobility</p> <p>2.7 Credit Card Frauds in Mobile and Wireless Computing Era</p> <p>2.8 Security Challenges Posed by Mobile Devices</p> <p>2.9 Authentication Service Security</p> <p>2.10 Attacks on Mobile/Cell Phones</p>	
3	<p>Tools and Methods Used in Cybercrime</p> <p>3.1 Introduction</p> <p>3.2 Proxy Servers and Anonymizers</p> <p>3.3 Phishing</p> <p>3.4 Password Cracking</p> <p>3.5 Keyloggers and Spywares</p> <p>3.6 Virus and Worms</p> <p>3.7 Trojan Horses and Backdoors</p> <p>3.8 Steganography</p> <p>3.9 DoS and DDoS Attacks</p> <p>3.10 SQL Injection</p>	Students understand tools used in Cybercrime
4	<p>Cybercrimes and Cyber security: The Legal Perspectives</p> <p>4.1 Introduction</p> <p>4.2 Cybercrime and the Legal Landscape around the World</p> <p>4.3 Why Do We Need Cyberlaws: The Indian Context</p> <p>4.4 The Indian IT Act</p> <p>4.5 Challenges to Indian Law and Cybercrime Scenario in India</p> <p>4.6 Consequences of not Addressing the Weakness in Information Technology Act</p> <p>4.7 Digital Signatures and the Indian IT Act</p> <p>4.8 Amendments to the Indian IT Act</p> <p>4.9 Cybercrime and Punishment</p>	Get the knowledge of Cybercrimes and Cyber security and there Legal Prespective.

	4.10 Cyberlaw, Technology and Students: Indian Scenario	
5	Cyber Forensics 5.1 Introduction 5.2 Historical background of Cyber forensics 5.3 Digital Forensics Science 5.4 The Need for Computer Forensics 5.5 Cyber Forensics and Digital evidence 5.6 Forensics Analysis of Email 5.7 Digital Forensics Lifecycle 5.8 Challenges in Computer Forensics	Students understand the concept of Cyber Forensics
6	Cybersecurity: Organizational Implications 6.1 Organizational Implications: Cost of cybercrimes and IPR issues 6.2 Web threats for organizations 6.3 Security and Privacy Implications from Cloud Computing 6.4 Social media marketing 6.5 Social computing and the associated challenges for organizations, Protecting people's privacy in the organization 6.6 Organizational guidelines for Internet usage and safe computing guidelines and computer usage policy 6.7 Incident handling	Students understand the Organizational Implications of Cyber Security

Table1

Course Outcome	Course Outcome
CO 501.1	Have a good understanding of Cyber Security and the Tools.
CO 501.2	To acquire basic information on Cyber Security and Cybercrime.
CO 501.3	Have a good understanding of Cyber laws.
CO 501.4	To develop Cyber forensics awareness.
CO 501.5	Identify attacks, security policies and credit card frauds in the mobile and Wireless Computing Era
CO 501.6	Understand Required security constraint

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 501.1	3	-	3	2	3

CO 501.2	3	-	3	2	3
CO 501.3	3	-	3	2	3
CO 501.4	3	-	3	2	3
CO 501.5	3	-	3	2	3
CO 501.6	3	-	3	2	3
CO 501	3	-	3	2	3

Table 3

CO	PSO1	PSO2	PSO3
CO 501.1	3	1	3
CO 501.2	3	1	3
CO 501.3	3	1	3
CO 501.4	3	1	3
CO 501.5	3	1	3
CO 501.6	3	1	3
CO 501	3	1	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	JAMKHEDKAR ARPITA MADHUKAR	2	Yes	6	Yes	8	Yes	7	Yes	63	Yes
2	MHASKE SANDHYA DILIP	3	Yes	6	Yes	10	Yes	7	Yes	56	Yes
3	KUMBHAR SAKSHI GANESH	2	Yes	6	Yes	10	Yes	8	Yes	66	Yes
4	VAWAL VAISHNAVI SANTOSH	2	Yes	6	Yes	9	Yes	8	Yes	63	Yes
5	TODKAR VAISHNAVI VAIJANATH	3	Yes	5	Yes	7	Yes	AB	NA	50	Yes
6	PHADTARE JANHAVI AMIT	AB	NA	AB	NA	9	Yes	9	Yes	70	Yes
7	LAYGUDE AMRUTA SANJAY	3	Yes	6	Yes	10	Yes	8	Yes	55	Yes
8	JADHAV SHREYA C	2	Yes	6	Yes	9	Yes	8	Yes	67	Yes
9	JOSHI LABHANSHI SUNDARSHAN	2	Yes	6	Yes	9	Yes	9	Yes	53	Yes
10	NEHERE NIDHI CHANDRASHEKHAR	3	Yes	6	Yes	10	Yes	9	Yes	66	Yes
11	UMBARJE MEERA DEVIDAS	3	Yes	6	Yes	9	Yes	8	Yes	55	Yes

12	RODE POOJA RAMDAS	AB	NA	6	Yes	9	Yes	6	Yes	67	Yes
13	PARMAR PRITI UTTAM	2	Yes	6	Yes	9	Yes	9	Yes	70	Yes
14	TAPKIR TANVI MOHAN	AB	NA	AB	NA	10	Yes	8	Yes	38	Yes
15	MORE DHANASHREE GANESH	3	Yes	6	Yes	9	Yes	9	Yes	49	Yes
16	MAHANAVAR KALYANI GORAKH	3	Yes	6	Yes	10	Yes	9	Yes	56	Yes
17	FALKE VAISHNAVI SANTOSH	AB	NA	6	Yes	8	Yes	6	Yes	59	Yes
18	DESHMANE PRANALI SANTOSH	3	Yes	6	Yes	8	Yes	9	Yes	48	Yes
19	JADHAV NIKITA ANKUSH	2	Yes	6	Yes	10	Yes	8	Yes	63	Yes
20	PANCHGALLE SHARDHA VIRBHADRA	2	Yes	6	Yes	8	Yes	7	Yes	56	Yes
21	KONGLE VAISHNAVI VIVEKANAND	3	Yes	6	Yes	8	Yes	7	Yes	60	Yes
22	GAIKWAD VAISHNAVI VIJAY	2	Yes	AB	NA	9	Yes	8	Yes	63	Yes
23	DONGRE SAKSHI SANDIP	2	Yes	6	Yes	7	Yes	7	Yes	64	Yes
24	DEDGE APURVA ANIL	3	Yes	6	Yes	7	Yes	9	Yes	70	Yes
25	KAMTHE AISHWARYA PURUSHOTTAM	2	Yes	AB	NA	5	Yes	8	Yes	62	Yes
26	NALGIRE SHWETA ANIL	3	Yes	6	Yes	9	Yes	9	Yes	48	Yes
27	NAGPURE SHWETA VINOD	3	Yes	6	Yes	9	Yes	7	Yes	45	Yes
28	KHANDELWAL PALAK MURLIDHAR	AB	NA	5	Yes	9	Yes	9	Yes	63	Yes
29	DHAPODKAR SIDDHI SURYAKANT	4	Yes	AB	NA	9	Yes	AB	NA	60	Yes
30	KANDE SAKSHI RAJENDRA	3	Yes	AB	NA	7	Yes	7	Yes	56	Yes
31	KAMBLE RAJNANDINI SHIVAJI	2	Yes	6	Yes	9	Yes	6	Yes	63	Yes
32	KAMBLE SAKSHI MUKUNDRAJ	3	Yes	AB	NA	9	Yes	8	Yes	64	Yes

1 Tool No 1 Presentation

Yes= 27 No=00 NA=05

Total No. of Yes/Total No. of Students

29/32

0.84

2 Tool No 2 Assignments

Yes= 25 No=00 NA=07

Total No. of Yes/Total No. of Students

25/32

0.78

3 Tool No 3 Test1

Yes=32 No=00 NA=00

Total No. of Yes/Total No. of Students

32/32

1

4 Tool No 4 Test2

Yes= 30 No=4 NA=02

Total No. of Yes/Total No. of Students

30/32

0.93

5 Tool No 5 Final Exam

Yes= 32 No=00 NA=00

Total No. of Yes/Total No. of Students

32/32

1

Internal Average Assessment=Presentation+Assignment+Test1+Test2

$(0.84+0.78+1+0.93)/4=3.55/4=0.88$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.91 =

ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT

AVERAGE ATTAINMENT VALUE IS 1 =

ATTAINMENT LEVEL= 3

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 $(3 \times 3)/3=3$

PO2 $(0 \times 3)/3 =0$

PO3 $(3 \times 3)/3= 3$

PO4 $(2 \times 3)/3=2$

$$PO5 (3 \times 3) / 3 = 3$$

$$\text{Average PO attainment} = 2.2$$

PSO Attainment

$$PSO1 = (\text{corresponding cell value in table 3} \times \text{Overall CO attainment value}) / 3$$

$$PSO1 (3 \times 3) / 3 = 3$$

$$PSO2 (1 \times 3) / 3 = 0.33$$

$$PSO3 (3 \times 3) / 3 = 3$$

$$\text{Average PSO attainment} = 2.11$$

Huzurpaga Mahila Vanijya Mahavidyalaya
2021-22
TY BBA(CA) Semester V
Object Oriented Software Engineering
Course code 502

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
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Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 502)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able CO502.1 Students will be able to give Design Specifications for Project	Lecture method, , Use of ICT	Assignment Test PPT
CO502.2 Students will acquire Knowledge in Basic Modeling.	Lecture method, Use of ICT	Assignment Test PPT
CO502. 3 Students will acquire Project Management Skills.	Lecture method, Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-502 T.Y.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction and basics of Software Modelling 1.1 Software Life Cycle Models (Revision of SE) 1.2 System Concepts 1.3 Project Organization 1.4 Communication in Project Management 1.5 Risk management in Project Management	To know the concept of Software Modelling
2	SRS Documentation 2.1 SRS Specification 2.2 Requirement Elicitation 2.3 Business Engineering	To understand SRS
3	Introduction to UML 3.1 Concept of UML 3.2 Advantages of UML	To understand UML
4	Object Oriented Concepts and Principles 4.1 What is Object Orientation? - Introduction , Object , Classes and Instance , Polymorphism, Inheritance 4.2 Object Oriented System Development- Introduction, Function/Data Methods (With Visibility), Object Oriented Analysis, Object Oriented Construction 4.3 Identifying the Elements of an Object Model 4.4 Identifying Classes and Objects 4.5 Specifying the Attributes (With Visibility) 4.6 Defining Operations 4.7 Finalizing the Object Definition	Students should be able to know Iterative type of SDLC
5	Structural Modeling 5.1 Classes	Students should be aware about the Structural diagrams of UML.

	<p>5.2 Relationship</p> <p>5.3 Common Mechanism</p> <p>5.4 Class Diagram (Minimum three examples should be covered)</p> <p>5.5 Advanced Classes</p> <p>5.6 Advanced Relationship</p> <p>5.7 Interface</p> <p>5.8 Types and Roles</p> <p>5.9 Packages</p> <p>5.10 Object Diagram (Minimum three examples should be covered)</p>	
6	<p>Basic Behavioural Modeling</p> <p>6.1 Interactions</p> <p>6.2 Use Cases and Use Case Diagram with stereo types (Minimum three examples should be covered)</p> <p>6.3 Interaction Diagram (Minimum two examples should be covered)</p> <p>6.4 Sequence Diagram (Minimum two examples should be covered)</p> <p>6.5 Activity Diagram (Minimum two examples should be covered)</p> <p>6.6 State Chart Diagram (Minimum two examples should be covered)</p>	Students Should be able to Know Behavioural diagram of UML.

7	<p>Architectural Modelling</p> <p>7.1 Component</p> <p>7.2 Components Diagram (Minimum two examples should be covered)</p> <p>7.3 Deployment Diagram (Minimum two examples should be covered)</p> <p>7.4 Collaboration Diagram (Minimum two examples should be covered)</p>	Students Should be able to Know Architectural diagram of UML.
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Table1

Course Outcome	Course Outcome
CO 502.1	Students will be able to give Design Specifications for Project
CO 502.2	Students will acquire Knowledge in Basic Modelling.
CO 502.3	Students will acquire Project Management Skills.

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 502.1	3	3	2	1	2
CO 502.2	3	3	2	1	2
CO 502.3	3	3	2	1	2
CO 502	3	3	2	1	2

Table 3

CO	PSO1	PSO2	PSO3
CO 502.1	3	2	2
CO 502.2	3	2	2
CO 502.3	3	2	2
CO 502	3	2	2

Roll no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
		4		6		10		10		70	
1	JAMKHEDKAR ARPITA MADHUKAR	3	Yes	6	Yes	10	Yes	6	Yes	57	Yes
2	MHASKE SANDHYA DILIP	2	Yes	6	Yes	10	Yes	10	Yes	62	Yes
3	KUMBHAR SAKSHI GANESH	4	Yes	6	Yes	10	Yes	10	Yes	70	Yes
4	VAWAL VAISHNAVI SANTOSH	3	Yes	6	Yes	10	Yes	10	Yes	70	Yes
5	TODKAR VAISHNAVI VAIJANATH	Ab	NA	5	Yes	10	Yes	Ab	NA	55	Yes
6	PHADTARE JANHAVI AMIT	3	Yes	AB	NA	10	Yes	10	Yes	70	Yes
7	LAYGUDE AMRUTA SANJAY	4	Yes	6	Yes	10	Yes	10	Yes	67	Yes
8	JADHAV SHREYA C	3	Yes	6	Yes	10	Yes	6	Yes	67	Yes
9	JOSHI LABHANSHI SUNDARSHAN	3	Yes	6	Yes	10	Yes	10	Yes	59	Yes
10	NEHERE NIDHI CHANDRASHEKHAR	4	Yes	6	Yes	10	Yes	10	Yes	69	Yes
11	UMBARJE MEERA DEVIDAS	2	Yes	5	Yes	10	Yes	10	Yes	62	Yes
12	RODE POOJA RAMDAS	3	Yes	6	Yes	10	Yes	10	Yes	56	Yes
13	PARMAR PRITI UTTAM	3	Yes	6	Yes	10	Yes	10	Yes	59	Yes
14	TAPKIR TANVI MOHAN	1	Yes	AB	NA	10	Yes	9	Yes	45	Yes

15	MORE DHANASHREE GANESH	3	Yes	5	Yes	9	Yes	8	Yes	70	Yes
16	MAHANAVAR KALYANI GORAKH	2	Yes	6	Yes	10	Yes	9	Yes	55	Yes
17	FALKE VAISHNAVI SANTOSH	Ab	NA	6	Yes	10	Yes	10	Yes	56	Yes
18	DESHMANE PRANALI SANTOSH	3	Yes	6	Yes	10	Yes	9	Yes	59	Yes
19	JADHAV NIKITA ANKUSH	2	Yes	6	Yes	10	Yes	9	Yes	60	Yes
20	PANCHGALLE SHARDHA VIRBHADRA	3	Yes	6	Yes	10	Yes	9	Yes	63	Yes
21	KONGLE VAISHNAVI VIVEKANAND	3	Yes	6	Yes	10	Yes	9	Yes	56	Yes
22	GAIKWAD VAISHNAVI VIJAY	2	Yes	6	Yes	10	Yes	9	Yes	67	Yes
23	DONGRE SAKSHI SANDIP	3	Yes	6	Yes	10	Yes	7	Yes	60	Yes
24	DEDGE APURVA ANIL	3	Yes	6	Yes	9	Yes	9	Yes	57	Yes
25	KAMTHE AISHWARYA PURUSHOTTAM	2	Yes	AB	Yes	10	Yes	9	Yes	70	Yes
26	NALGIRE SHWETA ANIL	2	Yes	6	Yes	10	Yes	10	Yes	55	Yes
27	NAGPURE SHWETA VINOD	2	Yes	6	Yes	10	Yes	9	Yes	53	Yes
28	KHANDELWAL PALAK MURLIDHAR	AB	NA	AB	NA	10	Yes	10	Yes	57	Yes
29	DHAPODKAR SIDDHI SURYAKANT	3	Yes	AB	NA	10	Yes	10	Yes	56	Yes
30	KANDE SAKSHI RAJENDRA	1	Yes	5	Yes	10	Yes	10	Yes	63	Yes
31	KAMBLE RAJNANDINI SHIVAJI	2	Yes	6	Yes	10	Yes	10	Yes	52	Yes
32	KAMBLE SAKSHI MUKUNDRAJ	AB	NA	AB	NA	10	Yes	9	Yes	66	Yes

1

Tool No 1 Presentation

Yes= 28 No=00 NA=04

Total No. of Yes/Total No. of Students

28/32

0.87

2

Tool No 2 Assignments

Yes= 26 No=00 NA=06

Total No. of Yes/Total No. of Students

26/32

0.81

3

Tool No 3 Test1

Yes= 31 No=00 NA=01

Total No. of Yes/Total No. of Students

31/32

0.96

4

Tool No 4 Test2

Yes= 32 No=00 NA=00

Total No. of Yes/Total No. of Students

32/32

1

5

Tool No 5 Final Exam

Yes= 32 No=00 NA=00

Total No. of Yes/Total No. of Students

32/32

1

Internal Average

Assessment=Presentation+Assignment+Test1+Test2

$(0.87+0.81+0.96+1)/4=3.64/4=0.91$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.91 = ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT

AVERAGE ATTAINMENT VALUE IS 1 = ATTAINMENT LEVEL= 3

Overall course Attainment= 0.5xIA attainment+ 0.5xUR attainment

Overall course Attainment= 0.5x3+ 0.5x3 Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (3X 3)/3 =3

PO3 (2 X 3)/3= 2

PO4 (1X3)/3=1

PO5 (2 X 3)/3= 2

Average PO attainment=2.2

PSO Attainment

PSO1scorresponding cell value in table 3 X Overall CO attainment value)/3

$$\text{PSO1}-(3 \times 3)/3=3$$

$$\text{PSO2}-(2 \times 3)/3=2$$

$$\text{PSO3}-(2 \times 3)/3=2$$

Average PSO attainment=2.33

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
TYBBA(CA) Semester V (CBCS) Pattern 2019
Core java
Course code 503

Teacher Name: Archana Thorat

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
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PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 501)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO503.1 Understand Java Fundamentals, Basics of Java, Structure of Java Program, Execution Process of java Program, JDK Tools. Array and String, Packages and Classes, java.util, java.lang.	Lecture method, Use of ICT, Practical	Assignment Test PPT
CO503.2 Understand various concepts like Class and Object, Constructor, Method Overloading	Lecture method, Use of ICT, Practical	Assignment Test PPT
CO503.3 Understand Inheritance, Package and Collect0ion	Lecture method , Use of ICT, Practical	Assignment Test PPT
CO503.4 Understand File and Exception Handling	Lecture method , Use of ICT, Practical	Assignment Test PPT
CO503.5 Learn Applet, AWT, Event, Swing programming	Lecture method Use of ICT, Practical	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-501 TY.BBA(CA) Course	Specific Outcomes: CSO
1	<p>Java Fundamentals</p> <p>1.1 Introduction to Java.</p> <p>1.1 Features of Java</p> <p>1.2 Basics of Java: - Data types, variable, expression, operators, constant.</p> <p>1.3 Structure of Java Program.</p> <p>1.4 Execution Process of java Program.</p> <p>1.5 JDK Tools.</p> <p>1.6 Command Line Arguments.</p> <p>1.7 Array and String:</p> <p>1.7.1 Single Array & Multidimensional Array</p> <p>1.7.2 String, String Buffer</p> <p>1.8 Built In Packages and Classes :</p> <p>1.8.1 java.util:- Scanner, Date, Math etc.</p> <p>1.8.2 java.lang</p>	<p>To understand the basic fundamentals and important terminologies of java.</p>
2	<p>Classes, Objects and Methods</p> <p>2.1 Class and Object</p> <p>2.2 Object reference</p> <p>2.3 Constructor: Constructor Overloading</p> <p>2.4 Method: Method Overloading, Recursion, Passing and</p> <p>Returning object form Method</p> <p>2.5 new operator, this and static keyword, finalize() method</p> <p>2.6 Nested class, Inner class, and Anonymous inner class</p>	<p>To understand how to create classes and objects and new functionalities like Method overloading, constructor, Nested class, finalize ().</p>
3	<p>Inheritance, Package and Collection</p> <p>3.1 Overview of Inheritance</p> <p>3.2 inheritance in constructor</p> <p>3.3 Inheriting Data members and Methods,</p> <p>3.4 Multilevel Inheritance – method overriding</p> <p>Handle multilevel constructors</p> <p>3.5 Use of super and final keyword</p> <p>3.6 Interface:</p> <p>3.7 Creation and Implementation of an interface, Interface reference</p> <p>3.8 Interface inheritance</p> <p>3.9 Dynamic method dispatch</p> <p>3.10 Abstract class</p>	<p>Get detailed knowledge of collection, package and Inheritance</p>

	<p>3.11 Comparison between Abstract Class and interface</p> <p>3.12 Access control</p> <p>3.13 Packages</p> <p>3.13.1 Packages Concept</p> <p>3.13.2 Creating user defined packages</p> <p>3.13.3 Java Built in packages</p> <p>3.13.4 Import statement, Static import</p> <p>3.14 Collection</p> <p>3.14.1 Collection Framework.</p> <p>3.14.2 Interfaces: Collection, List, Set</p> <p>3.14.3 Navigation: Enumeration, Iterator, List Iterator</p> <p>3.14.4 Classes: LinkedList, Array List, Vector, HashSet</p>	
4	<p>File and Exception Handling</p> <p>Exception</p> <p>4.1 Exception and Error</p> <p>4.2 Use of try, catch, throw, throws and finally</p> <p>4.3 Built in Exception</p> <p>4.4 Custom exception</p> <p>4.5 Throw able Class.</p> <p>File Handling</p> <p>4.6 Overview of Different Stream (Byte Stream, Character stream)</p> <p>4.7 Readers and Writers class</p> <p>4.8 File Class</p> <p>4.9 File Input Stream , File Output Stream</p> <p>4.10 Input Stream Reader and Output Stream Writer class</p> <p>4.11 FileReader and FileWriter class</p> <p>4.12 Buffered Reader class.</p>	Understand exception and file handling in detailed
5	<p>Applet, AWT, Event and Swing Programming</p> <p>Applet</p> <p>5.1 Introduction</p> <p>5.2 Type sapplet</p> <p>5.3 Applet Lifecycle</p> <p>5.3.1 Creating applet</p> <p>5.3.2 Applet tag</p> <p>5.4 Applet Classes</p> <p>5.4.1 Color</p> <p>5.4.2 Graphics</p> <p>5.4.3 Font</p> <p>AWT</p> <p>5.5 Components and container used inAWT</p> <p>5.6 Layout managers</p> <p>5.7 Listeners and Adapter classes</p> <p>5.8 Event Delegation model</p>	To understand how to create small internet applications using applet and know how to create GUI in java using AWT and Swing.

	<p>Swing</p> <p>5.9 Introduction to Swing Component and Container Classes</p> <p>5.10 Exploring Swing Controls- J Label and Image Icon, J Text Field, The Swing Buttons J Button, J Toggle Button, J Check Box, J Radio Button, J Tabbed Pane, J Scroll Pane, J List, J Table, J Combo Box, Swing Menus, Dialogs, J File Open, J Color Chooser.</p>	
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Table1

Course Outcome	Course Outcome
CO 503.1	Understand Java Fundamentals, Basics of Java, Structure of Java Program, Execution Process of java Program, JDK Tools. Array and String, Packages and Classes, java.util, java.lang.
CO 503.2	Understand various concepts like Class and Object, Constructor, Method Overloading
CO 503.3	Understand Inheritance, Package and Collection
CO 503.4	Understand File and Exception Handling
CO 503.5	Learn Applet, AWT, Event, Swing programming

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 503.1	3	3	3	2	3
CO 503.2	3	3	3	2	3
CO 503.3	3	3	3	2	3
CO 503.4	3	3	3	2	3
CO 503.5	3	3	3	2	3
CO 503.6	3	3	3	2	3
CO 503	3	3	3	2	3

Table 3

CO	PSO1	PSO2	PSO3
CO503.1	3	1	3
CO 503.2	3	1	3
CO 503.3	3	1	3
CO 503.4	3	1	3
CO 503.5	3	1	3
CO 503.6	3	1	3
CO 503	3	1	3

Sr no	Name Of Students	To ol No 1 Pr ese nta tio n	Tar get> =40	To ol No 2 Assi gn ments	Target >=40	To ol No 3 Test 1	Target >=40	To ol No 4 Te st2	Ta rge t> =4 0	To ol No 5 Final Exam	Target> =40
1	JAMKHEDKAR ARPITA MADHUKAR	2	Yes	6	Yes	8	Yes	7	Yes	57	Yes
2	MHASKE SANDHYA DILIP	3	Yes	6	Yes	10	Yes	7	Yes	62	Yes
3	KUMBHAR SAKSHI GANESH	2	Yes	6	Yes	10	Yes	8	Yes	70	Yes
4	VAWAL VAISHNAVI SANTOSH	2	Yes	6	Yes	9	Yes	8	Yes	70	Yes
5	TODKAR VAISHNAVI VAIJANATH	3	Yes	5	Yes	7	Yes	AB	NA	55	Yes
6	PHADTARE JANHAVI AMIT	AB	NA	AB	NA	9	Yes	9	Yes	70	Yes
7	LAYGUDE AMRUTA SANJAY	3	Yes	6	Yes	10	Yes	8	Yes	67	Yes
8	JADHAV SHREYA C	2	Yes	6	Yes	9	Yes	8	Yes	60	Yes
9	JOSHI LABHANSHI SUNDARSHAN	2	Yes	6	Yes	9	Yes	9	Yes	59	Yes
10	NEHERE NIDHI CHANDRASHEKHAR	3	Yes	6	Yes	10	Yes	9	Yes	69	Yes
11	UMBARJE MEERA DEVIDAS	3	Yes	6	Yes	9	Yes	8	Yes	62	Yes
12	RODE POOJA RAMDAS	AB	Yes	6	Yes	9	Yes	6	Yes	56	Yes
13	PARMAR PRITI UTTAM	2	Yes	6	Yes	9	Yes	9	Yes	59	Yes
14	TAPKIR TANVI MOHAN	AB	NA	AB	NA	10	Yes	8	Yes	45	Yes
15	MORE DHANASHREE	3	Yes	6	Yes	9	Yes	9	Yes	70	Yes

	GANESH								s		
16	MAHANAVAR KALYANI GORAKH	3	Yes	6	Yes	10	Yes	9	Yes	55	Yes
17	FALKE VAISHNAVI SANTOSH	AB	NA	6	Yes	8	Yes	6	Yes	56	Yes
18	DESHMANE PRANALI SANTOSH	3	Yes	6	Yes	8	Yes	9	Yes	59	Yes
19	JADHAV NIKITA ANKUSH	2	Yes	6	Yes	10	Yes	8	Yes	60	Yes
20	PANCHGALLE SHARDHA VIRBHADRA	2	Yes	6	Yes	8	Yes	7	Yes	63	Yes
21	KONGLE VAISHNAVI VIVEKANAND	3	Yes	6	Yes	8	Yes	7	Yes	56	Yes
22	GAIKWAD VAISHNAVI VIJAY	2	Yes	AB	NA	9	Yes	8	Yes	67	Yes
23	DONGRE SAKSHI SANDIP	2	Yes	6	Yes	7	Yes	7	Yes	60	Yes
24	DEDGE APURVA ANIL	3	Yes	6	Yes	7	Yes	9	Yes	57	Yes
25	KAMTHE AISHWARYA PURUSHOTTAM	2	Yes	AB	NA	5	Yes	8	Yes	70	Yes
26	NALGIRE SHWETA ANIL	3	Yes	6	Yes	9	Yes	9	Yes	53	Yes
27	NAGPURE SHWETA VINOD	3	Yes	6	Yes	9	Yes	7	Yes	53	Yes
28	KHANDELWAL PALAK MURLIDHAR	AB	NA	5	Yes	9	Yes	9	Yes	57	Yes
29	DHAPODKAR SIDDHI SURYAKANT	4	Yes	AB	NA	9	Yes	AB	NA	56	Yes
30	KANDE SAKSHI RAJENDRA	3	Yes	AB	NA	7	Yes	7	Yes	63	Yes
31	KAMBLE RAJNANDINI SHIVAJI	2	Yes	6	Yes	9	Yes	6	Yes	52	Yes
32	KAMBLE SAKSHI MUKUNdraJ	3	Yes	AB	NA	9	Yes	8	Yes	66	Yes

1 Tool No 1 Presentation

Yes= 27 No=00 NA=05

Total No. of Yes/Total No. of Students

29/32

0.84

2 Tool No 2 Assignments

Yes= 25 No=00 NA=07

Total No. of Yes/Total No. of Students

25/32

0.78

3 Tool No 3 Test1

Yes=32 No=00 NA=00
 Total No. of Yes/Total No. of Students
 32/32
 1

4 Tool No 4 Test2

Yes= 30 No=4 NA=02
 Total No. of Yes/Total No. of Students
 30/32
 0.93

5 Tool No 5 Final Exam

Yes=32 No=00 NA=00
 Total No. of Yes/Total No. of Students
 32/32
 1

Internal Average Assessment=Presentation+Assignment+Test1+Test2
 $(0.84+0.78+1+0.93)/4=3.55/4=0.88$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.88 =
 ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT
 AVERAGE ATTAINMENT VALUE IS 1 =
 ATTAINMENT LEVEL= 3

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1= (corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 $(3 \times 3)/3=3$

PO2 $(3 \times 3)/3 =3$

PO3 $(3 \times 3)/3= 2$

PO4 $(2 \times 3)/3=2$

PO5 $(3 \times 3)/3= 3$

Average PO attainment=2.6

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (1X3)/3=0.33

PSO3 (3X3)/3=3

Average PSO attainment=2.11

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
TYBBA(CA) Semester V
Python
Course code 504

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 504)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able CO504.1:Understanding the basic concept in Python, variables and constants	Lecture method , Use of ICT, Practical	Assignment Test, PPT
CO504.2: Learn concept of files and study modules and packages.	Lecture method , Use of ICT, Practical	Assignment Test, PPT
CO504.3: Learn Object Oriented Concepts, inheritance	Lecture method , Use of ICT, Practical	Assignment Test, PPT
CO504.4:Understanding concept of exception, techniques to handle exceptions	Lecture method , Use of ICT, Practical	Assignment Test, PPT
CO504.5: Study Tkinter programming and understand about frames, buttons, labels etc.	Lecture method , Use of ICT, Practical	Assignment Test, PPT
CO504.6: Understand static analysis, data visualization, data modeling and machine learning.	Lecture method , Use of ICT, Practical	Assignment Test, PPT

Course Specific Outcomes:

Unit	Course Cs-504 T.Y.BBA(CA) Course	Specific Outcomes: CSO
1	Unit 1: Introduction to Python 1.1 History, feature of Python, setting up path, working with python Interpreter, basic syntax, variable and data types, operators 1.2 Conditional statements-If, If-Else, nested if-else, Examples. 1.3 Looping-For, While, Nested loops, Examples 1.4 Control Statements-Break, Continue, Pass. 1.5 String Manipulation-Accessing String, Basic Operations, String Slices, Function and Methods, Examples. 1.6 Lists-Introduction, accessing list, operations, working with lists, function & methods. 1.7 Tuple-Introduction, Accessing tuples, operations working, function & methods, Examples. 1.8 Dictionaries-Introduction, Accessing values in dictionaries, working with	To understand the basic fundamentals and important terminologies of python

	dictionaries, properties, function, Examples. 1.9 Functions-Defining a function, calling a function, types of function, function arguments, anonymous function, global & local variable, Examples	
2	Unit 2: Modules and Packages 2.1 Built in Modules 2.1.1 Importing modules in python program 2.1.2 Working with Random Modules. 2.1.3 E.g. - built-ins, time, date time, calendar, sys, etc 2.2 User Defined functions 2.2.1 Structure of Python Modules 2.3 Packages 2.3.1 Predefined Packages 2.3.2 User defined Packages	To get knowledge of Modules and Packages
3	Unit 3: Classes ,Objects and Inheritance 3.1 Classes and Objects 3.1.1 Classes as User Defined Data Type 3.1.2 Objects as Instances of Classes 3.1.3 Creating Class and Objects 3.1.4 Creating Objects By Passing Values 3.1.5 Variables & Methods in a Class 3.2 Inheritance 3.2.1 Single Inheritance 3.2.2 Multilevel Inheritance 3.2.3 Multiple Inheritance 3.2.4 Hybrid Inheritance 3.2.5 Hierarchical Inheritance 3.2.6 IS-A Relationship and HAS-A Relationship	To understand how to create classes and objects
4	Unit 4: Exception Handling 4.1 Python Exception 4.2 Common Exception 4.3 Exception handling in Python (try-except-else) 4.4 The except statement with no exception 4.5 Multiple Exception 4.6 The try-finally clause 4.7 Custom Exception and assert statement	To Understand exception handling in detailed
5	Unit 5: GUI Programming 5.1 Introduction 5.2 Tkinter programming 5.4 Tkinter widgets 5.5 Frame 5.6 Button 5.7 Label 5.8 Entry	To Understand GUI Programming
6	Unit 6: Python Libraries 6.1 Statistical Analysis- NumPy, SciPy, Pandas, StatsModels 6.2 Data Visualization- Matplotlib, Seaborn, Plotly 6.3 Data Modelling and Machine Learning- Scikit-learn, XGBoost, Eli5 6.4 Deep Learning- TensorFlow, Pytorch, Keras 6.5 Natural Language Processing (NLP)- NLTK, SpaCy, Gensim	To Understand python libraries in detailed

Table1

Course Outcome	Course Outcome
CO 504.1	CO1: Understanding the basic concept in Python, variables and constants

CO 504.2	CO2: Learn concept of files and study modules and packages.
CO 504.3	CO3: Learn Object Oriented Concepts, inheritance
CO 504.4	CO4: Understanding concept of exception, techniques to handle exceptions
CO 504.5	CO5: Study Tkinter programming and understand about frames, buttons, labels etc.
CO 504.6	CO6: Understand static analysis, data visualization, data modeling and machine learning.

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 504.1	3	3	1	-	3
CO 504.2	3	3	1	-	3
CO 504.3	3	3	1	-	3
CO 504.4	3	3	1	-	3
CO 504.5	3	3	1	-	3
CO 504.6	3	3	1	-	3
CO 504	3	3	1	-	3

Table 3

CO	PSO1	PSO2	PSO3
CO 504.1	2	2	3
CO 504.2	2	2	3
CO 504.3	2	2	3
CO 504.4	2	2	3
CO 504.5	2	2	3
CO 504.6	2	2	3
CO 504	2	2	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	JAMKHEDKAR ARPITA MADHUKAR	3	Yes	6	Yes	8	Yes	6	Yes	57	Yes
2	MHASKE SANDHYA DILIP	3	Yes	6	Yes	8	Yes	8	Yes	57	Yes
3	KUMBHAR SAKSHI GANESH	4	Yes	6	Yes	9	Yes	9	Yes	69	Yes

4	VAWAL VAISHNAVI SANTOSH	2	Yes	6	Yes	10	Yes	8	Yes	63	Yes
5	TODKAR VAISHNAVI VAIJANATH	AB	NA	6	Yes	3	No	4	Yes	42	Yes
6	PHADTARE JANHAVI AMIT	3	Yes	AB	NA	10	Yes	9	Yes	70	Yes
7	LAYGUDE AMRUTA SANJAY	4	Yes	6	Yes	10	Yes	9	Yes	66	Yes
8	JADHAV SHREYA C	3	Yes	6	Yes	9	Yes	7	Yes	57	Yes
9	JOSHI LABHANSHI SUNDARSHAN	3	Yes	6	Yes	9	Yes	10	Yes	62	Yes
10	NEHERE NIDHI CHANDRASHEKHAR	4	Yes	6	Yes	9	Yes	10	Yes	70	Yes
11	UMBARJE MEERA DEVIDAS	3	Yes	6	Yes	7	Yes	7	Yes	53	Yes
12	RODE POOJA RAMDAS	3	Yes	6	Yes	9	Yes	8	Yes	57	Yes
13	PARMAR PRITI UTTAM	3	Yes	6	Yes	10	Yes	10	Yes	59	Yes
14	TAPKIR TANVI MOHAN	1	Yes	AB	NA	10	Yes	10	Yes	55	Yes
15	MORE DHANASHREE GANESH	3	Yes	5	Yes	10	Yes	9	Yes	67	Yes
16	MAHANAVAR KALYANI GORAKH	3	Yes	6	Yes	10	Yes	9	Yes	50	Yes
17	FALKE VAISHNAVI SANTOSH	AB	NA	6	Yes	9	Yes	9	Yes	59	Yes
18	DESHMANE PRANALI SANTOSH	2	Yes	6	Yes	10	Yes	9	Yes	60	Yes
19	JADHAV NIKITA ANKUSH	3	Yes	6	Yes	10	Yes	9	Yes	52	Yes
20	PANCHGALLE SHARDHA VIRBHADRA	3		6	Yes	9	Yes	8	Yes	56	Yes
21	KONGLE VAISHNAVI VIVEKANAND	3	Yes	6	Yes	9	Yes	7	Yes	64	Yes
22	GAIKWAD VAISHNAVI VIJAY	3	Yes	6	Yes	9	Yes	9	Yes	69	Yes
23	DONGRE SAKSHI SANDIP	2	Yes	6	Yes	9	Yes	7	Yes	56	Yes
24	DEDGE APURVA ANIL	3	Yes	6	Yes	10	Yes	6	Yes	64	Yes
25	KAMTHE AISHWARYA PURUSHOTTAM	3	Yes	AB	Yes	8	Yes	7	Yes	56	Yes
26	NALGIRE SHWETA ANIL	2	Yes	6	Yes	8	Yes	10	Yes	43	Yes
27	NAGPURE SHWETA VINOD	2	Yes	6	Yes	9	Yes	6	Yes	57	Yes
28	KHANDELWAL PALAK MURLIDHAR	AB	NA	AB	NA	10	Yes	9	Yes	60	Yes
29	DHAPODKAR SIDDHI SURYAKANT	3	Yes	AB	NA	7	Yes	8	Yes	60	Yes
30	KANDE SAKSHI RAJENDRA	2	Yes	6	Yes	9	Yes	8	Yes	64	Yes
31	KAMBLE RAJNANDINI	3	Yes	6	Yes	9	Yes	7	Yes	62	Yes

	SHIVAJI										
32	KAMBLE SAKSHI MUKUNDRAJ	3	Yes	AB	NA	10	Yes	9	Yes	59	Yes

1 Tool No 1 Presentation

Yes=29 No=00 NA=03

Total No. of Yes/Total No. of Students

19/32

0.9

2 Tool No 2 Assignments

Yes= 26 No=00 NA=06

Total No. of Yes/Total No. of Students

26/32

0.81

3 Tool No 3 Test1

Yes= 31 No=01 NA=00

Total No. of Yes/Total No. of Students

31/32

0.96

4 Tool No 4 Test2

Yes= 32 No=00 NA=00

Total No. of Yes/Total No. of Students

32/32

1

5 Tool No 5 Final Exam

Yes= 32 No=00 NA=00

Total No. of Yes/Total No. of Students

32/32

1

Internal Average Assessment=Presentation+Assignment+Test1+Test2

$(0.9+.81+.96+1)/4=3.67/4=0.91$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVRAGE ATTAIMNMENT VALUE IS 0.79 =
ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT
AVERAGE ATTAINMENT VALUE IS 1 = ATTAINMENT
LEVEL= 3

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (3X 3)/3 =3

PO3 (1 X 3)/3= 1

PO4 (0X3)/3=0

PO5 (3 X 3)/3= 3

Average PO attainment=2

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1-(2X3)/3=2

PSO2-(2X3)/3=2

PSO3-(3X3)/3=3

Average PSO attainment=2.33

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
TYBBA(CA) Semester VI
Recent Trends in IT
Course code 601

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 601)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able CO601.1: Discuss the basic concepts AI.	Lecture method , Use of ICT	Assignment, Test, PPT
CO601.2: Apply basic, intermediate and advanced techniques to mine the data.	Lecture method , Use of ICT	Assignment, Test, PPT
CO601.3: Provide an overview of the concept of Spark programming.	Lecture method , Use of ICT	Assignment, Test, PPT

Course Specific Outcomes:

Unit	Course Cs-601 T.Y.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to recent trends 1.1 Artificial Intelligence 1.2 Data Warehouse 1.3 Data Mining 1.4 Spark	To study introduction of recent trends.
2	Artificial Intelligence 2.1 Introduction& Concept of AI 2.2 Applications of AI 2.3 Artificial Intelligence, Intelligent Systems, Knowledge –based Systems, AI Techniques 2.4 Early work in AI & related fields. 2.5 Defining AI problems as a State Space Search 2.6 Search and Control Strategies 2.7 Problem Characteristics 2.8 AI Problem: Water Jug Problem, Tower of Hanoi, Missionaries & Cannibal Problem	To learn Artificial Intelligence and its technique.
3	AI Search Techniques 3.1 Blind Search Techniques: BFS, DFS, DLS, Iterative deepening Search, Bidirectional Search, and Uniform cost Search 3.2 Heuristic search techniques: Generate and test, Hill Climbing, Best First search, Constraint Satisfaction, Mean-End Analysis, A*, AO*	To learn AI Search Techniques
4	Data Warehousing 4.1 Introduction to Data warehouse 4.2 Structure of Data Warehouse 4.3 Advantages & uses of Data Warehouse 4.4 Architecture of Data Warehouse 4.5 Multidimensional data model 4.6 OLAP Vs. OLTP 4.7 OLAP Operations 4.8 Types of OLAP Servers: ROLAP versus MOLAP versus HOLAP	To learn architecture of Data Warehouse
5	Data Mining 5.1 Introduction to Data Mining 5.2 Data mining Task 5.3 Data mining issues 5.4 Data Mining versus Knowledge Discovery in Databases 5.5	To learn Data Mining and its technique

	Data Mining Verification vs. Discovery 5.6 Data Pre-processing – Need, Data Cleaning, Data Integration & Transformation, Data Reduction 5.7 Accuracy Measures: Precision, recall, F-measure, confusion matrix, cross-validation, bootstrap 5.8 Data Mining Techniques 5.9 Frequent item-sets and Association rule mining: Apriori algorithm, FP tree algorithm 5.10 Graph Mining: Frequent sub-graph mining 5.11 Software for data mining : R, Weka, Sample applications of data mining 5.12 Introduction to Text Mining, Web Mining, Spatial Mining, Temporal Mining	
6	Spark 6.1 Introduction to Apache Spark 6.2 Spark Installation 6.3 Apache Spark Architecture 6.4 Components of Spark 6.5 Spark RDDs 6.6 RDD Operations: Transformation & Actions 6.7 Spark SQL and Data Frames 6.8 Introduction to Kafka for Spark Streaming	To learn concept of Spark

Table1

Course Outcome	Course Outcome
CO 601.1	Discuss the basic concepts AI.
CO 601.2	Apply basic, intermediate and advanced techniques to mine the data.
CO 601.3	Provide an overview of the concept of Spark programming.

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 601.1	3	-	1	-	3
CO 601.2	3	1	1	-	3
CO 601.3	3	2	1	-	3
CO 601	3	1.5	1	-	3

Table 3

CO	PSO1	PSO2	PSO3
CO 601.1	2	3	3
CO 601.2	2	3	3
CO 601.3	2	3	3
CO 601	2	3	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >= 40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	JAMKHEDKAR ARPITA MADHUKAR	4	Yes	6	Yes	4	Yes	3	No	28	Yes
2	MHASKE SANDHYA DILIP	4	Yes	6	Yes	4	Yes	4	Yes	22	No
3	KUMBHAR SAKSHI GANESH	4	Yes	6	Yes	4	Yes	4	Yes	37	Yes
4	VAWAL VAISHNAVI SANTOSH	4	Yes	6	Yes	3	No	4	Yes	29	Yes
5	TODKAR VAISHNAVI VAIJANATH	4	Yes	6	Yes	3	No	4	Yes	18	No
6	PHADTARE JANHAVI AMIT	4	Yes	6	Yes	5	Yes	7	Yes	39	Yes
7	LAYGUDE AMRUTA SANJAY	4	Yes	6	Yes	4	Yes	8	Yes	32	Yes
8	JADHAV SHREYA C	4	Yes	6	Yes	5	Yes	7	Yes	26	No
9	JOSHI LABHANSHI SUNDARSHAN	4	Yes	6	Yes	6	Yes	9	Yes	46	Yes
10	NEHERE NIDHI CHANDRASHEKHAR	4	Yes	6	Yes	4	Yes	6	Yes	45	Yes
11	UMBARJE MEERA DEVIDAS	2	Yes	AB	NA	4	Yes	6	Yes	37	Yes
12	RODE POOJA RAMDAS	4	Yes	6	Yes	4	Yes	3	No	29	Yes
13	PARMAR PRITI UTTAM	4	Yes	6	Yes	4	Yes	7	Yes	45	Yes
14	TAPKIR TANVI MOHAN	4	Yes	6	Yes	1	No	4	Yes	16	No
15	MORE DHANASHREE GANESH	4	Yes	6	Yes	2	No	5	Yes	40	Yes
16	MAHANAVAR KALYANI GORAKH	4	Yes	6	Yes	3	No	5	Yes	31	Yes
17	FALKE VAISHNAVI SANTOSH	4	Yes	6	Yes	5	Yes	4	Yes	39	Yes
18	DESHMANE PRANALI SANTOSH	2	Yes	6	Yes	2	No	3	No	27	No
19	JADHAV NIKITA ANKUSH	4	Yes	6	Yes	2	No	2	No	21	No
20	PANCHGALLE SHARDHA VIRBHADRA	4	Yes	6	Yes	3	No	4	Yes	32	Yes
21	KONGLE VAISHNAVI VIVEKANAND	4	Yes	6	Yes	5	Yes	6	Yes	48	Yes
22	GAIKWAD VAISHNAVI VIJAY	4	Yes	6	Yes	3	No	5	Yes	27	No

23	DONGRE SAKSHI SANDIP	4	Yes	6	Yes	3	No	6	Yes	24	No
24	DEDGE APURVA ANIL	4	Yes	6	Yes	4	Yes	6	Yes	35	Yes
25	KAMTHE AISHWARYA PURUSHOTTAM	AB	NA	AB	NA	3	No	5	Yes	22	No
26	NALGIRE SHWETA ANIL	4	Yes	6	Yes	2	No	5	Yes	19	No
27	NAGPURE SHWETA VINOD	4	Yes	6	Yes	4	Yes	4	Yes	32	Yes
28	KHANDELWAL PALAK MURLIDHAR	4	Yes	6	Yes	1	No	4	Yes	11	No
29	DHAPODKAR SIDDHI SURYAKANT	4	Yes	AB	NA	3	No	5	Yes	28	Yes
30	KANDE SAKSHI RAJENDRA	AB	NA	6	Yes	3	No	5	Yes	22	No
31	KAMBLE RAJNANDINI SHIVAJI	4	Yes	6	Yes	4	Yes	5	Yes	35	Yes
32	KAMBLE SAKSHI MUKUNDRAJ	4	Yes	6	Yes	4	Yes	5	Yes	24	No

1 Tool No 1 Presentation

Yes= 30 No=00 NA=02
Total No. of Yes/Total No. of
Students
30/32
0.93

2 Tool No 2 Assignments

Yes= 29 No=00 NA=03
Total No. of Yes/Total No. of
Students
29/32
0.9

3 Tool No 3 Test1

Yes=15 No=17 NA=00
Total No. of Yes/Total No. of
Students
15/32
0.46

4 Tool No 4 Test2

Yes=29 No=04 NA=00
Total No. of Yes/Total No. of
Students
28/32
0.87

5 Tool No 5 Final Exam

Yes= 19 No=13 NA=00
 Total No. of Yes/Total No. of
 Students
 19/32
 0.59

Internal Average
 Assessment=Presentation+Assignment+Test1+Test2
 $(0.93+0.90+0.46+0.90)/4=3.19/4=0.79$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS
 0.79 = ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE
 ATTAINMENT
 AVERAGE ATTAINMENT VALUE IS
 0.59 = ATTAINMENT LEVEL= 2

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 $(3 \times 3)/3=3$

PO2 $(1.5 \times 3)/3 =1.5$

PO3 $(1 \times 3)/3= 1$

PO4 $(0 \times 3)/3=0$

PO5 $(3 \times 3)/3= 3$

Average PO attainment=1.7

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1- $(2 \times 3)/3=2$

PSO2- $(3 \times 3)/3=3$

PSO3-(3X3)/3=3

Average PSO attainment=2.66

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
TYBBA(CA) Semester VI
Software Testing
Course code 602

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 602)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO602.1 Students will be introduced to testing tools	Lecture method , Use of ICT	Assignment Test PPT
CO602.2. Students will acquire Knowledge of Basic SQA.	Lecture method , Use of ICT	Assignment Test PPT
CO602.3. Students will be able to design basic Test Cases.	Lecture method , Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-602 T.Y.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction 1.1 Introduction, Nature of errors, 1.2 Testing Objectives 1.3 Testing principles 1.4 Testing fundamentals, 1.5 Software reviews, Formal Technical reviews, 1.6 Inspection and walkthrough 1.7 Testing Life Cycle	To get knowledge of Fundamentals of testing
2	Approaches to Testing –Testing Methods 2.1 White Box Testing and types of white box testing 2.2 Test Case Design 2.3 Black Box Testing and types of black box testing 2.4 Gray Box Testing	To learn Types of testing in details
3	Software Testing Strategies &Software metrics 3.1 Software Testing Process 3.2 Unit Testing 3.3 Integration- Top-down ,Bottom up 3.4 System Testing 3.5 Acceptance Testing (alpha, Beta testing) 3.6 Validation and Verification 3.7 Big Bang Approach 3.8 Sandwich approach 3.9 Performance Testing 3.10 Regression Testing 3.11 Smoke Testing 3.13 Load Testing	To learn Types of testing in details
4	Software metrics 4.1 Introduction 4.2 Basic Metrics –size-oriented metric, Function –oriented metric 4.3 Cyclometric Complexity Metrics Examples on Cyclometric Complexity	To learn Software Metrics
5	Testing for Specialized Environments 5.1 Testing GUI's 5.2 Testing of Client/Server Architectures 5.3 Testing Documentation and Help Facilities 5.4 Testing for Real-Time System	Able to test on GUI's and all real time systems

6	Testing Tools& Software Quality Assurance (Introduction) 6.1 JUnit, Apache JMeter, Win runner 6.2 Load runner, Rational Robot 6.3 Quality Concepts, Quality Movement, Background Issues, SQA activities 6.4 Formal approaches to SQA 6.5 Statistical Quality Assurance 6.6 Software Reliability 6.7 The ISO 9000 Quality Standards 6.8 SQA Plan 6.9 Six sigma 6.10 Informal Reviews	Able to do testing with Tools and SQA
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Table1

Course Outcome	Course Outcome
CO 602.1	Students will be introduced to testing tools
CO 602.2	Students will acquire Knowledge of Basic SQA.
CO 602.3	Students will be able to design basic Test Cases.

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 602.1	3	1	1	-	3
CO 602.2	3	1	1	-	3
CO 602.3	3	1	1	-	3
CO 602	3	1	1	-	3

Table 3

CO	PSO1	PSO2	PSO3
CO 602.1	3	2	3
CO 602.2	3	3	3
CO 602.3	3	3	3
CO 602	3	2.8	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test	Target >=40	Tool No 4 Test	Target >=40	Tool No 5 Final Exam	Target >=40
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		4		6		10		10		70	
1	JAMKHEDKAR ARPITA MADHUKAR	4	Yes	6	Yes	4	Yes	4	Yes	28	Yes
2	MHASKE SANDHYA DILIP	4	Yes	6	Yes	4	Yes	4	Yes	28	Yes
3	KUMBHAR SAKSHI GANESH	3	Yes	6	Yes	5	Yes	4	Yes	32	Yes
4	VAWAL VAISHNAVI SANTOSH	3	Yes	6	Yes	4	Yes	3	No	33	Yes
5	TODKAR VAISHNAVI VAIJANATH	2	Yes	5	Yes	5	Yes	4	Yes	15	No
6	PHADTARE JANHAVI AMIT	3	Yes	6	Yes	6	Yes	5	Yes	43	Yes
7	LAYGUDE AMRUTA SANJAY	3	Yes	6	Yes	6	Yes	6	Yes	32	Yes
8	JADHAV SHREYA C	3	Yes	6	Yes	6	Yes	7	Yes	28	Yes
9	JOSHI LABHANSHI SUNDARSHAN	4	Yes	6	Yes	7	Yes	8	Yes	45	Yes
10	NEHERE NIDHI CHANDRASHEKHAR	4	Yes	6	Yes	5	Yes	7	Yes	43	Yes
11	UMBARJE MEERA DEVIDAS	2	Yes	6	Yes	3	No	8	Yes	33	Yes
12	RODE POOJA RAMDAS	2	Yes	6	Yes	5	Yes	6	Yes	32	Yes
13	PARMAR PRITI UTTAM	4	Yes	6	Yes	7	Yes	8	Yes	44	Yes
14	TAPKIR TANVI MOHAN	2	Yes	6	Yes	5	Yes	4	Yes	28	Yes
15	MORE DHANASHREE GANESH	4	Yes	5	Yes	6	Yes	5	Yes	33	Yes
16	MAHANAVAR KALYANI GORAKH	4	Yes	6	Yes	4	Yes	7	Yes	29	Yes
17	FALKE VAISHNAVI SANTOSH	3	Yes	6	Yes	5	Yes	5	Yes	33	Yes
18	DESHMANE PRANALI SANTOSH	AB	NA	6	Yes	3	No	3	No	29	Yes
19	JADHAV NIKITA ANKUSH	2	Yes	6	Yes	3	No	4	Yes	29	Yes
20	PANCHGALLE SHARDHA VIRBHADRA	2	Yes	6	Yes	5	Yes	4	Yes	29	Yes
21	KONGLE VAISHNAVI VIVEKANAND	2	Yes	6	Yes	6	Yes	5	Yes	41	Yes
22	GAIKWAD VAISHNAVI VIJAY	2	Yes	6	Yes	5	Yes	4	Yes	28	Yes
23	DONGRE SAKSHI SANDIP	3	Yes	6	Yes	5	Yes	4	Yes	28	Yes
24	DEDGE APURVA ANIL	4	Yes	6	Yes	5	Yes	6	Yes	36	Yes
25	KAMTHE AISHWARYA PURUSHOTTAM	4	Yes	AB	NA	5	Yes	3	No	29	Yes
26	NALGIRE SHWETA ANIL	3	Yes	6	Yes	5	Yes	5	Yes	28	Yes
27	NAGPURE SHWETA VINOD	3	Yes	6	Yes	5	Yes	5	Yes	28	Yes
28	KHANDELWAL PALAK MURLIDHAR	2	Yes	6	Yes	4	Yes	3	Yes	18	No
29	DHAPODKAR SIDDHI SURYAKANT	2	Yes	6	Yes	4	Yes	6	Yes	11	No
30	KANDE SAKSHI RAJENDRA	AB	NA	6	Yes	4	Yes	5	Yes	32	Yes

31	KAMBLE RAJNANDINI SHIVAJI	2	Yes	6	Yes	5	Yes	3	Yes	32	Yes
32	KAMBLE SAKSHI MUKUNDRAJ	2	Yes	6	Yes	3	No	2	No	30	Yes

1 Tool No 1 Presentation

Yes= 30 No=00 NA=02

Total No. of Yes/Total No. of Students

30/32

0.93

2 Tool No 2 Assignments

Yes= 31 No=00 NA=01

Total No. of Yes/Total No. of Students

31/32

0.96

3 Tool No 3 Test1

Yes=28 No=04 NA=00

Total No. of Yes/Total No. of Students

28/32

0.87

4 Tool No 4 Test2

Yes=28 No=04 NA=00

Total No. of Yes/Total No. of Students

28/32

0.87

5 Tool No 5 Final Exam

Yes= 29 No=03 NA=00

Total No. of Yes/Total No. of Students

29/32

0.906

Internal Average

Assessment=Presentation+Assignment+Test1+Test2

$(0.93+0.96+0.87+0.87)/4=3.63/4=0.90$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVRAGE ATTAIMNMENT VALUE IS 0.90 =
ATTAINMENT LEVEL= 3

EXTERNAL AVRAGE ATTAIMENT

AVERAGE ATTAINMENT VALUE IS 0.90=
ATTAINMENT LEVEL= 3

Overall course Attainment= 0.5x1A attainment+ 0.5xUR attainment

Overall course Attainment= 0.5x3+ 0.5x3 Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (1X 3)/3 =1

PO3 (1 X 3)/3= 1

PO4 (0X3)/3=0

PO5 (3 X 3)/3= 3

Average PO attainment=1.6

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1-(3X3)/3=3

PSO2-(2.8X3)/3=2.8

PSO3-(3X3)/3=3

Average PSO attainment=2.93

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
TYBBA(CA) Semester V (CBCS) Pattern 2019
Advance Java
Course code 603

Teacher Name: Archana Thorat

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 603)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO603.1 Students will be able Understand Database connectivity with MS access and SQL server.	Lecture method, Use of ICT, Practical	Assignment Test PPT
CO603.2 To understand concepts of thread and develop application using multithreading.	Lecture method, Use of ICT, Practical	Assignment Test PPT
CO603.3 To understand client server technology	Lecture method , Use of ICT, Practical	Assignment Test PPT
CO603.4 To understand creation of dynamic web pages and creation of dynamic web pages through server.	Lecture method , Use of ICT, Practical	Assignment Test PPT
CO603.5 Learn Spring Environment and Hibernate configuration and Mapping Files	Lecture method Use of ICT, Practical	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-603 TY.BBA(CA) Course	Specific Outcomes: CSO
1	JDBC 1.1 Introduction 1.2 JDBC Architecture. 1.3 JDBC Process 1.4 Working with ResultSet Interface.	Students will get the knowledge the concepts of JDBC Programming
2	Multithreading: 2.1 Introduction to Multithreading. 2.2 Thread creation: Thread Class, Runnable Interface. 2.3 Life cycle of Thread. 2.4 Thread Priority. 2.5 Execution of Thread Application. 2.6 Synchronization and Interthread communication.	Students will know the concepts of Multithreading and Socket Programming.
3	Networking: 3.1 Overview of Networking.	Students understand Network basics and reading from and

	3.2 Networking Basics: Port Number, Protocols and classes. 3.3 Sockets, Reading from and Writing to a Socket.	writing into a Socket
4	Servlet and JSP 4.1 Introduction to Servlet 4.2 Types of Servlet: Generic Servlet and Http Servlet 4.3 Life cycle of servlet 4.4 Session Tracking. 4.5 Servlet with database. JSP 4.6 Introduction to JSP. 4.7 JSP Life Cycle. 4.8 Components of JSP. 4.9 JSP with Database	Students understand the servlet and JSP with connectivity to Database.
5	Spring & Hibernate Spring: 5.1 Introduction 5.2 Applications and Benefits of spring 5.3 Architecture and Environment Setup 5.4 Hello World Example 5.5 Core Spring- IoC Containers, Spring Bean Definition, Scope, Lifecycle Hibernate 5.6 Architecture and Environment 5.7 Configuration, Sessions, Persistent Class 5.8 Mapping Files, Mapping Types 5.9 Examples	Students will develop applications in Spring and hibernate.

Table1

Course Outcome	Course Outcome
CO 603.1	Students will be able understand Database connectivity with MS access and SQL server.
CO 603.2	To understand concepts of thread and develop application using multithreading.
CO 603.3	To understand client server technology
CO 603.4	To understand creation of dynamic web pages and creation of dynamic web pages through server.
CO 603.5	Learn Spring Environment and Hibernate configuration and Mapping Files

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 603.1	3	3	1	2	3
CO 603.2	3	3	1	2	3
CO 603.3	3	3	1	2	3
CO 603.4	3	3	1	2	3
CO 603.5	3	3	1	2	3
CO 603	3	3	1	2	3

Table 3

CO	PSO1	PSO2	PSO3
CO 603.1	3	2	3
CO 603.2	3	2	3
CO 603.3	3	2	3
CO 603.4	3	2	3
CO 603.5	3	2	3
CO 603	3	2	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test2	Target >=40	Tool No 5 Final Exam	Target >=40
1	JAMKHEDKAR ARPITA MADHUKAR	2	Yes	6	Yes	8	Yes	7	Yes	8	No
2	MHASKE SANDHYA DILIP	3	Yes	6	Yes	10	Yes	7	Yes	5	No
3	KUMBHAR SAKSHI GANESH	2	Yes	6	Yes	10	Yes	8	Yes	18	No
4	VAWAL VAISHNAVI SANTOSH	2	Yes	6	Yes	9	Yes	8	Yes	13	No
5	TODKAR VAISHNAVI VAIJANATH	3	Yes	5	Yes	7	Yes	AB	NA	6	No
6	PHADTARE JANHAVI AMIT	AB	NA	AB	NA	9	Yes	9	Yes	30	Yes
7	LAYGUDE AMRUTA SANJAY	3	Yes	6	Yes	10	Yes	8	Yes	18	No
8	JADHAV SHREYA C	2	Yes	6	Yes	9	Yes	8	Yes	15	No
9	JOSHI LABHANSHI SUNDARSHAN	2	Yes	6	Yes	9	Yes	9	Yes	19	No
10	NEHERE NIDHI CHANDRASHEKHAR	3	Yes	6	Yes	10	Yes	9	Yes	34	Yes
11	UMBARJE MEERA DEVIDAS	3	Yes	6	Yes	9	Yes	8	Yes	19	No
12	RODE POOJA RAMDAS	AB	NA	6	Yes	9	Yes	6	Yes	8	No
13	PARMAR PRITI UTTAM	2	Yes	6	Yes	9	Yes	9	Yes	29	Yes
14	TAPKIR TANVI MOHAN	AB	NA	AB	NA	10	Yes	8	Yes	13	No
15	MORE DHANASHREE GANESH	3	Yes	6	Yes	9	Yes	9	Yes	29	Yes
16	MAHANAVAR KALYANI GORAKH	3	Yes	6	Yes	10	Yes	9	Yes	10	No
17	FALKE VAISHNAVI SANTOSH	AB	NA	6	Yes	8	Yes	6	Yes	31	Yes
18	DESHMANE PRANALI SANTOSH	3	Yes	6	Yes	8	Yes	9	Yes	12	No
19	JADHAV NIKITA ANKUSH	2	Yes	6	Yes	10	Yes	8	Yes	15	No
20	PANCHGALLE SHARDHA VIRBHADRA	2	Yes	6	Yes	8	Yes	7	Yes	26	No
21	KONGLE VAISHNAVI VIVEKANAND	3	Yes	6	Yes	8	Yes	7	Yes	34	Yes

22	GAIKWAD VAISHNAVI VIJAY	2	Yes	AB	NA	9	Yes	8	Yes	2	No
23	DONGRE SAKSHI SANDIP	2	Yes	6	Yes	7	Yes	7	Yes	9	No
24	DEDGE APURVA ANIL	3	Yes	6	Yes	7	Yes	9	Yes	16	No
25	KAMTHE AISHWARYA PURUSHOTTAM	2	Yes	AB	NA	5	Yes	8	Yes	12	No
26	NALGIRE SHWETA ANIL	3	Yes	6	Yes	9	Yes	9	Yes	24	No
27	NAGPURE SHWETA VINOD	3	Yes	6	Yes	9	Yes	7	Yes	32	Yes
28	KHANDELWAL PALAK MURLIDHAR	AB	NA	5	Yes	9	Yes	9	Yes	5	No
29	DHAPODKAR SIDDHI SURYAKANT	4	Yes	AB	NA	9	Yes	Ab	NA	8	No
30	KANDE SAKSHI RAJENDRA	3	Yes	AB	NA	7	Yes	7	Yes	13	No
31	KAMBLE RAJNANDINI SHIVAJI	2	Yes	6	Yes	9	Yes	6	Yes	38	Yes
32	KAMBLE SAKSHI MUKUNDRAJ	3	Yes	AB	Yes	9	Yes	8	Yes	11	No

1 Tool No 1 Presentation

Yes= 27 No=00 NA=5

Total No. of Yes/Total No. of Students

27/32

0.84

2 Tool No 2 Assignments

Yes= 25 No=00 NA=7

Total No. of Yes/Total No. of Students

25/32

0.78

3 Tool No 3 Test1

Yes=32 No=00 NA=00

Total No. of Yes/Total No. of Students

32/32

1

4 Tool No 4 Test2

Yes= 30 No=0 NA=02

Total No. of Yes/Total No. of Students

30/32

0.93

5 Tool No 5 Final Exam

Yes= 8 No=24 NA=00
Total No. of Yes/Total No. of Students
8/32
0.25

Internal Average Assessment=Presentation+Assignment+Test1+Test2
(0.84+0.78+1+0.93)/4=3.55/4=0.88

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.88 = ATTAINMENT
LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT
AVERAGE ATTAINMENT VALUE IS 0.25 = ATTAINMENT
LEVEL= 1

Overall course Attainment= 0.5xIA attainment+ 0.5xUR attainment

Overall course Attainment= 0.5x3+ 0.5x3 Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (1X 3)/3 =3

PO3 (1 X 3)/3= 1

PO4 (2X3)/3=2

PO5 (3 X 3)/3= 3

Average PO attainment=2.4

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (2X3)/3=2

PSO3 (3X3)/3=3

Average PSO attainment=2.66

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
TYBBA(CA) Semester V (CBCS) Pattern 2019
Dot Net Framework
Course code 604

Teacher Name: Ashwini Mungle

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 604)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO604.1 Students will be able to understand Microsoft framework architecture.	Lecture method, Use of ICT, Practical	Assignment Test PPT
CO604.2 Understand development of windows application.	Lecture method, Use of ICT, Practical	Assignment Test PPT
CO604.3 To learn data access mechanism.	Lecture method , Use of ICT, Practical	Assignment Test PPT
CO604.4 Students understand create and consume libraries.	Lecture method , Use of ICT, Practical	Assignment Test PPT
CO604.5 To learn create a web application.	Lecture method Use of ICT, Practical	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-604 SY.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to DOT NET FRAMEWORK 1.1 What is Framework? 1.2 Architecture of Dot Net Framework 1.2.1 Common Language Runtime 1.2.2 Common Type System(CTS) 1.2.3 Common Language Specification(CLS) 1.2.3 JIT Compilers 1.2.3 Base Class Library 1.3 IDE (Integrated Development Environment) 1.4 Event Driven Programming	Get the knowledge of the basic concept of Framework ,CLS, CTS,IDE
2	Introduction to VB.Net 2.1 Basics of VB.Net 2.1.1 Operators 2.1.2 Data Types 2.1.3 Control Structures 2.2Build Windows Applications 2.2.1 Controls: Form, Text Box, Button, Label, Check Box, List Box,	Students will understand VB.Net Controls, Datagridview

	<p>Combo Box, Radio Button, Date Time Picker, Month Calender, Timer, Progressbar, Scrollbar, PictureBox, Image Box, Image List, TreeView, ListView, Toolbar, Status Bar, Data gridview</p> <p>2.2.2 Menus and Pop Up Menu</p> <p>2.2.3 Predefined Dialog controls: Color, Save ,File, Open, Font</p> <p>2.2.4 DialogBox – Input Box(), Message Box, Msg Box()</p>	
3	<p>Introduction to C#</p> <p>3.1 Language Fundamentals</p> <p>3.1.1 Data type and Control Constructs</p> <p>3.1.2 Value and Reference Types, Boxing</p> <p>3.1.3 Arrays</p> <p>3.1.4 String class and its various operations</p> <p>3.1.5 Functions</p> <p>3.2 Object Oriented Concepts</p> <p>3.2.1 Defining classes and Objects</p> <p>3.2.2 Access modifiers</p> <p>3.2.3 Constructors</p> <p>3.2.4 Inheritance</p> <p>3.2.5 Interface</p> <p>3.2.6 Abstract Class</p> <p>3.2.7 Method Overloading and Overriding</p> <p>3.2.8 Delegates</p>	<p>Students understand C# Fundamentals and Object Oriented Concept.</p>
4	<p>Introduction to ASP.NET</p> <p>4.1 What is ASP.NET?</p> <p>4.2 ASP.NET Page Life Cycle</p> <p>4.3 Architecture of ASP.NET</p> <p>4.4 Forms, WebPages, HTML forms,</p> <p>4.5 Request & Response in Non-ASP.NET pages</p> <p>4.6 Using ASP.NET Server Controls</p> <p>4.7 Overview of Control structures</p> <p>4.8 Functions</p> <p>4.9 HTML events</p> <p>4.9.1 ASP.NET Web control events</p> <p>4.9.2 Event driven programming and postback</p> <p>4.10 Introduction to Web forms</p> <p>4.10.1 Web Controls</p> <p>4.10.2 Server Controls</p> <p>4.10.3 Client Controls</p> <p>4.10.4 Navigation Controls</p> <p>4.10.5 Validations</p> <p>4.10.6 Master Page</p> <p>4.10.7 State Management Techniques</p>	<p>Know the concepts Architecture of ASP.Net and Web forms controls.</p>
5	Architecture of Ado.Net	Students understand the different

	5.1 Basics of ADO.NET 5.1.1 Connection Object 5.1.2 Command Object 5.1.3 Dataset 5.1.4 Data Table 5.1.5 Data Reader Object 5.1.6 Data Adapter Object 5.2 DataGridView & Data Binding: Insert, Update, Delete records 5.3 Navigation Using Data Source	Connection Objects, Dataset, Data Table and DataGridView, Data Binding, Navigating using Data Source.
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Table 1

Course Outcome	Course Outcome
CO 604.1	Students will be able to understand Microsoft framework architecture.
CO 604.2	Understand development of windows application.
CO 604.3	To learn data access mechanism.
CO 604.4	Students understand create and consume libraries.
CO 604.5	Students understand create and consume libraries.

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 604.1	3	3	1	2	3
CO 604.2	3	3	1	2	3
CO 604.3	3	3	1	2	3
CO 604.4	3	3	1	2	3
CO 604.5	3	3	1	2	3
CO 604.6	3	3	1	2	3
CO 604	3	3	1	2	3

Table 3

CO	PSO1	PSO2	PSO3
CO 604.1	3	2	3
CO 604.2	3	2	3
CO 604.3	3	2	3
CO 604.4	3	2	3
CO 604.5	3	2	3
CO 604.6	3	2	3
CO 604	3	2	3

Sr no	Name of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	JAMKHEDKAR ARPITA MADHUKAR	2	Yes	6	Yes	8	Yes	7	Yes	29	Yes
2	MHASKE SANDHYA DILIP	3	Yes	6	Yes	10	Yes	7	Yes	9	No
3	KUMBHAR SAKSHI GANESH	2	Yes	6	Yes	10	Yes	8	Yes	32	Yes
4	VAWAL VAISHNAVI SANTOSH	2	Yes	6	Yes	9	Yes	8	Yes	19	No
5	TODKAR VAISHNAVI VAIJANATH	3	Yes	5	Yes	7	Yes	AB	NA	5	No
6	PHADTARE JANHAVI AMIT	AB	NA	AB	NA	9	Yes	9	Yes	28	Yes
7	LAYGUDE AMRUTA SANJAY	3	Yes	6	Yes	10	Yes	8	Yes	28	Yes
8	JADHAV SHREYA C	2	Yes	6	Yes	9	Yes	8	Yes	19	No
9	JOSHI LABHANSHI SUNDARSHAN	2	Yes	6	Yes	9	Yes	9	Yes	33	Yes
10	NEHERE NIDHI CHANDRASHEKH AR	3	Yes	6	Yes	10	Yes	9	Yes	31	Yes
11	UMBARJE MEERA DEVIDAS	3	Yes	6	Yes	9	Yes	8	Yes	28	Yes
12	RODE POOJA RAMDAS	AB	NA	6	Yes	9	Yes	6	Yes	5	No
13	PARMAR PRITI UTTAM	2	Yes	6	Yes	9	Yes	9	Yes	31	Yes
14	TAPKIR TANVI MOHAN	AB	NA	AB	NA	10	Yes	8	Yes	6	No
15	MORE DHANASHREE GANESH	3	Yes	6	Yes	9	Yes	9	Yes	30	Yes
16	MAHANAVAR KALYANI GORAKH	3	Yes	6	Yes	10	Yes	9	Yes	23	No
17	FALKE VAISHNAVI SANTOSH	AB	NA	6	Yes	8	Yes	6	Yes	28	Yes
18	DESHMANE	3	Yes	6	Yes	8	Yes	9	Yes	10	No

	PRANALI SANTOSH								s		
19	JADHAV NIKITA ANKUSH	2	Yes	6	Yes	10	Yes	8	Yes	19	No
20	PANCHGALLE SHARDHA VIRBHADRA	2	Yes	6	Yes	8	Yes	7	Yes	22	No
21	KONGLE VAISHNAVI VIVEKANAND	3	Yes	6	Yes	8	Yes	7	Yes	28	Yes
22	GAIKWAD VAISHNAVI VIJAY	2	Yes	AB	NA	9	Yes	8	Yes	29	Yes
23	DONGRE SAKSHI SANDIP	2	Yes	6	Yes	7	Yes	7	Yes	18	No
24	DEDGE APURVA ANIL	3	Yes	6	Yes	7	Yes	9	Yes	28	Yes
25	KAMTHE AISHWARYA PURUSHOTTAM	2	Yes	AB	NA	5	Yes	8	Yes	24	No
26	NALGIRE SHWETA ANIL	3	Yes	6	Yes	9	Yes	9	Yes	12	No
27	NAGPURE SHWETA VINOD	3	Yes	6	Yes	9	Yes	7	Yes	28	Yes
28	KHANDELWAL PALAK MURLIDHAR	AB	NA	5	Yes	9	Yes	9	Yes	4	No
29	DHAPODKAR SIDDHI SURYAKANT	4	Yes	AB	NA	9	Yes	AB	NA	15	No
30	KANDE SAKSHI RAJENDRA	3	Yes	AB	NA	7	Yes	7	Yes	17	No
31	KAMBLE RAJNANDINI SHIVAJI	2	Yes	6	Yes	9	Yes	6	Yes	29	Yes
32	KAMBLE SAKSHI MUKUNDRAJ	3	Yes	AB	NA	9	Yes	8	Yes	12	No

1 Tool No 1 Presentation

Yes= 27 No=00 NA=05

Total No. of Yes/Total No. of Students

27/32

0.84

2 Tool No 2 Assignments

Yes= 25 No=00 NA=07

Total No. of Yes/Total No. of Students

25/32

0.78

3 Tool No 3 Test1

Yes=32 No=00 NA=00

Total No. of Yes/Total No. of Students

32/32

1

4 Tool No 4 Test2

Yes= 30 No=0 NA=02

Total No. of Yes/Total No. of Students

30/32

0.93

5 Tool No 5 Final Exam

Yes= 15 No=17 NA=00

Total No. of Yes/Total No. of Students

15/32

0.46

Internal Average Assessment=Presentation+Assignment+Test1+Test2

$(0.84+0.78+1+0.93)/4=3.55/4=0.88$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.88 =

ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT

AVERAGE ATTAINMENT VALUE IS 0.46 =

ATTAINMENT LEVEL= 2

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 $(3 \times 3)/3=3$

PO2 $(1 \times 3)/3 =3$

PO3 $(1 \times 3)/3= 1$

PO4 $(2 \times 3)/3=2$

$$PO5 (3 \times 3) / 3 = 3$$

$$\text{Average PO attainment} = 2.4$$

PSO Attainment

$$PSO1 = (\text{corresponding cell value in table 3} \times \text{Overall CO attainment value}) / 3$$

$$PSO1 (3 \times 3) / 3 = 3$$

$$PSO2 (2 \times 3) / 3 = 2$$

$$PSO3 (3 \times 3) / 3 = 3$$

$$\text{Average PSO attainment} = 2.66$$

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
SYBBA(CA) Semester III (CBCS) Pattern 2019
Subject: Digital Marketing
Course code 301
Credit 3

Teacher Name: Ashwini Mungle

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 301)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO301.1 Students will be able understand E-Commerce	Lecture method, Use of ICT	Assignment Test PPT
CO301.2 Learn Introduction to New Age Media (Digital) Marketing	Lecture method Use of ICT	Assignment Test PPT
CO301.3 To learn Creating Initial Digital Marketing Plan	Lecture method , Use of ICT	Assignment Test PPT
CO301.4 Understand the Marketing using Web Sites	Lecture method , Use of ICT	Assignment Test PPT
CO301.5 Learn Search Engine Optimization	Lecture method Use of ICT	Assignment Test PPT
CO301.6 Understand Customer Relationship Management	Lecture method Use of ICT	Assignment Test PPT
CO301.7 Learn Social Media Marketing	Lecture method Use of ICT	Lecture method Use of ICT
CO301.8 Understand Digital Marketing Budgeting	Lecture method Use of ICT	Lecture method Use of ICT

Course Specific Outcomes:

Unit	Course Cs-301 SY.BBA(CA) Course	Specific Outcomes: CSO
1	E-Commerce 1.1 Introduction 1.2 Understanding Internet Marketing 1.3 Search Engine Optimization 1.4 Search Engine Marketing 1.5 Email Marketing 1.6 Digital Display Marketing	Helps the students to get to Know about Ecommerce Concept and Understanding what is Internet Marketing
2	Introduction to New Age Media (Digital) Marketing 2.1 What is Digital Marketing 2.2 Digital vs. Real Marketing 2.3 Digital Marketing Channels 2.4 Types of Digital Marketing(Overview)-Internet Marketing ,Social Media Marketing, Mobile Marketing	1) Students get the knowledge of What are Digital Marketing concepts which is the basic requirements of every organization when it targets a new Group. 2)Students Get an Knowledge for Doing Project and understanding the flow of System and to attract the audience.
3	Creating Initial Digital Marketing Plan	Students get the knowledge of

	<p>3.1 Content management 3.2 SWOT analysis: Strengths, Weaknesses, Opportunities, and Threats 3.3 Target group analysis EXERCISE: Define a target group</p>	<p>Various Keys supports of SWOT analysis: Strengths, Weaknesses, Opportunities, and Threats.</p>
4	<p>Marketing using Web Sites 4.1 Web design 4.2 Optimization of Web sites 4.3 MS Expression Web EXERCISE: Creating web sites, MS Expression</p>	<p>Give the detail description on Optimization of Web sites and why it is necessary and Explained how MS Expression Web works and what are various uses</p>
5	<p>Search Engine Optimization 5.1 SEO Optimization 5.2 Writing the SEO content EXERCISE: Writing the SEO content</p>	<p>Students are able to understand the concept of SEO Optimization and what are essential factors involved in it and how to write the SEO along with its importance in Digital world.</p>
6	<p>Customer Relationship Management 6.1 Introduction to CRM 6.2 CRM platform 6.3 CRM models EXERCISE: CRM strategy</p>	<p>1) Students are able to understand the concept of Introduction to CRM 2) Give details description of what is CRM platform and how it is helpful in Digital Marketing. 3) Explained various stages of CRM models And CRM strategy regarding it..</p>
7	<p>Social Media Marketing 7.1 Understanding Social Media Marketing 7.2 Social Networking (Facebook, LinkedIn, Twitter, etc.) Social Media (Blogging, Video Sharing - Youtube, Photosharing – Instagram, Podcasts) 7.3 Web analytics - levels 7.4 Modes of Social Media Marketing 7.4.1 Creating a Facebook page Visual identity of a Facebook page , Types of publications, Facebook Ads , Creating Facebook Ads , Ads Visibility 7.4.2 Business opportunities and Instagram options Optimization of Instagram profiles , Integrating Instagram with a Web Site and other social networks , Keeping up with posts 7.4.3 Business tools on LinkedIn Creating campaigns on LinkedIn , Analyzing visitation on LinkedIn 7.4.4 Creating business accounts on YouTube YouTube , Advertising , YouTube Analytics 7.4.5 E-mail marketing E-mail marketing plan , E-mail marketing campaign analysis , Keeping up with conversions 7.5 Digital Marketing tools: Google Ads, FaceBook Ads,</p>	<p>1) Understanding Social Media Marketing Social Networking. 2) Understanding the concepts of Web analytics – levels 3) Understanding the different Modes of Social Media Marketing and how actually it works</p>

	Google Analytic, Zapier, Google Keyword Planner EXERCISE: Social Media Marketing plan. EXERCISE: Making a Facebook page and Google Ads	
8	Digital Marketing Budgeting 8.1 Resource planning 8.2 Cost estimating 8.3 Cost budgeting 8.4 Cost control	Understanding the Resource planning And in terms of Cost estimating, Cost budgeting, Cost control

Table1

Course Outcome	Course Outcome
CO 301.1	Students will be able understand E-Commerce
CO 301.2	Learn Introduction to New Age Media (Digital) Marketing
CO 301.3	To learn Creating Initial Digital Marketing Plan
CO 301.4	Understand the Marketing using Web Sites
CO 301.5	Learn Search Engine Optimization
CO 301.6	Understand Customer Relationship Management
CO 301.7	Learn Social Media Marketing
CO 301.8	Understand Digital Marketing Budgeting

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 301.1	3	-	2	2	3
CO 301.2	3	-	2	2	3
CO 301.3	3	-	2	2	3
CO 301.4	3	-	2	2	3
CO 301.5	3	-	2	2	3
CO 301.6	3	-	2	2	3
CO 301.7	3	-	2	2	3
CO 301.8	3	-	2	2	3
CO 301	3	-	2	2	3

Table 3

CO	PSO1	PSO2	PSO3
CO 301.1	3	1	3
CO 301.2	3	1	3

CO 301.3	3	1	3
CO 301.4	3	1	3
CO 301.5	3	1	3
CO 301.6	3	1	3
CO 301.7	3	1	3
CO 301.8	3	1	3
CO 301	3	1	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	SURYAVANSHI DIPTI DEEPAK	4	Yes	6	Yes	7	Yes	10	Yes	45	Yes
2	HULAWALE KANCHAN RAM	3	Yes	6	Yes	7	Yes	6	Yes	45	Yes
3	RANAWARE ANKITA ANKUSH	2	Yes	6	Yes	8	Yes	6	Yes	63	Yes
4	AHIR UNNATI VINAYAK	4	Yes	4	Yes	9	Yes	6	Yes	70	Yes
5	BARTAKKE VEDICA RAJENDRA	2	Yes	6	Yes	7	Yes	5	Yes	67	Yes
6	CHAVAN SANIYA MANOHAR	3	Yes	6	Yes	7	Yes	7	Yes	66	Yes
7	KAMBLE PURVA VISHAL	2	Yes	6	Yes	9	Yes	8	Yes	62	Yes
8	RATHOD SNEHA SACHIN	3	Yes	6	Yes	6	Yes	7	Yes	64	Yes
9	KUMBHARE SAKSHI ANAND	3	Yes	6	Yes	9	Yes	7	Yes	52	Yes
10	HAGAWANE TANVI RAMDAS	2	Yes	6	Yes	6	Yes	4	Yes	55	Yes
11	GHONE ISHA SACHIN	2	Yes	AB	NA	6	Yes	9	Yes	57	Yes
12	JINGARE RAVINA SANJAY	3	Yes	6	Yes	8	Yes	10	Yes	70	Yes
13	CHORGHE ISHA SANJAY	2	Yes	6	Yes	6	Yes	5	Yes	70	Yes
14	DAYAL TEJAS RAVINDRA	2	Yes	6	Yes	9	Yes	7	Yes	63	Yes
15	BHOSALE PURVA VASANT	3	Yes	6	Yes	9	Yes	10	Yes	70	Yes
16	GHARAT AKANSHA ANIL	2	Yes	6	Yes	7	Yes	9	Yes	68	Yes
17	KAMBLE SHWETA VISHWANATH	2	Yes	6	Yes	8	Yes	10	Yes	59	Yes
18	DHANGAR NITA NARSING	2	Yes	6	Yes	8	Yes	5	Yes	63	Yes
19	CHAVAN ROHINI BABASAHEB	2	Yes	6	Yes	8	Yes	6	Yes	67	Yes
20	SONAWANE SHRUTI SHARAD	2	Yes	6	Yes	8	Yes	9	Yes	62	Yes

21	KACHI AISHWARYA RAJENDRA	2	Yes	6	Yes	8	Yes	5	Yes	63	Yes
22	DHORE DHANSHREE CHANDRAKANT	2	Yes	6	Yes	7	Yes	7	Yes	55	Yes
23	GHATUL NIKITA SOMNATH	2	Yes	AB	NA	7	Yes	6	Yes	69	Yes
24	WAGHMARE PRIYANKA SHIVPUTRA	3	Yes	AB	NA	9	Yes	10	Yes	67	Yes
25	CHAUDHARI JANHAVI GANESH	3	Yes	6	Yes	9	Yes	9	Yes	70	Yes
26	CHOUHAN SANSKRITI LAKHANLAL	2	Yes	6	Yes	9	Yes	5	Yes	66	Yes
27	PARMAR PALLAVI UTTAM	2	Yes	6	Yes	9	Yes	10	Yes	67	Yes
28	CHANDANE DIKSHITA BALASAHEB	3	Yes	6	Yes	7	Yes	10	Yes	67	Yes
29	KAMBLE ANJALI AJAY	AB	NA	AB	NA	5	Yes	6	Yes	49	Yes
30	CHAVAN PRERANA RAVINDRA	2	Yes	6	Yes	9	Yes	9	Yes	70	Yes
31	KHAN ALIYA	AB	NA	4	Yes	8	Yes	7	Yes	70	Yes

Tool No 1 Presentation

Yes= 29 No=00 NA=02
Total No. of Yes/Total No. of
Students
29/31
0.94

Tool No 2 Assignments

Yes= 27 No=00 NA=04
Total No. of Yes/Total No. of
Students
27/31
0.87

Tool No 3 Test1

Yes= 31 No=00 NA=00
Total No. of Yes/Total No. of
Students
31/31
1

Tool No 4 Test2

Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of
Students
31/31
1

Tool No 5 Final Exam

Yes= 31 No=00 NA=00
Total No. of Yes/Total No. of
Students
31/31
1

Internal Average
Assessment=Presentation+As
sessment+Test1+Test2
 $(0.94+0.87+1+1)/4=3.76/4=0.94$
91

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVRAGE ATTAIGNMENT VALUE IS 0.91 = ATTAIGNMENT LEVEL= 3

EXTERNAL AVRAGE ATTAIGNMENT

AVRAGE ATTAIGNMENT VALUE IS 1 = ATTAIGNMENT LEVEL= 3

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (0X 3)/3 =0

PO3 (3 X 3)/3= 2

PO4 (2X3)/3=2

PO5 (3 X 3)/3= 3

Average PO attainment=2

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (1X3)/3=1

PSO3 (3X3)/3=3

Average PSO attainment=2.33

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
SYBBA(CA) Semester III (CBCS) Pattern 2019
Data Structure
Course code 302
Credit 3

Teacher Name: Ashwini Mungle

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 302)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO302.1 Students will be able understand Basic Concept and Introduction to Data Structure	Lecture method, practical, Use of ICT	Assignment Test PPT
CO302.2 Learn Linear Data Structure	Lecture method, practical, Use of ICT	Assignment Test PPT
CO302.3 To learn Linked List	Lecture method , practical, Use of ICT	Assignment Test PPT
CO302.4 Understand the Stacks	Lecture method , Use of ICT	Assignment Test PPT
CO302.5 4 Learn Queues	Lecture method, Practical Use of ICT	Assignment Test PPT
CO302.6 Understand Trees	Lecture method, practical, Use of ICT	Assignment Test PPT
CO302.7 Understand Graph concept	Lecture method,practical,Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs302-SY.BBA(CA) Course	Specific Outcomes: CSO
1	Basic Concept and Introduction to Data Structure 1.1 Pointers and dynamic memory allocation 1.2 Algorithm-Definition and characteristics 1.3 Algorithm Analysis -Space Complexity -Time Complexity - Asymptotic Notation Introduction to Data structure 1.4 Types of Data structure 1.5 Abstract Data Types (ADT) Introduction to Arrays and Structure 1.6 Types of array and Representation of array 1.7 Polynomial - Polynomial Representation - Evaluation of Polynomial - Addition of Polynomial 1.8 Self Referential Structure	Get the knowledge of the basic concept of Data Structure. Understand the concept Pointer, Array, ADT, polynomial.
2	Linear data structures 2.1 Introduction to Arrays - array representation 2.2 Sorting algorithms with efficiency - Bubble sort, Insertion sort, Merge sort, Quick Sort,	Students will understand Linear data structure and the concept of sorting algorithm, searching technique

	Selection Sort 2.3 Searching techniques –Linear Search, Binary search	
3	Linked List 3.1 Introduction to Linked List 3.2 Implementation of Linked List – Static & Dynamic representation, 3.3 Types of Linked List - Singly Linked list(All type of operation) - Doubly Linked list (Create , Display) - Circularly Singly Linked list (Create, Display) - Circularly Doubly Linked list (Create, Display) 3.4 Generalized linked list – Concept and Representation	Students understand implementation of Linked list and types of linked and All type of operation on linked list.
4	Stacks 4.1 Introduction 4.2 Representation- Static & Dynamic 4.3 Primitive Operations on stack 4.4 Application of Stack 4.5 Conversion of Infix, prefix, postfix , Evaluation of postfix and prefix 4.6 Simulating recursion using stack	Know the concepts of Stacks and primitive operation on stack ,Evaluation of stack
5	Queues 5.1 Introduction 5.2 Representation - Static & Dynamic 5.3 Primitive Operations on Queue 5.4 Circular queue, priority queue 5.5 Concept of doubly ended queue	Students understand the concept of Queue and primitive operation on queue ,Types of queue and the concept of doubly ended queue
6	Trees 6.1 Concept & Terminologies 6.2 Binary tree, binary search tree 6.3 Representation – Static and Dynamic 6.4 Operations on BT and BST – create, Insert, delete, , counting leaf, non-leaf & total nodes , 6.5 Tree Traversals (preorder, inorder, postorder) 6.6 Application - Heap sort 6.7 Height balanced tree- AVL trees- Rotations, AVL tree examples	Students understand the basic terminology of Tree, operation BT and BST,Tree traversal and Application of tree,AVL
7	Graph 7.1 Concept & terminologies 7.2 Graph Representation – Adjacency matrix, adjacency list, inverse Adjacency list, adjacency multilist, orthogonal list 7.3 Degree of Graph 7.4 Traversals – BFS and DFS 7.5 Applications – AOV network – topological sort, AOE network – criticalPath	Students understand the basic concept of Graph and terminology,Representation of tree and Traversals BFS and DFS.

Table1

Course Outcome	Course Outcome
CO 302.1	To understand need and types of data Structure. Ability to analyze algorithms and Algorithm correctness.
CO 302.2	To understand and implement different searching and sorting techniques

CO 302.3	To learn linear data structure linked list and solution for specific problems.
CO 302.4	To learn linear data structure stack and solution for specific problems.
CO 302.5	To learn linear data structure queue and Solution for specific problems.
CO 302.6	To learn Non-linear data structure trees and solution for specific problems.
CO 302.7	To learn Non-linear data structure graph and solution for specific problems.

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 302.1	3	3	2	1	3
CO 302.2	3	3	2	1	3
CO 302.3	3	3	2	1	3
CO 302.4	3	3	2	1	3
CO 302.5	3	3	2	1	3
CO 302.6	3	3	2	1	3
CO 302.7	3	3	2	1	3
CO 302	3	3	2	1	3

Table 3

CO	PSO1	PSO2	PSO3
CO 302.1	3	3	3
CO 302.2	3	3	3
CO 302.3	3	3	3
CO 302.4	3	3	3
CO 302.5	3	3	3
CO 302.6	3	3	3
CO 302.7	3	3	3
CO 302	3	3	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	SURYAVANSHI DIPTI DEEPAK	4	Yes	6	Yes	9	Yes	7	Yes	64	Yes
2	HULAWALE KANCHAN RAM	4	Yes	6	Yes	7	Yes	7	Yes	45	Yes
3	RANAWARE ANKITA ANKUSH	3	Yes	6	Yes	8	Yes	7	Yes	64	Yes
4	AHIR UNNATI VINAYAK	4	Yes	4	Yes	7	Yes	9	Yes	70	Yes
5	BARTAKKE VEDICA RAJENDRA	2	Yes	6	Yes	7	Yes	7	Yes	59	Yes
6	CHAVAN SANIYA MANOHAR	3	Yes	6	Yes	6	Yes	7	Yes	60	Yes
7	KAMBLE PURVA VISHAL	3	Yes	6	Yes	7	Yes	9	Yes	67	Yes
8	RATHOD SNEHA SACHIN	3	Yes	6	Yes	7	Yes	8	Yes	60	Yes
9	KUMBHARE SAKSHI ANAND	4	Yes	6	Yes	7	Yes	7	Yes	63	Yes
10	HAGAWANE TANVI RAMDAS	3	Yes	6	Yes	5	Yes	4	Yes	42	Yes
11	GHONE ISHA SACHIN	2	Yes	AB	NA	6	Yes	7	Yes	52	Yes
12	JINGARE RAVINA SANJAY	3	Yes	6	Yes	8	Yes	9	Yes	70	Yes
13	CHORGHE ISHA SANJAY	3	Yes	6	Yes	5	Yes	7	Yes	69	Yes
14	DAYAL TEJAS RAVINDRA	3	Yes	6	Yes	7	Yes	7	Yes	63	Yes
15	BHOSALE PURVA VASANT	3	Yes	6	Yes	10	Yes	10	Yes	66	Yes
16	GHARAT AKANSHA ANIL	2	Yes	6	Yes	9	Yes	9	Yes	64	Yes
17	KAMBLE SHWETA VISHWANATH	2	Yes	6	Yes	7	Yes	9	Yes	63	Yes
18	DHANGAR NITA NARSING	2	Yes	6	Yes	9	Yes	8	Yes	59	Yes
19	CHAVAN ROHINI BABASAHEB	3	Yes	6	Yes	7	Yes	9	Yes	70	Yes
20	SONAWANE SHRUTI SHARAD	2	Yes	6	Yes	9	Yes	9	Yes	55	Yes
21	KACHI AISHWARYA RAJENDRA	2	Yes	6	Yes	7	Yes	8	Yes	69	Yes
22	DHORE DHANSHREE CHANDRAKANT	2	Yes	6	Yes	8	Yes	9	Yes	59	Yes
23	GHATUL NIKITA SOMNATH	2	Yes	AB	NA	7	Yes	7	Yes	59	Yes
24	WAGHMARE PRIYANKA SHIVPUTRA	3	Yes	AB	NA	7	Yes	9	Yes	59	Yes

25	CHAUDHARI JANHAVI GANESH	4	Yes	6	Yes	10	Yes	9	Yes	70	Yes
26	CHOUHAN SANSKRITI LAKHANLAL	2	Yes	6	Yes	7	Yes	7	Yes	62	Yes
27	PARMAR PALLAVI UTTAM	2	Yes	6	Yes	10	Yes	10	Yes	67	Yes
28	CHANDANE DIKSHITA BALASAHEB	2	Yes	6	Yes	7	Yes	8	Yes	64	Yes
29	KAMBLE ANJALI AJAY	AB	NA	AB	NA	7	Yes	8	Yes	28	Yes
30	CHAVAN PRERANA RAVINDRA	3	Yes	6	Yes	8	Yes	9	Yes	66	Yes
31	KHAN ALIYA	AB	NA	AB	NA	6	Yes	8	Yes	64	Yes

Tool No 1 Presentation

Yes= 29 No=00 NA=02
Total No. of Yes/Total No. of
Students
29/31
0.94

Tool No 2 Assignments

Yes= 27 No=00 NA=05
Total No. of Yes/Total No. of
Students
26/31
0.84

Tool No 3 Test1

Yes= 30 No=01 NA=00
Total No. of Yes/Total No. of
Students
31/31
1

Tool No 4 Test2

Yes= 31 No=00 NA=00
Total No. of Yes/Total No. of
Students
31/31
1

Tool No 5 Final Exam

Yes= 31 No=00 NA=00
Total No. of Yes/Total No. of

Students

31/31

1

Internal Average

Assessment=Presentation+Assessment+Test1+Test2

$(0.94+0.84+1+1)/4=3.78/4=0.94$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

INTERNAL AVERAGE ATTAINMENT
VALUE IS 0.94 = ATTAINMENT
LEVEL= 3

EXTERNAL AVERAGE
ATTAINMENT
INTERNAL AVERAGE ATTAINMENT
VALUE IS 1 = ATTAINMENT
LEVEL= 3

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 $(3 \times 3)/3=3$

PO2 $(3 \times 3)/3 =3$

PO3 $(2 \times 3)/3= 2$

PO4 $(1 \times 3)/3=1$

PO5 $(3 \times 3)/3= 3$

Average PO attainment=2.4

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 $(3 \times 3)/3=3$

PSO2 (3X3)/3=3

PSO3 (3X3)/3=3

Average PSO attainment=3

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
SY BBA(CA) Semester III
Software Engineering
Course code 303

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision-making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 303)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO1: Understand the system concept and Identify unique features of various software application domains and classify software applications.	Lecture method, , Use of ICT	Assignment Test PPT
CO2: Choose and apply appropriate lifecycle model of software Development.	Lecture method, , Use of ICT	Assignment Test PPT
CO2: CO3: Identify user needs and formulate software specifications, and. Able to develop the SRS document for project.	Lecture method, , Use of ICT	Assignment Test PPT
CO4: Analyze software requirements by applying various modeling Techniques	Lecture method, , Use of ICT	Assignment Test PPT
CO5: Identify different types of risks in software development and able to distinguish different testing strategies and it's working.	Lecture method, , Use of ICT, Problem Solving	Assignment Test PPT
CO6: Estimate the quality of software process and make software Maintains.	Lecture method, , Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-303 S.Y.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to System Concepts 1.1 Definition 1.2 Basic Components 1.3 Elements of the System 1.4 Types of System 1.5 System Characteristics	Basic knowledge and understanding of the analysis and design of complex systems.
2	Introduction to Software Engineering 2.1 Definition of Software 2.2 Characteristics of Software 2.3 Definition of Software Engineering 2.4 Need for Software Engineering 2.5 Mc Call's Quality factors 2.6 The Software Process 2.7 Software Product and Process 2.8 V& V Model	Understand the need of software , types of Software and the main use of Software Engineering.
3	Software Development Life Cycle 3.1 Introduction 3.2 Activities of SDLC 3.3 A Generic Process Model 3.4 SDLC 3.5 Waterfall Model 3.6 Incremental Process Models 3.7 Prototyping Model 3.8 Spiral Model	Gain ability to design, develop, evaluate, test and maintain large-scale software systems and understood process models used in software Engineering.
4	Requirement Engineering 4.1 Introduction 4.2 Requirement Elicitation 4.3Requirement Elaboration 4.4 Requirement Gathering 4.5 Feasibility study 4.6 Fact Finding Techniques 4.7	Understand requirements Engineering Tasks and Requirements of Engineering Process

	SRS Format	
5	Analysis And Design Tools 5.1 Decision Tree and Decision Table 5.2 Data Flow Diagrams (DFD) (Up to 2nd level) 5.3 Data Dictionary 5.4 Elements of DD 5.5 Advantages and Disadvantages of DD 5.6 Input and Output Design 5.7 Structured Design Concepts 5.8 Structure Chart 5.9 Coupling and Cohesion 5.10 Compulsory Case Studies on above topics	Understood Designing and implement data flow analysis, Decision tress, Structure chart and diagram and data dictionary.
6	Software Testing 6.1 Definition 6.2 Software testing Process 6.3 Unit Testing 6.4 Integration Testing 6.5 System Testing	Understood the Software Testing Process and different types of testing.
7	Software Maintenance and Software Re-Engineering 7.1 Maintenance definition and types 7.2 Software reengineering 7.3 Reverse Engineering 7.4 Restructuring and forward Engineering.	Ability to do maintenance of software and understood different types of maintenance , Reverse Engineering and Restructuring and forward Engineering

Table1

Course Outcome	Course Outcome
CO 303.1	CO1: Understand the system concept and Identify unique features of various software application domains and classify software applications.
CO 303.2	CO2: Choose and apply appropriate lifecycle model of software Development.
CO 303.3	CO3: Identify user needs and formulate software specifications, and. Able to develop the SRS document for project.
CO 303.4	CO4: Analyze software requirements by applying various modeling Techniques
CO 303.5	CO5: Identify different types of risks in software development and able to distinguish different testing strategies and it's working.
CO 303.6	CO6: Estimate the quality of software process and make software Maintains.

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 303.1	3	2	3	1	2
CO 303.2	3	2	2	1	2
CO 303.3	3	3	2	1	2
CO 303.4	3	1	2	1	2
CO 303.5	3	3	2	1	2
CO 303.6	3	3	2	1	2
CO 303	3	2.3	2.1	1	2

Table 3

CO	PSO1	PSO2	PSO3
CO 303.1	3	3	2
CO 303.2	3	3	2
CO 303.3	3	3	2
CO 303.4	3	3	2
CO 303.5	3	3	2
CO 303.6	3	3	2
CO 303	3	3	2

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test2	Target >=40	Tool No 5 Final Exam	Target >=40
1	SURYAVANSHI DIPTI DEEPAK	4	Yes	6	Yes	9	Yes	7	Yes	69	Yes
2	HULAWALE KANCHAN RAM	3	Yes	6	Yes	9	Yes	6	Yes	59	Yes
3	RANAWARE ANKITA ANKUSH	3	Yes	6	Yes	10	Yes	7	Yes	53	Yes
4	AHIR UNNATI VINAYAK	3	Yes	6	Yes	9	Yes	7	Yes	66	Yes
5	BARTAKKE VEDICA RAJENDRA	AB	NA	6	Yes	9	Yes	8	Yes	62	Yes
6	CHAVAN SANIYA MANOHAR	3	Yes	6	Yes	9	Yes	6	Yes	62	Yes
7	KAMBLE PURVA VISHAL	4	Yes	6	Yes	9	Yes	7	Yes	56	Yes
8	RATHOD SNEHA SACHIN	3	Yes	6	Yes	7	Yes	7	Yes	62	Yes
9	KUMBHARE SAKSHI ANAND	4	Yes	6	Yes	9	Yes	7	Yes	64	Yes
10	HAGAWANE TANVI RAMDAS	4	Yes	6	Yes	9	Yes	5	Yes	49	Yes
11	GHONE ISHA SACHIN	AB	NA	5	Yes	8	Yes	7	Yes	46	Yes
12	JINGARE RAVINA SANJAY	3	Yes	6	Yes	9	Yes	8	Yes	62	Yes
13	CHORGHE ISHA SANJAY	3	Yes	6	Yes	9	Yes	7	Yes	67	Yes
14	DAYAL TEJAS RAVINDRA	3	Yes	6	Yes	10	Yes	8	Yes	59	Yes
15	BHOSALE PURVA VASANT	4	Yes	6	Yes	10	Yes	10	Yes	70	Yes
16	GHARAT AKANSHA ANIL	3	Yes	6	Yes	10	Yes	7	Yes	60	Yes
17	KAMBLE SHWETA	3	Yes	6	Yes	9	Yes	7	Yes	55	Yes

	VISHWANATH										s
18	DHANGAR NITA NARSING	3	Yes	6	Yes	8	Yes	7	Yes	64	Yes
19	CHAVAN ROHINI BABASAHEB	3	Yes	6	Yes	9	Yes	6	Yes	67	Yes
20	SONAWANE SHRUTI SHARAD	3	Yes	6	Yes	10	Yes	8	Yes	43	Yes
21	KACHI AISHWARYA RAJENDRA	3	Yes	6	Yes	9	Yes	7	Yes	62	Yes
22	DHORE DHANSHREE CHANDRAKANT	4	Yes	5	Yes	8	Yes	6	Yes	49	Yes
23	GHATUL NIKITA SOMNATH	AB	NA	6	Yes	8	Yes	3	Yes	59	Yes
24	WAGHMARE PRIYANKA SHIVPUTRA	3	Yes	5	Yes	9	Yes	7	Yes	57	Yes
25	CHAUDHARI JANHAVI GANESH	4	Yes	6	Yes	10	Yes	9	Yes	67	Yes
26	CHOUHAN SANSKRITI LAKHANLAL	3	Yes	6	Yes	10	Yes	7	Yes	59	Yes
27	PARMAR PALLAVI UTTAM	2	Yes	6	Yes	9	Yes	8	Yes	66	Yes
28	CHANDANE DIKSHITA BALASAHEB	3	Yes	6	Yes	10	Yes	7	Yes	66	Yes
29	KAMBLE ANJALI AJAY	AB	NA	AB	NA	8	Yes	5	Yes	31	Yes
30	CHAVAN PRERANA RAVINDRA	3	Yes	6	Yes	9	Yes	7	Yes	64	Yes
31	KHAN ALIYA	AB	NA	AB	NA	10	Yes	7	Yes	70	Yes

1 Tool No 1 Presentation
Yes= 26 No=00 NA=05
Total No. of Yes/Total No. of Students
26/31
0.83

2 Tool No 2 Assignments
Yes= 29 No=00 NA=02
Total No. of Yes/Total No. of Students
29/31
0.93

3 Tool No 3 Test1
Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of Students

31/31

1

4 Tool No 4 Test2

Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of Students

31/31

1

5 Tool No 5 Final Exam

Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of Students

31/31

1

Internal Average

Assessment=Presentation+Assignment+Test1+Test2

$(0.83+0.93+1+1)/4=3.76/4=0.91$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.91 = ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT

AVERAGE ATTAINMENT VALUE IS 1 = ATTAINMENT LEVEL= 3

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 $(3 \times 3)/3=3$

PO2 $(2.3 \times 3)/3 =2.3$

PO3 $(2.1 \times 3)/3= 2.1$

PO4 (1X3)/3=1

PO5 (2 X 3)/3= 2

Average PO attainment=2.08

PSO Attainment

PSO1scorresponding cell value in table 3 X Overall CO attainment value)/3

PSO1-(3X3)/3=3

PSO2-(3X3)/3=3

PSO3-(2X3)/3=2

Average PSO attainment=2.66

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
SYBBA(CA) Semester III (CBCS) Pattern 2019
Subject: PHP
Course code 304
Credit 3

Teacher Name: Ashwini Mungle

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 401)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO304.1 Students will be able understand PHP basics	Lecture method, practical, Use of ICT	Assignment Test PPT
CO304.2 Learn different PHP Control Structures and Loops	Lecture method, practical, Use of ICT	Assignment Test PPT
CO304.3 To learn Functions, Objects and Errors	Lecture method , practical, Use of ICT	Assignment Test PPT
CO304.4 Understand Working with Forms	Lecture method , practical, Use of ICT	Assignment Test PPT
CO304.5 Learn More with Forms	Lecture method, practical, Use of ICT	Assignment Test PPT
CO304.6 Understand Storing and Protecting Data	Lecture method, practical, Use of ICT	Assignment Test PPT
CO304.7 Learn Read and process data in a MySQL database.	Lecture method, practical, Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-304 SY.BBA(CA) Course	Specific Outcomes: CSO
1	PHP Basics 1.1 Setting up a development environment 1.2 Variables, numbers and strings 1.3 Calculations with PHP 1.4 Using Arrays	1) Give students the basic understanding of how things work in the Web world from the technology point of view as well as to give the basic overview of the different technologies. 2) Giving introduction about Clients- Servers and Communication & Web server and Web browser 3) Introduction to develop dynamic web pages by using server side scripting language PHP.
2	Control Structures and Loops	Understood Control Structures

	2.1 Conditional Statements 2.2 Using Loops for Repetitive tasks 2.3 Combining Loops and Arrays	and Loops
3	Functions, Objects and Errors 3.1 PHP's Built-in functions 3.2 Creating Custom functions 3.3 Passing Values by Reference 3.4 Understanding Objects	Learn different functions & string built in functions and class concept in php.
4	Working with Forms 4.1 Building a Form 4.2 Processing a Form's Data 4.3 Differences between POST and GET 4.4 Preserving User Input	Understood POST and GET in form submission
5	More with Forms 5.1 Dealing with checkboxes and radio buttons 5.2 Retrieving values from lists 5.3 Validating and restricting data 5.4 Sending Email	Learn to retrieve values from form, validation of form and Email handling programming.
6	Storing and Protecting Data 6.1 Setting and Reading Cookies 6.2 Protecting Online Files 6.3 Understanding Session Variables	Learn to receive and process form submission data using cookies and Session.
7	MySQL Database Overview 7.1 phpMyAdmin Overview 7.2 Using a MySQL Database 7.3 Reading and Writing Data	Learn to Read and process data in a MySQL database and explain different advanced database techniques.

Table1

Course Outcome	Course Outcome
CO 304.1	Students will be able understand PHP basics
CO 304.2	Learn different PHP Control Structures and Loops
CO 304.3	To learn Functions, Objects and Errors
CO 304.4	Understand Working with Forms
CO 304.5	Learn More with Forms
CO 304.6	Understand Storing and Protecting Data
CO 304.7	Learn Read and process data in a MySQL database

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 304.1	3	3	2	1	3

CO 304.2	3	3	2	1	3
CO 304.3	3	3	2	1	3
CO 304.4	3	3	2	1	3
CO 304.5	3	3	2	1	3
CO 304.6	3	3	2	1	3
CO 304.7	3	3	2	1	3
CO 304	3	3	2	1	3

Table 3

CO	PSO1	PSO2	PSO3
CO 304.1	3	3	3
CO 304.2	3	3	3
CO 304.3	3	3	3
CO 304.4	3	3	3
CO 304.5	3	3	3
CO 304.6	3	3	3
CO 304.7	3	3	3
CO 304	3	3	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	SURYAVANSHI DIPTI DEEPAK	4	Yes	6	Yes	9	Yes	9	Yes	45	Yes
2	HULAWALE KANCHAN RAM	4	Yes	6	Yes	9	Yes	7	Yes	45	Yes
3	RANAWADE ANKITA ANKUSH	2	Yes	6	Yes	9	Yes	6	Yes	63	Yes
4	AHIR UNNATI VINAYAK	3	Yes	4	Yes	9	Yes	7	Yes	70	Yes
5	BARTAKKE VEDICA RAJENDRA	2	Yes	6	Yes	9	Yes	7	Yes	67	Yes
6	CHAVAN SANIYA MANOHAR	3	Yes	6	Yes	9	Yes	7	Yes	66	Yes
7	KAMBLE PURVA VISHAL	3	Yes	6	Yes	8	Yes	8	Yes	62	Yes
8	RATHOD SNEHA SACHIN	3	Yes	6	Yes	8	Yes	8	Yes	64	Yes
9	KUMBHARE SAKSHI ANAND	4	Yes	6	Yes	8	Yes	8	Yes	52	Yes
10	HAGAWANE TANVI RAMDAS	3	Yes	6	Yes	8	Yes	6	Yes	56	Yes
11	GHONE ISHA SACHIN	2	Yes	AB	NA	9	Yes	7	Yes	57	Yes
12	JINGARE RAVINA SANJAY	2	Yes	6	Yes	9	Yes	7	Yes	70	Yes

13	CHORGHE ISHA SANJAY		2	Yes	6	Yes	9	Yes	7	Yes	70	Yes
14	DAYAL TEJAS RAVINDRA		3	Yes	6	Yes	7	Yes	9	Yes	63	Yes
15	BHOSALE PURVA VASANT		4	Yes	6	Yes	10	Yes	9	Yes	70	Yes
16	GHARAT AKANSHA ANIL		2	Yes	6	Yes	9	Yes	6	Yes	69	Yes
17	KAMBLE SHWETA VISHWANATH		2	Yes	6	Yes	10	Yes	8	Yes	59	Yes
18	DHANGAR NITA NARSING		2	Yes	6	Yes	9	Yes	7	Yes	63	Yes
19	CHAVAN ROHINI BABASAHEB		2	Yes	6	Yes	9	Yes	7	Yes	67	Yes
20	SONAWANE SHRUTI SHARAD		2	Yes	6	Yes	10	Yes	8	Yes	62	Yes
21	KACHI AISHWARYA RAJENDRA		2	Yes	6	Yes	9	Yes	7	Yes	63	Yes
22	DHORE DHANSHREE CHANDRAKANT		2	Yes	6	Yes	9	Yes	8	Yes	55	Yes
23	GHATUL NIKITA SOMNATH		2	Yes	AB	NA	8	Yes	7	Yes	69	Yes
24	WAGHMARE PRIYANKA SHIVPUTRA		3	Yes	AB	NA	10	Yes	8	Yes	67	Yes
25	CHAUDHARI JANHAVI GANESH		4	Yes	6	Yes	9	Yes	9	Yes	70	Yes
26	CHOUHAN SANSKRITI LAKHANLAL		2	Yes	6	Yes	9	Yes	8	Yes	66	Yes
27	PARMAR PALLAVI UTTAM		2	Yes	6	Yes	10	Yes	10	Yes	67	Yes
28	CHANDANE DIKSHITA BALASAHEB		2	Yes	6	Yes	10	Yes	7	Yes	67	Yes
29	SAROLKAR MANSI DHARMENDRA	AB		NA	AB	NA	9	Yes	AB	NA	62	Yes
30	KAMBLE ANJALI AJAY CHAVAN PRERANA	AB		NA	AB	NA	8	Yes	5	Yes	49	Yes
31	CHAVAN PRERANA RAVINDRA		3	Yes	6	Yes	9	Yes	9	Yes	70	Yes
32	KHAN ALIYA	AB		NA	4	Yes	9	Yes	8	Yes	70	Yes

Tool No 1 Presentation

Yes= 28 No=00 NA=03

Total No. of Yes/Total No.
of Students

26/31

0.9

Tool No 2 Assignments

Yes= 26 No=00 NA=05
 Total No. of Yes/Total No.
 of Students
 26/31
 0.84

Tool No 3 Test1

Yes= 31 No=00 NA=00
 Total No. of Yes/Total No.
 of Students
 31/31
 1

Tool No 4 Test2

Yes= 30 No=00 NA=01
 Total No. of Yes/Total No.
 of Students
 30/31
 0.97

Tool No 5 Final Exam

Yes= 31 No=00 NA=00
 Total No. of Yes/Total No.
 of Students
 31/31
 1

Internal Average

Assessment=Presentation+Assignment+Test1+Test2
 $(0.90+0.84+1+0.97)/4=3.71/4=0.92$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVRAGE ATTAIMNMENT VALUE
 IS 0.91 = ATTAIMENT LEVEL= 3

EXTERNAL AVRAGE
 ATTAIMENT

AVRAGE ATTAIMNMENT VALUE
 IS 1 = ATTAIMENT LEVEL= 3

Overall course Attainment= 0.5x1A attainment+ 0.5xUR attainment

Overall course Attainment= 0.5x3+ 0.5x3 Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (3X 3)/3 =3

PO3 (2X 3)/3= 2

PO4 (1X3)/3=1

PO5 (3 X 3)/3= 3

Average PO attainment=2.4

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (3X3)/3=3

PSO3 (3X3)/3=3

Average PSO attainment=3

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
SY BBA(CA) Semester III (CBCS) Pattern 2019
Bigdata
Course code 305
Credit 3

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 305)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able CO305.1 Understand different types of digital data, Characteristics of Bigdata, Applications of big data;	Lecture method, , Use of ICT	Assignment Test PPT
CO305.2 Understand Basics of Analytics, Types of Analytics, Population and Sampling methods;	Lecture method, , Use of ICT	Assignment Test PPT
CO305.3 Learn Basics of Machine Learning, Recognize the characteristics of machine learning that make it useful to real-world problems. Supervised and Unsupervised Learning;	Lecture method , Use of ICT Practical Demonstration,	Assignment Test PPT
CO305.4 Learn Data Analytics with Weka and R, Acquire understanding of Data Manipulation and Data Visualization	Lecture method, Use of ICT Practical Demonstration,	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-305 F.Y.BBA(CA) Course	Specific Outcomes: CSO
1	INTRODUCTION TO BIG DATA 1.1 Introduction to Big Data 1.2 Types of Digital Data 1.3 Big Data Analytics 1.4 Application of Big data	1) To enable students to know about Big data and difference between big data and traditional data. 2) To know about application area of big data.
2	INTRODUCTION TO DATA SCIENCE 2.1 Basics of Data Analytics 2.2 Types of Analytics – 2.2.1 Descriptive, 2.2.2 Predictive, 2.2.3 Prescriptive 2.2.4 Statistical Inference 2.3 Populations and samples 2.3.1 Statistical modelling, 2.3.2 Probability 2.3.3 Distribution 2.3.4 Correlation 2.3.5 Regression	1) Understood data science and skill set required by data scientist. 2) Understood data analytics details and statistical model
3	INTRODUCTION TO MACHINE LEARNING 3.1 Basics of Machine Learning 3.2 Supervised Machine Learning 3.2.1 K- Nearest-Neighbours, 3.2.2 Naïve Bayes 3.2.3 Decision tree 3.2.4 Support	1) Understood basics of machine learning. 2) Understood various algorithms.

	Vector Machines 3.3 Unsupervised Machine Learning 3.3.1 Cluster analysis 3.3.2 K means 3.3.3 EM Algorithm 3.3.4 Association Rule Mining 3.3.5 Apriori algorithms 3.4 Regression Analysis 3.4.1 Linear Regression 3.4.2 Nonlinear Regression	
4	DATA ANALYTICS WITH R/ WEKA MACHINE LEARNING 4.1 Introduction 4.2 Data Manipulation 4.3 Data Visualization 4.4 Data Analysis	1) Understood Data analytics tools. 2) Demonstration of R/WEKA tool.

Table1

Course Outcome	Course Outcome
CO 305.1	Understand different types of digital data, Characteristics of Bigdata, Applications of big data;
CO 305.2	Understand Basics of Analytics, Types of Analytics, Population and Sampling methods;
CO 305.3	Learn Basics of Machine Learning, Recognize the characteristics of machine learning that make it useful to real-world problems. Supervised and Unsupervised Learning;
CO 305.4	Learn Data Analytics with Weka and R, Acquire understanding of Data Manipulation and Data Visualization

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 305.1	3	-	1	-	3
CO 305.2	3	1	3	1	3
CO 305.3	3	3	1	1	3
CO 305.4	3	3	2	-	3
CO 305	3	1.75	1.75	0.5	3

Table 3

CO	PSO1	PSO2	PSO3
CO 305.1	3	1	1
CO 305.2	3	1	1
CO 305.3	3	3	3
CO 305.4	3	3	3
CO 305	3	2	2

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	SURYAVANSHI DIPTI DEEPAK	4	Yes	6	Yes	7	Yes	9	Yes	45	Yes
2	HULAWALE KANCHAN RAM	3	Yes	6	Yes	8	Yes	9	Yes	45	Yes
3	RANAWARE ANKITA ANKUSH	3	Yes	6	Yes	7	Yes	10	Yes	63	Yes
4	AHIR UNNATI VINAYAK	4	Yes	6	Yes	7	Yes	9	Yes	70	Yes
5	BARTAKKE VEDICA RAJENDRA	AB	NA	AB	NA	5	Yes	10	Yes	67	Yes
6	CHAVAN SANIYA MANOHAR	4	Yes	6	Yes	7	Yes	9	Yes	66	Yes
7	KAMBLE PURVA VISHAL	4	Yes	6	Yes	9	Yes	10	Yes	62	Yes
8	RATHOD SNEHA SACHIN	3	Yes	6	Yes	10	Yes	10	Yes	64	Yes
9	KUMBHARE SAKSHI ANAND	4	Yes	6	Yes	7	Yes	10	Yes	52	Yes
10	HAGAWANE TANVI RAMDAS	4	Yes	6	Yes	6	Yes	9	Yes	56	Yes
11	GHONE ISHA SACHIN	AB	NA	5	Yes	7	Yes	9	Yes	57	Yes
12	JINGARE RAVINA SANJAY	3	Yes	6	Yes	9	Yes	9	Yes	70	Yes
13	CHORGHE ISHA SANJAY	4	Yes	6	Yes	8	Yes	AB	Yes	70	Yes
14	DAYAL TEJAS RAVINDRA	3	Yes	6	Yes	8	Yes	9	Yes	63	Yes
15	BHOSALE PURVA VASANT	3	Yes	6	Yes	10	Yes	9	Yes	70	Yes
16	GHARAT AKANSHA ANIL	3	Yes	6	Yes	9	Yes	10	Yes	63	Yes
17	KAMBLE SHWETA VISHWANATH	3	Yes	6	Yes	7	Yes	9	Yes	59	Yes
18	DHANGAR NITA NARSING	3	Yes	6	Yes	7	Yes	9	Yes	63	Yes
19	CHAVAN ROHINI BABASAHEB	3	Yes	6	Yes	8	Yes	9	Yes	67	Yes
20	SONAWANE SHRUTI SHARAD	3	Yes	6	Yes	10	Yes	10	Yes	62	Yes

21	KACHI AISHWARYA RAJENDRA	3	Yes	6	Yes	9	Yes	10	Yes	63	Yes
22	DHORE DHANSHREE CHANDRAKANT	3	Yes	5	Yes	6	Yes	10	Yes	55	Yes
23	GHATUL NIKITA SOMNATH	AB	NA	6	Yes	7	Yes	9	Yes	69	Yes
24	WAGHMARE PRIYANKA SHIVPUTRA	3	Yes	5	Yes	9	Yes	10	Yes	67	Yes
25	CHAUDHARI JANHAVI GANESH	4	Yes	6	Yes	9	Yes	10	Yes	70	Yes
26	CHOUHAN SANSKRITI LAKHANLAL	4	Yes	6	Yes	9	Yes	8	Yes	66	Yes
27	PARMAR PALLAVI UTTAM	2	Yes	6	Yes	8	Yes	10	Yes	67	Yes
28	CHANDANE DIKSHITA BALASAHEB	2	Yes	6	NA	9	Yes	10	Yes	67	Yes
29	KAMBLE ANJALI AJAY	AB	NA	AB	NA	7	Yes	9	Yes	49	Yes
30	CHAVAN PRERANA RAVINDRA	3	Yes	6	Yes	9	Yes	10	Yes	70	Yes
31	KHAN ALIYA	AB	Yes	5	Yes	9	Yes	9	Yes	70	Yes

1 Tool No 1 Presentation

Yes= 26 No=00 NA=05

Total No. of Yes/Total No. of Students

26/31

0.83

2 Tool No 2 Assignments

Yes= 29 No=00 NA=02

Total No. of Yes/Total No. of Students

29/31

0.93

3 Tool No 3 Test1

Yes=31 No=00 NA=00

Total No. of Yes/Total No. of Students

31/31

1

4 Tool No 4 Test2

Yes= 30 No=00 NA=01

Total No. of Yes/Total No. of Students

30/31

0.96

5 Tool No 5 Final Exam

Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of Students

31/31

1

Internal Average Assessment=Presentation+Assignment+Test1+Test2

$(0.83+0.93+1+0.96)/4=3.72/4=0.93$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.93= ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT
AVERAGE ATTAINMENT VALUE IS 1 = ATTAINMENT LEVEL= 3

Overall course Attainment= $0.5 \times \text{IA attainment} + 0.5 \times \text{UR attainment}$

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 $(3 \times 3)/3=3$

PO2 $(1.75 \times 3)/3=1.75$

PO3 $(1.75 \times 3)/3=1.75$

PO4 $(0.5 \times 3)/3=0.5$

PO5 $(3 \times 3)/3=3$

Average PO attainment=2.6

PSO Attainment

PSO1 corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1-(3X3)/3=3

PSO2-(2X3)/3=2

PSO3-(3X3)/3=3

Average PSO attainment=2.6

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
SYBBA(CA) Semester IV (CBCS) Pattern 2019
Networking
Course code 401
Credit 3

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 401)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able CO401.1 Understand Basics of computer network;	Lecture method, Use of ICT	Assignment Test PPT
CO401.2 Learn different network model	Lecture method Use of ICT	Assignment Test PPT
CO401.3 To learn Transmission media	Lecture method , Use of ICT	Assignment Test PPT
CO401.4 Understand Wire and Wireless LAN	Lecture method , Use of ICT	Assignment Test PPT
CO401.5 Learn different network devices	Lecture method Use of ICT	Assignment Test PPT
CO401.6 Understand Required security constraint	Lecture method Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-401 SY.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to Computer Network 1.1Basics of Computer Network 1.1.1Definition 1.1.2Goals 1.1.3Applications, 1.1.4Network Hardware –Broadcast, Point to Point 1.1.5Components of Data Communication 1.2 Network Topologies 1.2.1Mesh 1.2.2 Star, 1.2.3 Bus, 1.2.4Ring 1.3Types of Networks 1.3.1LAN,MAN,WAN, 1.3.2 Internetwork, 1.3.3 Wireless Network 1.4 Modes of Communication 1.4.1 Simplex, 1.4.2 Half Duplex, 1.4.3 Full Duplex 1.5. Server Based LANs & Peer-to-Peer LANs 1.6. Protocols and Standards 1.7. Network Software 1.7.1 Protocol Hierarchies,Layers, Peers,Interfaces 1.7.2 Design Issues of the Layers 1.7.3 Connection Oriented and Connectionless Service	Get the knowledge of the basic concept of Computer network. Understand the concept of Network topologies, modes of communication and Network software.
2	Network Models 2.1OSI Reference Model : Functions of each Layer 2.2 TCP/IP Reference Model, Comparison of OSI and TCP/IP Reference Model 2.3 TCP/IP Protocol Suite 2.4 Addressing 2.4.1Physical	Students will understand OSI and TCP/IP reference model, Protocol suite and Addressing, IP addressing.

	Addresses 2.4.2 Logical Addresses 2.4.3Port Addresses, 2.4.4 Specific Addresses 2.5 IP Addressing 2.5.1 Classfull Addressing 2.5.2 Classless Addressing	
3	<p>Transmission Media</p> <p>3.1Introduction, Types of Transmission Media</p> <p>3.2 Guided Media: 3.2.1Twisted Pair Cable-Physical Structure, Categories, Connectors &Applications 3.2.2Coaxial Cable – Physical Structure, Standards, Connectors & Applications 3.2.3Fiber Optic Cable- Physical Structure, Propagation Modes, Connectors & Applications</p> <p>3.3 Unguided Media: 3.3.1Electromagnetic Spectrum for Wireless Communication 3.3.2Propagation Modes Ground, Sky, Line-of-Sight 3.3.3Wireless Transmission: Radio Waves, Microwaves, Infrared</p>	Students understand transmission media that is guided and unguided.
4	<p>Wired and Wireless LAN</p> <p>4.1 IEEE Standards 4.2 Standard Ethernet MAC Sublayer, Physical Layer 4.3 Fast Ethernet – Goals, MAC Sublayer, Topology, Implementation 4.4 Gigabit Ethernet – Goals, MAC Sublayer, Topology, Implementation 4.5 Ten-Gigabit Ethernet – Goals, MAC Sublayer, Physical Layer 4.6 Backbone Networks -Bus Backbone, Star Backbone 4.7 Virtual LANs Membership, IEEE standards advantages 4.8 Wireless LAN 4.8.1 IEEE 802.11 Architecture, 4.8.2 Bluetooth Architecture (Piconet, Scatternet)</p>	Know the concepts of Wired and Wireless LAN, IEEE 802.11 Architecture.
5	<p>Network Devices</p> <p>5.1 Network Connectivity Devices 5.1.1 Active and Passive Hubs 5.1.2 Repeaters 5.1.3 Bridges-Types of Bridges 5.1.4 Switches 5.1.5 Router 5.1.6 Gateways</p>	Students understand the different Network Connectivity Devices.
6	<p>Network Security</p> <p>6.1 Introduction 6.2 Need for Security 6.3 Security Services : 6.3.1 Message- - Confidentiality, Integrity, Authentication, Non repudiation. 6.3.2 Entity (User)- Authentication. 6.4 Types of Attack 6.5 Cryptography, Plain Text, Cipher Text, Encryption, Decryption, Symmetric Key and Asymmetric Key Cryptography 6.6 Substitution Techniques, Caesar Cipher ,and Transposition Cipher (Problems should be covered.) 6.7 Firewalls- Packet Filter firewall, Proxy firewall 6.8 Steganography, Copyright</p>	Students understand the basic network security, Cryptography, Steganography, Copyright and Firewalls.

Table1

Course Outcome	Course Outcome
CO 401.1	Understand Basics of computer network;
CO 401.2	Learn different network model
CO 401.3	To learn Transmission media
CO 401.4	Understand Wire and Wireless LAN
CO 401.5	Learn different network devices
CO 401.6	Understand Required security constraint

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 204.1	3	-	3	2	3
CO 204.2	3	-	3	2	3
CO 204.3	3	-	3	2	3
CO 204.4	3	-	3	2	3
CO 204.5	3	-	3	2	3
CO 204.6	3	-	3	2	3
CO 204	3	-	3	2	3

Table 3

CO	PSO1	PSO2	PSO3
CO 204.1	3	-	3
CO 204.2	3	-	3
CO 204.3	3	-	3
CO 204.4	3	1	3
CO 204.5	3	1	3
CO 204.6	3	1	3
CO 204	3	0.5	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
		4		6		10		10		70	
1	SURYAVANSHI DIPTI DEEPAK	4	Yes	6	Yes	8	Yes	8	Yes	48	Yes
2	HULAWALE KANCHAN RAM	4	Yes	6	Yes	6	Yes	8	Yes	46	Yes
3	RANAWARE ANKITA ANKUSH	4	Yes	6	Yes	5	Yes	5	Yes	38	Yes
4	AHIR UNNATI VINAYAK	4	Yes	6	Yes	7	Yes	7	Yes	49	Yes
5	BARTAKKE VEDICA RAJENDRA	4	Yes	6	Yes	4	Yes	5	Yes	28	Yes
6	CHAVAN SANIYA MANOHAR	4	Yes	6	Yes	6	Yes	6	Yes	55	Yes
7	KAMBLE PURVA VISHAL	4	Yes	6	Yes	4	Yes	5	Yes	37	Yes
8	RATHOD SNEHA SACHIN	4	Yes	6	Yes	5	Yes	7	Yes	42	Yes
9	KUMBHARE SAKSHI ANAND	4	Yes	6	Yes	6	Yes	7	Yes	57	Yes
10	HAGAWANE TANVI RAMDAS	4	Yes	6	Yes	4	Yes	4	Yes	34	Yes
11	GHONE ISHA SACHIN	4	Yes	6	Yes	3	No	4	Yes	17	No
12	JINGARE RAVINA SANJAY	4	Yes	6	Yes	4	Yes	5	Yes	44	Yes
13	CHORGHE ISHA SANJAY	4	Yes	6	Yes	5	Yes	4	Yes	34	Yes
14	DAYAL TEJAS RAVINDRA	4	Yes	6	Yes	5	Yes	AB	Yes	34	Yes
15	BHOSALE PURVA VASANT	4	Yes	6	Yes	5	Yes	8	Yes	51	Yes
16	GHARAT AKANSHA ANIL	4	Yes	6	Yes	3	No	3	Yes	11	No
17	KAMBLE SHWETA VISHWANATH	4	Yes	6	Yes	5	Yes	7	Yes	37	Yes
18	DHANGAR NITA NARSING	4	Yes	6	Yes	4	Yes	5	Yes	37	Yes
19	CHAVAN ROHINI BABASAHEB	4	Yes	6	Yes	5	Yes	4	Yes	24	Yes
20	SONAWANE SHRUTI SHARAD	4	Yes	6	Yes	4	Yes	5	Yes	36	Yes
21	KACHI AISHWARYA RAJENDRA	4	Yes	6	Yes	4	Yes	3	No	19	No
22	DHORE DHANSHREE CHANDRAKANT	4	Yes	6	Yes	5	Yes	3	No	28	Yes

23	GHATUL NIKITA SOMNATH	4	Yes	6	Yes	3	No	3	No	28	Yes
24	WAGHMARE PRIYANKA SHIVPUTRA	4	Yes	6	Yes	5	Yes	3	No	38	Yes
25	CHAUDHARI JANHAVI GANESH	4	Yes	6	Yes	7	Yes	7	Yes	56	Yes
26	CHOUHAN SANSKRITI LAKHANLAL	4	Yes	6	Yes	7	Yes	7	Yes	38	Yes
27	PARMAR PALLAVI UTTAM	4	Yes	6	Yes	6	Yes	7	Yes	43	Yes
28	CHANDANE DIKSHITA BALASAHEB	4	Yes	6	Yes	6	Yes	7	Yes	40	Yes
29	KAMBLE ANJALI AJAY	4	Yes	6	Yes	2	No	2	No	16	No
30	CHAVAN PRERANA RAVINDRA	4	Yes	6	Yes	4	Yes	4	Yes	38	Yes
31	KHAN ALIYA	4	Yes	6	Yes	6	Yes	5	Yes	37	Yes

1 Tool No 1 Presentation

Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of Students

31/31

1

2 Tool No 2 Assignments

Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of Students

31/31

1

3 Tool No 3 Test1

Yes=27 No=04 NA=00

Total No. of Yes/Total No. of Students

27/31

0.87

4 Tool No 4 Test2

Yes= 25 No=5 NA=01

Total No. of Yes/Total No. of Students

25/31

0.806

5 Tool No 5 Final Exam

Yes= 27 No=04 NA=00

Total No. of Yes/Total No. of Students

27/31

0.87

Internal Average Assessment=Presentation+Assignment+Test1+Test2
 $(1+1+0.87+0.80)/4=3.67/4=0.91$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.91 =
 ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT
 AVERAGE ATTAINMENT VALUE IS 0.87 =
 ATTAINMENT LEVEL= 3

Overall course Attainment= 0.5xIA attainment+ 0.5xUR attainment

Overall course Attainment= 0.5x3+ 0.5x3 Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (0X 3)/3 =0

PO3 (3 X 3)/3= 2

PO4 (2X3)/3=2

PO5 (3 X 3)/3= 3

Average PO attainment=1.66

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (0.5X3)/3=0.5

PSO3 (3X3)/3=3

Average PSO attainment=2.16

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
SYBBA(CA) Semester IV (CBCS) Pattern 2019
Object Oriented Programming Through C++
Course code 402
Credit 3

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 402)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able CO402.1 Describe the object-oriented programming approach in C++ & Apply the concepts of object-oriented programming;	Lecture method Use of ICT Practical	Assignment Test PPT
CO402.2 Understand programming fundamentals,	Lecture method Use of ICT Practical	Assignment Test PPT
CO402.3 Apply the concepts of class, method, data abstraction, function and test basic C++ codes	Lecture method Use of ICT Practical	Assignment Test PPT
CO402.4 Apply the concepts of class, method, instance, constructor and Destructor & Analyze, write, debug, and test C++ programs using constructor and destructor;	Lecture method Use of ICT Practical	Assignment Test PPT
CO402.5 Understand the concept of inheritance	Lecture method Use of ICT Practical	Assignment Test PPT
CO402.6 Apply the concepts of class, method, polymorphism, overloading, overriding and its concepts	Lecture method Use of ICT Practical	Assignment Test PPT
CO402.7 Illustrate the process of data file manipulations using C++;	Lecture method Use of ICT Practical	Assignment Test PPT
CO402.8 Managing input & output console using C++	Lecture method Use of ICT Practical	Assignment Test PPT
CO402.9 Handling templates and exception handling	Lecture method Use of ICT Practical	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-402 SY.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to C++ 1.1 Basic concepts, features, advantages and applications of OOP 1.2 Introduction, applications and features of C++ 1.3 Input and Output operator in C++ 1.4 Simple C++ program	Students will understand the features of C++ supporting object-oriented programming, concept and application of OOP.
2	Beginning with C++ 2.1 Data type and Keywords 2.2 Declaration of variables, dynamic initialization of variables, reference variable 2.3 Operators: 2.3.1 Scope resolution operator 2.3.2 Memory management operators 2.4 Manipulators 2.5 Functions: 2.5.1 Function prototyping, call by reference and return by reference 2.5.2 Inline functions 2.6 Default argument	<ul style="list-style-type: none"> • Understanding the basic concepts, Implementation and build models in C++. • Understanding the implementation of user define function.
3	Classes and Objects 3.1 Structure and class, Class, Object 3.2 Access specifiers, defining data member 3.3 Defining member functions inside and outside class definition. 3.4 Simple C++ program using class 3.5 Memory allocation for objects 3.6 Static data members and static member functions 3.7 Array of objects, objects as a function argument 3.8 Friend function and Friend class 3.9 Function returning objects	<ul style="list-style-type: none"> • Understanding concept of classes and objects. • Understand to build/ produce object oriented software using C++ through classes and object.
4	Constructors and Destructors 4.1 Constructors 4.2 Types of constructor : Default, Parameterized, Copy 4.3 Multiple constructors in a class 4.4 Constructors with default argument 4.5 Dynamic initialization of constructor 4.6 Dynamic constructor 4.7 Destructor	<ul style="list-style-type: none"> • To know about constructor and destructor. • Understand to develop application using constructor
5	Inheritance 6.1 Introduction 6.2 Defining Base class and Derived class 6.3 Types of Inheritance 6.4 Virtual Base Class 6.5 Abstract class 6.6 Constructors in derived class	<ul style="list-style-type: none"> • Understand how to apply inheritance to implement programs in C++. • To know different types of inheritance.
6	Polymorphism 7.1 Compile Time Polymorphism 7.1.1 Introduction, rules for overloading operators 7.1.2 Function overloading 7.1.3 Operator Overloading unary and binary 7.1.4 Operator Overloading using friend function 7.1.5 Overloading insertion and extraction operators 7.1.6 String manipulation using operator overloading 7.2 Runtime Polymorphism 7.2.1 this Pointer, pointers to	<ul style="list-style-type: none"> • Understand how to apply polymorphism to implement programs in C++. • To know different types of polymorphism.

	objects, pointer to derived classes 7.2.2 Virtual functions and pure virtual functions	
7	Managing console I/O operations 8.1 C++ streams and C++ stream classes 8.2 Unformatted I/O operations 8.3 Formatted console I/O operations 8.4 Output formatting using manipulators 8.5 User defined manipulators	<ul style="list-style-type: none"> • Understand advanced features of C++ specifically stream I/O and templates.
8	Working with Files 9.1 Stream Classes for File operations 9.2 File operations - Opening, Closing and updating 9.3 File updating with random access. 9.4 Error handling during File operations 9.5 Command Line arguments	<ul style="list-style-type: none"> • Understand how to handle files. • To know how to perform various operations on file.
9	Templates 10.1 Introduction 10.2 Class Template and class template with multiple parameters 10.3 Function Template and function template with multiple parameter 10.4 Exception Handling Introduction	<ul style="list-style-type: none"> • Understand advanced features of C++ template. • To know how to create template.

Table1

Course Outcome	Course Outcome
CO 402.1	Describe the object-oriented programming approach in C++ & Apply the concepts of object-oriented programming;
CO 402.2	Understand programming fundamentals,
CO 402.3	Apply the concepts of class, method, data abstraction, function and test basic C++ codes
CO 402.4	Apply the concepts of class, method, instance, constructor and Destructor & Analyze, write, debug, and test C++ programs using constructor and destructor;
CO 402.5	Understand the concept of inheritance
CO 402.6	Apply the concepts of class, method, polymorphism, overloading, overriding and its concepts
CO 402.7	Illustrate the process of data file manipulations using C++;
CO 402.8	Managing input & output console using C++
CO 402.9	Handling templates and exception handling

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 402.1	3	3	2	-	3
CO 402.2	3	3	2	-	3
CO 402.3	3	3	2	-	3
CO 402.4	3	3	2	-	3
CO 402.5	3	3	2	-	3
CO 402.6	3	3	2	-	3
CO 402.7	3	3	2	-	3
CO 402.8	3	3	2	-	3
CO 402.9	3	3	2	-	3
CO 402	3	3	2	-	3

Table 3

CO	PSO1	PSO2	PSO3
CO 402.1	3	3	3
CO 402.2	3	3	3
CO 402.3	3	3	3
CO 402.4	3	3	3
CO 402.5	3	3	3
CO 402.6	3	3	3
CO 402.7	3	3	3
CO 402.8	3	3	3
CO 402.9	3	3	3
CO 402	3	3	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
		4		6		10		10		70	
1	SURYAVANSHI DIPTI DEEPAK	4	Yes	6	Yes	7	Yes	8	Yes	50	Yes
2	HULAWALE KANCHAN RAM	4	Yes	6	Yes	6	Yes	8	Yes	37	Yes
3	RANA WADE ANKITA ANKUSH	4	Yes	6	Yes	2	No	4	Yes	8	No
4	AHIR UNNATI VINAYAK	4	Yes	6	Yes	5	Yes	5	Yes	34	Yes
5	BARTAKKE VEDICA	4	Yes	6	Yes	3	No	4	Yes	9	No

	RAJENDRA										
6	CHAVAN SANIYA MANOHAR	4	Yes	6	Yes	9	Yes	8	Yes	41	Yes
7	KAMBLE PURVA VISHAL	4	Yes	6	Yes	5	Yes	6	Yes	28	Yes
8	RATHOD SNEHA SACHIN	4	Yes	6	Yes	9	Yes	9	Yes	46	Yes
9	KUMBHARE SAKSHI ANAND	4	Yes	6	Yes	7	Yes	8	Yes	54	Yes
10	HAGAWANE TANVI RAMDAS	4	Yes	6	Yes	4	Yes	5	Yes	16	No
11	GHONE ISHA SACHIN	4	Yes	6	Yes	3	No	3	No	4	No
12	JINGARE RAVINA SANJAY	4	Yes	6	Yes	7	Yes	6	Yes	34	Yes
13	CHORGHE ISHA SANJAY	4	Yes	6	Yes	5	Yes	5	Yes	22	Yes
14	DAYAL TEJAS RAVINDRA	4	Yes	6	Yes	7	Yes	AB	Yes	19	Yes
15	BHOSALE PURVA VASANT	4	Yes	6	Yes	9	Yes	6	Yes	41	Yes
16	GHARAT AKANSHA ANIL	4	Yes	6	Yes	3	No	2	No	3	No
17	KAMBLE SHWETA VISHWANATH	4	Yes	6	Yes	4	Yes	7	Yes	19	No
18	DHANGAR NITA NARSING	4	Yes	6	Yes	7	Yes	4	Yes	19	No
19	CHAVAN ROHINI BABASAHEB	4	Yes	6	Yes	4	Yes	4	Yes	28	Yes
20	SONAWANE SHRUTI SHARAD	4	Yes	6	Yes	4	Yes	5	Yes	37	Yes
21	KACHI AISHWARYA RAJENDRA	4	Yes	6	Yes	3	No	3	No	13	No
22	DHORE DHANSHREE CHANDRAKANT	4	Yes	6	Yes	1	No	3	No	11	No
23	GHATUL NIKITA SOMNATH	4	Yes	6	Yes	3	No	3	No	19	No
24	WAGHMARE PRIYANKA SHIVPUTRA	4	Yes	6	Yes	3	No	3	No	18	No
25	CHAUDHARI JANHAVI GANESH	4	Yes	6	Yes	9	Yes	5	Yes	38	Yes
26	CHOUHAN SANSKRITI LAKHANLAL	4	Yes	6	Yes	3	No	6	Yes	10	No
27	PARMAR PALLAVI UTTAM	4	Yes	6	Yes	4	Yes	6	Yes	29	Yes
28	CHANDANE DIKSHITA BALASAHEB	4	Yes	6	Yes	7	Yes	5	Yes	19	No
29	KAMBLE ANJALI AJAY	4	Yes	6	Yes	1	No	1	No	8	No
30	CHAVAN PRERANA	4	Yes	6	Yes	3	No	4	Yes	29	Yes

	RAVINDRA										
31	KHAN ALIYA	4	Yes	6	Yes	5	Yes	4	Yes	28	Yes

1 Tool No 1 Presentation

Yes= 31 No=00 NA=00
 Total No. of Yes/Total No. of Students
 31/31
 1

2 Tool No 2 Assignments

Yes= 31 No=00 NA=00
 Total No. of Yes/Total No. of Students
 31/31
 1

3 Tool No 3 Test1

Yes=20 No=11 NA=00
 Total No. of Yes/Total No. of Students
 20/31
 0.64

4 Tool No 4 Test2

Yes= 23 No=7 NA=01
 Total No. of Yes/Total No. of Students
 23/31
 0.74

5 Tool No 5 Final Exam

Yes=17 No=14 NA=00
 Total No. of Yes/Total No. of Students
 17/31
 0.54

Internal Average Assessment=Presentation+Assignment+Test1+Test2
 $(1+1+0.64+0.74)/4=3.38/4=0.84$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.84 =
 ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE
ATTAINMENT
AVERAGE ATTAINMENT VALUE IS 0.54 =
ATTAINMENT LEVEL= 2

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (3X 3)/3 =3

PO3 (3 X 3)/3= 2

PO4 (0X3)/3=0

PO5 (3 X 3)/3= 3

Average PO attainment=2.2

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (3X3)/3=3

PSO3 (3X3)/3=3

Average PSO attainment=3

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
SYBBA(CA) Semester IV (CBCS) Pattern 2019
Subject: Operating System
Course code 403
Credit 3

Teacher Name: Ashwini Mungle

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 403)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO403.1 Students will be able Understand services provided by the operating system	Lecture method, Use of ICT	Assignment Test PPT
CO403.2 Learn concept System Structure	Lecture method Use of ICT	Assignment Test PPT
CO403.3 Learn procees scheduling concept process and scheduling.	Lecture method , Use of ICT	Assignment Test PPT
CO403.4 Learn Scheduling Concepts , CPU- I/O Burst Cycle,CPU Scheduler	Lecture method , Use of ICT	Assignment Test PPT
CO403.5 Learn concept of deadlock, various deadlock avoidance and prevention.	Lecture method Use of ICT	Assignment Test PPT
CO403.6 Learn Process Synchronization	Lecture method Use of ICT	Assignment Test PPT
CO403.7 Understand Memory Management	Lecture method Use of ICT	Assignment Test PPT
CO403.8 Learn File concepts file attributes Operations on files	Lecture method Use of ICT	Assignment Test PPT
CO403.9 Understand I/O System , Disk Scheduling	Lecture method Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-403 SY.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to Operating System 1.1 What is operating system 1.2 Computer system architecture 1.3 Services provided by OS 1.4 Types of OS 1.5 Operating System Structure – - Simple structure -Layered approach -Micro kernels -Modules 1.6 Virtual Machines – Introduction, Benefits	Get the knowledge of the basic concept of Computer network. Understand the concept of Network topologies, modes of communication and Network software.

<p>2</p>	<p>System Structure 2.1 User operating system Interface 2.2 System Calls– -Process or job control -Device Management - File Management 2.3 System Program 2.4 Operating System Structure</p>	<p>Students will understand OSI and TCP/IP reference model, Protocol suite and Addressing, IP addressing.</p>
<p>3</p>	<p>Process Management 3.1 Process Concept – - The process - Process states - Process control block 3.2 Process Scheduling – - Scheduling queues - Schedulers -Context Switch 3.3 Operation on Process – - Process Creation -Process Termination 3.4 Interprocess Communication – - Shared memory system - Message passing systems.</p>	<p>Students understand transmission media that is guided and unguided.</p>
<p>4</p>	<p>CPU Scheduling 4.1 What is scheduling 4.2 Scheduling Concepts – - CPU- I/O Burst Cycle - CPU Scheduler -Preemptive and Non-preemptive scheduling - Dispatcher 4.3 Scheduling criteria 4.4 Scheduling Algorithms – - FCFS - SJF (Preemptive& non-preemptive) - Priority Scheduling (Preemptive& Non-preemptive) - Round Robin Scheduling - Multilevel Queues - Multilevel Feedback queues</p>	<p>Know the concepts of Wired and Wireless LAN, IEEE 802.11 Architecture.</p>
<p>5</p>	<p>Process Synchronization 5.1 Introduction 5.2 Critical section problem 5.3 Semaphores – - Concept - Implementation - Deadlock & Starvation - Types of Semaphores 5.4 Classical Problems of synchronization – -Bounded buffer problem - Readers & writers problem</p>	<p>Students understand the different Network Connectivity Devices.</p>

	- Dining Philosophers problem	
6	Deadlock 6.1 Introduction 6.2 Deadlock Characterization 6.3 Necessary Condition 6.4 Deadlock Handling Technique– -Deadlock Prevention - Deadlock Avoidance – - Safe State - Resource allocation graph algorithm - Bankers algorithm - Deadlock Detection - Recovery from Deadlock – -Process Termination -Resource Preemption	Students understand the basic network security, Cryptography, Steganography, Copyright and Firewalls.
7	Memory Management 7.1. Background – -Basic hardware - Address binding - Logical versus physical address space - Dynamic loading - Dynamic linking and shared libraries 7.2 Swapping 7.3 Contiguous Memory Allocation - Memory mapping and protection -Memory allocation - Fragmentation 7.4 Paging - Basic Method - Hardware support - Protection - Shared Pages 7.5 Segmentation - Basic concept - Hardware 7.6 Virtual Memory Management - Background - Demand paging - Performance of demand paging - Page replacement - FIFO - OPT - LRU - Second chance page replacement	Calculate efficiency of different memory management.
8	File System 8.1 Introduction & File concepts (file attributes, Operations on files) 8.2 Access methods – - Sequential access - Direct access 8.3 File structure –	To define, restate, discuss, and explain the policies for file systems

	- Allocation methods - Contiguous allocation - Linked Allocation - Indexed Allocation 8.4 Free Space Management - Bit Vector - Linked List - Grouping - Counting	
9	I/O System 9.1 Introduction 9.2 I/O Hardware 9.3 Application of I/O Interface 9.4 Kernel I/O Subsystem 9.5 Disk Scheduling – - FCFS - Shortest Seek time first - SCAN - C- SCAN - C- Look	To define, restate, discuss, and explain the policies for I/O systems

Table1

Course Outcome	Course Outcome
CO 403.1	Students will be able Understand services provided by the operating system
CO 403.2	Learn concept System Structure
CO 403.3	Learn process scheduling concept process and scheduling.
CO 403.4	Learn Scheduling Concepts , CPU- I/O Burst Cycle, CPU Scheduler
CO 403.5	Learn concept of deadlock, various deadlock avoidance and prevention.
CO 403.6	Learn Process Synchronization
CO 403.7	Understand Memory Management
CO 403.8	Learn File concepts file attributes Operations on files
CO 403.9	Understand I/O System , Disk Scheduling

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 403.1	3	-	2	1	3

CO 403.2	3	-	2	1	3
CO 403.3	3	-	2	1	3
CO 403.4	3	-	2	1	3
CO 403.5	3	-	2	1	3
CO 403.6	3	-	2	1	3
CO 403.7	3	-	2	1	3
CO 403.8	3	-	2	1	3
CO 403.9	3	-	2	1	3
CO 403	3	-	2	1	3

Table 3

CO	PSO1	PSO2	PSO3
CO 403.1	3	1	3
CO 403.2	3	1	3
CO 403.3	3	1	3
CO 403.4	3	1	3
CO 403.5	3	1	3
CO 403.6	3	1	3
CO 403.7	3	1	3
CO 403.8	3	1	3
CO 403.9	3	1	3
CO 403	3	1	3

sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	SURYAVANSHI DIPTI DEEPAK	6	Yes	4	Yes	7	Yes	6	Yes	66	Yes
2	HULAWALE KANCHAN RAM	6	Yes	4	Yes	7	Yes	6	Yes	46	Yes
3	RANAWADE ANKITA ANKUSH	6	Yes	4	Yes	8	Yes	7	Yes	28	Yes
4	AHIR UNNATI VINAYAK	6	Yes	4	Yes	9	Yes	6	Yes	38	Yes
5	BARTAKKE VEDICA RAJENDRA	6	Yes	4	Yes	7	Yes	5	Yes	6	No
6	CHAVAN SANIYA MANOHAR	6	Yes	4	Yes	7	Yes	6	Yes	63	Yes
7	KAMBLE PURVA VISHAL	6	Yes	4	Yes	9	Yes	5	Yes	20	No
8	RATHOD SNEHA SACHIN	6	Yes	4	Yes	6	Yes	6	Yes	40	Yes

9	KUMBHARE SAKSHI ANAND	6	Yes	4	Yes	9	Yes	8	Yes	69	Yes
10	HAGAWANE TANVI RAMDAS	6	Yes	4	Yes	6	Yes	5	Yes	3	No
11	GHONE ISHA SACHIN	6	Yes	4	Yes	6	Yes	4	Yes	7	No
12	JINGARE RAVINA SANJAY	6	Yes	4	Yes	8	Yes	6	Yes	37	Yes
13	CHORGHE ISHA SANJAY	6	Yes	4	Yes	6	Yes	6	Yes	17	No
14	DAYAL TEJAS RAVINDRA	6	Yes	4	Yes	9	Yes	AB	NA	10	No
15	BHOSALE PURVA VASANT	6	Yes	4	Yes	9	Yes	7	Yes	65	Yes
16	GHARAT AKANSHA ANIL	6	Yes	4	Yes	7	Yes	3	Yes	6	No
17	KAMBLE SHWETA VISHWANATH	6	Yes	4	Yes	8	Yes	6	Yes	29	Yes
18	DHANGAR NITA NARSING	6	Yes	4	Yes	8	Yes	4	Yes	37	Yes
19	CHAVAN ROHINI BABASAHEB	6	Yes	4	Yes	8	Yes	6	Yes	3	No
20	SONAWANE SHRUTI SHARAD	6	Yes	4	Yes	8	Yes	6	Yes	46	Yes
21	KACHI AISHWARYA RAJENDRA	6	Yes	4	Yes	8	Yes	4	Yes	13	No
22	DHORE DHANSHREE CHANDRAKANT	6	Yes	4	Yes	7	Yes	3	Yes	17	No
23	GHATUL NIKITA SOMNATH	6	Yes	4	Yes	7	Yes	6	Yes	28	Yes
24	WAGHMARE PRIYANKA SHIVPUTRA	6	Yes	4	Yes	9	Yes	5	Yes	28	Yes
25	CHAUDHARI JANHAVI GANESH	6	Yes	4	Yes	9	Yes	7	Yes	67	Yes
26	CHOUHAN SANSKRITI LAKHANLAL	6	Yes	4	Yes	9	Yes	8	Yes	19	No
27	PARMAR PALLAVI UTTAM	6	Yes	4	Yes	9	Yes	6	Yes	33	Yes
28	CHANDANE DIKSHITA BALASAHEB	6	Yes	4	Yes	7	Yes	7	Yes	32	Yes
29	KAMBLE ANJALI AJAY	6	Yes	4	Yes	5	Yes	3	Yes	4	No
30	CHAVAN PRERANA RAVINDRA	6	Yes	4	Yes	9	Yes	6	Yes	42	Yes
31	KHAN ALIYA	6	Yes	4	Yes	8	Yes	5	Yes	46	Yes

Tool No 1 Presentation

Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of

Students

31/31

1

Tool No 2 Assignments

Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of
Students

31/31

1

Tool No 3 Test1

Yes= 31 No=00 NA=00

Total No. of Yes/Total No. of
Students

31/31

1

Tool No 4 Test2

Yes= 30 No=00 NA=01

Total No. of Yes/Total No. of
Students

30/31

0.96

Tool No 5 Final Exam

Yes= 19 No=12 NA=00

Total No. of Yes/Total No. of
Students

19/31

0.61

Internal Average

Assessment=Presentation+Assignme
nt+Test1+Test2

$(1+1+0.96+1)/4=3.96/4=0.99$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVRAGE ATTAINMENT VALUE IS 0.99 = ATTAINMENT LEVEL= 3

EXTERNAL AVRAGE ATTAIMENT

AVRAGE ATTAIMNMENT VALUE IS 0.61 = ATTAINMENT LEVEL= 3

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (0X 3)/3 =0

PO3 (3 X 3)/3= 2

PO4 (1X3)/3=1

PO5 (3 X 3)/3= 3

Average PO attainment=1.8

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (1X3)/3=1

PSO3 (3X3)/3=3

Average PSO attainment=2.33

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
SYBBA(CA) Semester IV (CBCS) Pattern 2019
Subject: Advance PHP
Course code 404
Credit 3

Teacher Name: Ashwini Mungle

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 404)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO404.1 Students will be able	Lecture method,	Assignment

Understand Basics of Object Oriented Programming in PHP	practical Use of ICT	Test PPT
CO404.2 Learn different Web Techniques	Lecture method, practical Use of ICT	Assignment Test PPT
CO404.3 To learn XML	Lecture method , practical, Use of ICT	Assignment Test PPT
CO404.4 Understand Ajax with PHP	Lecture method , practical, Use of ICT	Assignment Test PPT
CO404.5 Learn Introduction to Web Services	Lecture method, practical, Use of ICT	Assignment Test PPT
CO404.6 Understand PHP Framework (Joomla / Drupal)	Lecture method, practical, Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-404 SY.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to Object Oriented Programming in PHP 1.1 Classes 1.2 Objects 1.3 Introspection 1.4 Serialization 1.5 Inheritance 1.6 Interfaces 1.7 Encapsulation	Get the knowledge of the basic concept of Object Oriented Programming in PHP.
2	Web Techniques 2.1 Server information 2.2 Processing forms 2.3 Sticky forms 2.4 Setting response headers	Students will understand Web Techniques sever information, processing forms
3	XML 3.1 Introduction XML 3.2 XML document Structure 3.3 PHP and XML 3.4 XML parser 3.5 The document object model 3.6 The simple XML extension 3.7 Changing a value with simple XML	Students understand 1 Introduction XML, XML document Structure, PHP and XML
4	Ajax with PHP 4.1 Understanding java scripts for AJAX	Students Understanding java scripts for AJAX, AJAX web

	<p>4.2 AJAX web application model</p> <p>4.3 AJAX –PHP framework</p> <p>4.4 Performing AJAX validation</p> <p>4.5 Handling XML data using php and AJAX</p> <p>4.6 Connecting database using php and AJAX</p>	<p>application model,AJAX –PHP framework</p>
5	<p>Introduction to Web Services</p> <p>5.1 Definition of web services</p> <p>5.2 Basic operational model of web services, tools and technologies enabling web services</p> <p>5.3 Benefits and challenges of using web services.</p> <p>5.4 Web services Architecture and its characteristics</p> <p>5.5 Core building blocks of web services</p> <p>5.6 Standards and technologies available for implementing web services</p> <p>5.7 Web services communication models</p> <p>5.8 Basic steps of implementing web services.</p>	<p>Get the knowledge of Basic operational model of web services, tools and technologies enabling web services</p>
6	<p>PHP Framework (Joomla / Druple)</p> <p>6.1 Introduction to Joomla/Druple</p> <p>6.1.1 Introduction</p> <p>6.1.2 Joomla/Druple features</p> <p>6.1.3 How joomla/Drupleworks ?</p> <p>6.1.4 The platform Components, Modules and Plugins</p> <p>6.2 Administering Joomla/Druple</p> <p>6.2.1 Presentation Administration</p> <p>6.2.2 Content Administration</p> <p>6.2.3 System Administration</p> <p>6.3 Working with Joomla/Druple</p> <p>6.3.1 Adding articles</p> <p>6.3.2 Adding menus to point to content</p> <p>6.3.3 Installing new templates</p> <p>6.3.4 Creating templates</p> <p>6.3.5 Adding a Module and Component</p> <p>6.3.6 Modifying the existing templates</p> <p>6.3.7 Creating templates with web editors</p> <p>6.3.8 Creating real templates</p>	<p>Students understand the basic joomla/Drupleworks , The platform Components, Modules and Plugins</p>

Table1

Course Outcome	Course Outcome
CO 404.1	Students will be able Understand Basics of Object Oriented Programming in PHP
CO 404.2	Learn different Web Techniques

CO 404.3	Understand Ajax with PHP
CO 404.4	Understand Ajax with PHP
CO 404.5	Learn Introduction to Web Services
CO 404.6	Understand PHP Framework (Joomla / Druple)

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 404.1	3	3	3	2	3
CO 404.2	3	3	3	2	3
CO 404.3	3	3	3	2	3
CO 404.4	3	3	3	2	3
CO 404.5	3	3	3	2	3
CO 404.6	3	3	3	2	3
CO 404	3	3	3	2	3

Table 3

CO	PSO1	PSO2	PSO3
CO 404.1	3	3	3
CO 404.2	3	3	3
CO 404.3	3	3	3
CO 404.4	3	3	3
CO 404.5	3	3	3
CO 404.6	3	3	3
CO 404	3	3	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	SURYAVANSHI DIPTI DEEPAK	4	Yes	6	Yes	8	Yes	7	Yes	56	Yes
2	HULAWALE KANCHAN RAM	4	Yes	6	Yes	3	No	4	Yes	39	Yes

3	RANAWARE ANKITA ANKUSH	4	Yes	6	Yes	3	No	2	No	13	No
4	AHIR UNNATI VINAYAK	4	Yes	6	Yes	2	No	6	Yes	51	Yes
5	BARTAKKE VEDICA RAJENDRA	4	Yes	6	Yes	2	No	1	No	2	No
6	CHAVAN SANIYA MANOHAR	4	Yes	6	Yes	6	Yes	2	No	55	Yes
7	KAMBLE PURVA VISHAL	4	Yes	6	Yes	3	No	3	No	25	No
8	RATHOD SNEHA SACHIN	4	Yes	6	Yes	4	Yes	2	No	45	Yes
9	KUMBHARE SAKSHI ANAND	4	Yes	6	Yes	5	Yes	6	Yes	59	Yes
10	HAGAWANE TANVI RAMDAS	4	Yes	6	Yes	1	No	2	No	0	No
11	GHONE ISHA SACHIN	4	Yes	6	Yes	2	No	2	No	8	No
12	JINGARE RAVINA SANJAY	4	Yes	6	Yes	4	Yes	4	Yes	30	Yes
13	CHORGHE ISHA SANJAY	4	Yes	6	Yes	4	Yes	4	Yes	22	No
14	DAYAL TEJAS RAVINDRA	4	Yes	6	Yes	5	Yes	AB	NA	9	No
15	BHOSALE PURVA VASANT	4	Yes	6	Yes	6	Yes	6	Yes	58	Yes
16	GHARAT AKANSHA ANIL	4	Yes	6	Yes	2	No	2	No	5	No
17	KAMBLE SHWETA VISHWANATH	4	Yes	6	Yes	2	No	2	No	9	No
18	DHANGAR NITA NARSING	4	Yes	6	Yes	2	No	1	No	37	Yes
19	CHAVAN ROHINI BABASAHEB	4	Yes	6	Yes	5	Yes	2	No	1	No
20	SONAWANE SHRUTI SHARAD	4	Yes	6	Yes	4	Yes	4	Y	35	Y

									es		e
21	KACHI AISHWARYA RAJENDRA	4	Yes	6	Yes	2	No	1	No	9	No
22	DHORE DHANSHREE CHANDRAKANT	4	Yes	6	Yes	4	Yes	3	No	2	No
23	GHATUL NIKITA SOMNATH	4	Yes	6	Yes	2	No	4	Yes	5	No
24	WAGHMARE PRIYANKA SHIVPUTRA	4	Yes	6	Yes	2	No	3	No	10	No
25	CHAUDHARI JANHAVI GANESH	4	Yes	6	Yes	8	Yes	4	Yes	58	Yes
26	CHOUHAN SANSKRITI LAKHANLAL	4	Yes	6	Yes	5	Yes	5	Yes	20	No
27	PARMAR PALLAVI UTTAM	4	Yes	6	Yes	4	Yes	3	No	37	Yes
28	CHANDANE DIKSHITA BALASAHEB	4	Yes	6	Yes	3	No	3	No	11	No
29	KAMBLE ANJALI AJAY	4	Yes	6	Yes	1	No	1	No	1	No
30	CHAVAN PRERANA RAVINDRA	4	Yes	6	Yes	2	No	3	No	31	Yes
31	KHAN ALIYA	4	Yes	6	Yes	2	No	4	Yes	28	Yes

Tool No 1 Presentation

Yes= 31 No=00 NA=00
Total No. of Yes/Total No. of
Students
31/31
1

Tool No 2 Assignments

Yes= 31 No=00 NA=00
Total No. of Yes/Total No. of
Students
31/31
1

Tool No 3 Test1

Yes= 14 No=17 NA=00
Total No. of Yes/Total No. of
Students
14/31
0.45

Tool No 4 Test2

Yes=12 No=18 NA=01
Total No. of Yes/Total No. of
Students
12/31
0.38

Tool No 5 Final Exam

Yes=14 No=17 NA=00
Total No. of Yes/Total No. of
Students
14/31
0.45

Internal Average

Assessment=Presentation+Assignm
ent+Test1+Test2
 $(1+1+0.45+0.38)/4=2.83/4=0.70$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVRAGE ATTAIMNMENT VALUE IS
 $0.70 =$ ATTAIMENT LEVEL= 3

EXTERNAL AVRAGE ATTAIMENT
AVRAGE ATTAIMNMENT VALUE IS $0.45 =$
ATTAIMENT LEVEL= 2

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (3X 3)/3 =3

PO3 (3 X 3)/3= 3

PO4 (2X3)/3=2

PO5 (3 X 3)/3= 3

Average PO attainment=2.8

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (3X3)/3=3

PSO3 (3X3)/3=3

Average PSO attainment=3

HuzurpagaMahilaVaniijaMahavidyalaya
BBA(CA) 2021-22
FYBBA(CA) Semester I (CBCS) Pattern 2019
BUSINESS COMMUNICATION
Course code 101
Credit 3

Teacher Name: Manjiri Bhide

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes:[CO 101]

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able to CO 101.1 Understand what is the role of communication in personal and business world	Lecture method USE OF ICT	Assignment Test PPT
CO 101.2 Understand system and communication and their utility	Lecture method	Assignment Test PPT
CO101.3Develop proficiency in how to write business letters and other communications in required business	Lecture method	Assignment Test PPT
CO101.4 Understand the different media of communication	Lecture method	Assignment Test PPT

Course specific Outcomes: (CO 101) BBA CA course

Unit no	Course co 101 FY BBA[CA]	Specific outcomes
		CSO
1	1 1. Concept of Communication and Introduction to Communication 1.1 Role of Communication in social and economic system 1.2Need for effective communication	Understand what is the role of communication in personal and business world

	<p>1.3 Meaning and definition</p> <p>1.4 Principles of effective communication</p> <p>1.5 Barriers to communication and overcoming</p>	
2	<p>2 Methods and types of Communication</p> <p>2.1 Written communication,</p> <p>2.2 Forms of written communication.</p> <p>2.3 Qualities, difficulties in written communication,</p> <p>2.4 Constraints in developing effective written communication</p> <p>2.5 Merits and Limitations of written communication</p> <p>2.6 Listening Written communication,</p> <p>2.7 Forms of written communication.</p> <p>2.8 Qualities, difficulties in written communication,</p> <p>2.9 Constraints in developing effective written communication</p>	<p>Understand system and communication and their utility</p>
3	<p>3. Business Correspondence</p> <p>3.1 Concept,</p> <p>3.2 Need and functions of Business Correspondence,</p> <p>3.3 Types of Business letters,</p>	<p>Develop proficiency in how to write business letters and other communications in required business</p>

	<p>3.4 Layout Drafting of business ,</p> <p>3.5 Sales Letter ,</p> <p>3.6 Orders sales circulars and business promotion letters</p> <p>3.7 written methods& types of communication</p> <p>12</p> <p>4. Analysis of different Media of Communication</p> <p>4.1 Fax communication ,</p>	
4	<p>4. Analysis of different Media of communication</p> <p>4.1 Fax communication ,</p> <p>4.2 Voice mail , 4.3 e-mails ,</p> <p>4.4.45 Tele communication through social media</p>	Understand the different media of communication

Table 1

Course	Course outcome
CO 101.1	Understand what is the role of communication in personal and business world
CO 101.2	Understand system and communication and their utility
CO101.3	Develop proficiency in how to write business letters and other

	communications in required business
CO101.4	Understand the different media of communication

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 101.1	3	2	-	3	2
CO 101.2	3	2	-	3	2
CO101.3	3	2	-	3	2
CO101.4	3	2	-	3	2
CO 101	3	2	0	3	2

Sr no	Name Of Students	ASSIGNMENT	Target>40	PRESENTATION		TEST 1		TEST 2	
1	HARADE MEGHA ANIL	6	Yes	4	yes	9	yes	9	y
2	NIVJEKAR SAKSHI VINAYAK	6	Yes	3	yes	6	yes	7	y
3	BIBAVE TRUPTI SACHIN	6	Yes	3	yes	5	yes	9	y
4	BHILARE SAMRUDDHI RAHUL	5	Yes	AB	NA	5	yes	7	y
5	MADACHETTY AVANTIKA RAMESH	6	Yes	AB	NA	3	yes	7	y
6	GAIKWAD ANISHA BAJIRAO	6	Yes	3	yes	7	yes	8	y
7	HAGAWANE DNYANESHWARI RAJU	6	Yes	3	yes	6	yes	9	y
8	HIRMUKHE AKSHATA PRABHAKAR	6	Yes	4	yes	7	yes	9	y
9	SALEKAR KETKI ASHOK	6	Yes	3	yes	5	yes	7	y

10	MAHAJAN SUKHADA MILIND		6	Yes		4	yes	6	yes	9	y
11	SURYAWANSHI VRUSHALI GANESH		6	Yes		4	yes	6	yes	9	y
12	NAGUL MANASI PRASAD		6	Yes	AB		NA	5	yes	7	y
13	PARDESHI SANIKA SUBHASH		6	yes		4	yes	5	yes	7	y
14	SURVE VAISHNAVI ANIL		5	yes		3	yes	5	yes	8	y
15	PANDIT BHAKTI SACHIN		6	yes	AB		NA	6	yes	7	y
16	THAKAR ANJALI ASHOK		6	yes		3	yes	5	yes	9	y
17	KULKARNI DEVASHREE RAM		6	yes	AB		NA	4	yes	7	y
18	KADAM PRADNYA PRASHANT		6	yes	AB		NA	4	yes	7	y
19	PASALKAR DHANSHREE SACHIN		6	yes		3	yes	6	yes	7	y
20	YASHASHREE VINOD DESHMANE	Ab		NA		3	yes	3	yes	7	y
21	PATHAK ADITEE SATYAJEET		6	yes		4	yes	7	yes	9	y
22	JADHAV AKANKSHA UTTAM		6	yes		4	yes	7	yes	9	y
23	DUBAL MADHURA NILESH		5	yes		3	yes	8	yes	9	y
24	SHITOLE VAISHNAVI RAMDAS		5	yes		3	yes	5	yes	9	y
25	MAHANAVAR ASHWINI GORAKH		6	yes		4	yes	6	yes	8	y
26	RANDIVE PRIYANKA HIRALAL		6	yes		3	yes	5	yes	6	y
27	MANE RUTUJA RAHUL		6	yes		4	yes	8	yes	9	y
28	BANKAR PAYAL BANDU		6	yes		3	yes	7	yes	9	y
29	LIMHAN SUPRIYA BALU		6	yes		3	yes	7	yes	7	y
30	RAKSHE MRUNAL SURESH		6	yes		4	yes	6	yes	6	y
31	VANNAM SAKSHI BHASKAR		6	yes		4	yes	7	yes	7	y
32	GUJAR RAVINA SADASHIV		6	yes		4	yes	5	yes	9	y
33	PHATE MANSI JAGANNATH		6	yes		4	yes	9	yes	5	y
34	PATIL MANSI KHANDOJI		6	yes		4	yes	9	yes	6	y
35	SANAS PRANJAL SOPAN		6	yes		4	yes	7	yes	3	y
36	JADHAV PRATIKSHA SANJAY		5	yes		4	yes	7	yes	5	y
37	AWALE MRUNAL MAHESH		6	yes		4	yes	8	yes	9	y

38	GORE SANGITA SITARAM	6	yes		3	yes	5	yes	7	y
39	SASWADE ARPITA AVINASH	6	yes		3	yes	7	yes	7	y
40	KURHADE NEHA VIJAY	6	yes	AB		NA	9	yes	8	y
41	JANGAM VAISHNAVI SHRIKANT	6	yes		4	yes	7	yes	7	y
42	ZORE PRIYANKA RAMCHANDRA	6	yes		3	yes	5	yes	6	y
43	PARGE AAKANKSHA KAILAS	5	yes		4	yes	7	yes	7	y
44	MANDLIK SHARON DILIP	6	yes		4	yes	7	yes	8	y
45	DASA SANJANA NARENDRA	6	yes		3	yes	7	yes	8	y
46	PANCHAL ISHIKA SANTOSH	6	yes		4	yes	AB	NA	8	y
47	HIRMUKHE AASHITA SHREESHAIL	6	yes		4	yes	6	yes	9	y
48	WALANJ VAIBHAVI ANANTA	6	yes		4	yes	6	yes	4	y
49	PALKAR SAKSHI DNYANESHWAR	6	yes		3	yes	5	yes	5	y
50	NATKAR AARTI GOKUL	6	yes		3	yes	10	yes	9	y
51	NAIK VRUSHALI BHARAT	6	yes		4	yes	9	yes	9	y
52	SUPEKAR ANILA NITIN	6	yes		3	yes	5	yes	9	y
53	MUTHA RAKSHITA SANJAY	6	yes		4	yes	8	yes	9	y
54	OVHAL MANSI DASHARATH	6	yes		4	yes	5	yes	8	y
55	JADHAV PRIYANKA BABU	6	yes		3	yes	9	yes	7	y
56	WARANKAR ADITI ANIL	6	yes		4	yes	7	yes	9	y
57	KAMBLE SHRUTI	5	yes		3	yes	4	yes	7	y

1 Tool no 1 Assignment

Yes=56 No = 0 NA =1

Total no of yes/Total no. of no students

56/57

=0.98

2 Tool no 2 presentation

Yes=50 No = 0 NA =7

Total no of yes/Total no. of no students

50/57

=0.87

3 Tool no 3 Test 1

Yes= 56 No = 0 NA =1

Total no of yes/Total no. of no students

56/57

=0.98

4 Tool no 4 Test 2

Yes= 57 No = 0 NA =0

Total no of yes/Total no. of no students

57/57

=1

5 Tool no 5 Final Exam

Internal Average Assessment =Assignment +Presentation +Test 1+ Test 2

Yes = 55 NO = 0NA =2

Total No of yes / total no of students

55/570

=0.96

Internal Average Assessment=Presentation+Assignment+Test1+Test2

[0.87+0.98+0.98+1]/4

3.83/4=0.95

0 To 0.40	1
0.40 To 0.60	2
0.60 To 1.00	3

AVRAGE ATTAIMNMENT VALUE IS 0.96 = ATTAINMENT LEVEL=3

EXTERNAL AVRAGE ATTAIMENT

AVRAGE ATTAIMNMENT VALUE IS 0.96 = ATTAINMENT LEVEL= 3

Overall course Attainment= 0.5xI A+0.5XUR Attainment

Overall course Attainment=0.5x3+0.5x3 Overall course Attainment =3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 =(3X3)/3=3

PO2(2X3)/3=2

PO(30X3)/3=0

PO4(3X3)/3=3

PO5 (3X2)/3=2

Average PO attainment =2

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO 1(0X3)/3=0

PSO 2(0X3)/3=0

PSO3 (3X3)/3=3

AVRAGE PSO ATTAINMENT =1

Huzurpaga Mahila Vanijya Mahavidyalaya

BBA(CA) 2021-22

FY BBA(CA) Semester I (CBCS) Pattern 2019

C language

Course code 103

Credit 3

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 103)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able CO1 Students developed basic knowledge about C;	Lecture method, , Use of ICT	Assignment Test PPT
CO2 : Estimate algorithm and draw flowchart to solve a given problem using I/O operations;	Lecture method, Practical Demonstration, Use of ICT	Assignment Test PPT
CO3 Interpret use of appropriate data type, control statements, looping and decision making statements to build logic	Lecture method , Use of ICT, Practical Demonstration,	Assignment Test PPT
CO4 Utilize the knowledge about Pointer, Functions, Arrays and Structures to design various C-programs.	Lecture method, Use of ICT, Practical Demonstration,	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-103 F.Y.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to C language 1.1 History 1.2 Basic structure of C Programming 1.3 Language fundamentals 1.3.1 Character set, tokens 1.3.2 Keywords and identifiers 1.3.3 Variables and data types 1.4 Operators 1.4.1 Types of operators 1.4.2 Precedence and associativity 1.4.3 Expression	To Explore algorithmic and flowchart approaches to problem solving.
2	Managing I/O operations 2.1 Console based I/O and related built-in I/O functions 2.1.1 printf(), scanf() 2.1.2 getch(), getchar() 2.2 Formatted input and formatted output	To Familiar with Fundamentals
3	Decision Making and looping 3.1 Introduction 3.2 Decision making structure 3.2.1 If statement 3.2.2 If-else statement 3.2.3 Nested if-else statement 3.2.4 Conditional operator 3.2.5 Switch statement 3.3 Loop control structures 3.3.1 while loop 3.3.2 Do-while loop 3.3.3 For loop 3.3.4 Nested for loop 3.4 Jump statements 3.4.1 break 3.4.2 continue 3.4.3	Developing Conditional and Iterative statement

	goto 3.4.4 exit	
4	Programs through conditional and looping statements Addition / Multiplication of integers Determining if a number is +ve / -ve / even / odd Maximum of 2 numbers, 3 numbers Sum of first n numbers, given n numbers Integer division, Digit reversing, Table generation for n, ab Factorial, sine series, cosine series, nCr , Pascal Triangle Prime number, Factors of a number	Practice on Program to develop logical thinking.
5	Arrays and Strings 5.1 Introduction to one-dimensional Array 5.1.1 Definition 5.1.2 Declaration 5.1.3 Initialization 5.2 Accessing and displaying array elements 5.3 Finding smallest and largest number from array 5.4 Reversing array 5.5 Finding odd/even/prime number from array 5.4 Introduction to two-dimensional Array 5.4.1 Definition 5.4.2 Declaration 5.4.3 Initialization 5.5 Accessing and displaying array elements 5.6 Matrices: Addition, Multiplication, Transpose, Symmetry, upper/lower triangular 5.7 Introductions to Strings 5.7.1 Definition 5.7.2 Declaration 5.7.3 Initialization 5.8 Standard library functions 5.9 Implementations without standard library functions	Ability to work with concept arrays, Strings
6	6.1 Introduction 6.1.1 Purpose of function 6.1.2 Function definition 6.1.3 Function declaration 6.1.4 Function call 6.2 Types of functions 6.3 Call by value and call by reference 6.4 Storage classes	Understanding a concept of functional: Modular concept.
7	7 Introduction to pointer 7.1 Definition 7.2 Declaration 7.3 Initialization 7.4 Indirection operator and address of operator 7.5 Pointer arithmetic 7.6 Dynamic memory allocation 7.7 Functions and pointers	Understanding a concept of Pointer in c.
8	8 Structures 8.1 Introduction to structure 8.2 Definition 8.3 Declaration 8.4 Accessing members 8.5 structure operations 8.6 nested structure	To learn User define datatype: structure, union

Table1

Course Outcome	Course Outcome
CO 1	Students will be able Students developed basic knowledge about C
CO 2	Estimate algorithm and draw flowchart to solve a given problem using I/O operations
CO 3	Interpret use of appropriate data type, control statements, looping and decision making statements to build logic
CO 4	Utilize the knowledge about Pointer, Functions, Arrays and Structures to design various C-programs.

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 1	3	3	2	1	3
CO 2	3	3	2	1	3
CO 3	3	3	2	1	3
CO 4	3	3	2	1	3
CO	3	3	2	1	3

Table 3

CO	PSO1	PSO2	PSO3
CO1	3	3	3
CO 2	3	3	3
CO 3	3	3	3
CO 4	3	3	3
CO	3	3	3

Roll no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	HARADE MEGHA ANIL	3	Yes	6	Yes	6	Yes	7	Yes	48	Yes
2	NIVJEKAR SAKSHI VINAYAK	3	Yes	6	Yes	7	Yes	9	Yes	50	Yes
3	BIBAVE TRUPTI SACHIN	2	Yes	6	Yes	8	Yes	9	Yes	62	Yes
4	BHILARE SAMRUDDHI RAHUL	3	Yes	6	Yes	4	Yes	8	Yes	56	Yes
5	MADACHETTY AVANTIKA RAMESH	4	Yes	6	Yes	9	Yes	8	Yes	45	Yes
6	GAIKWAD ANISHA BAJIRAO	3	Yes	6	Yes	9	Yes	9	Yes	62	Yes
7	HAGAWANE DNYANESHWARI RAJU	3	Yes	6	Yes	9	Yes	9	Yes	31	Yes
8	HIRMUKHE AKSHATA PRABHAKAR	3	Yes	6	Yes	9	Yes	9	Yes	70	Yes
9	SALEKAR KETKI ASHOK	3	Yes	6	Yes	8	Yes	8	Yes	39	Yes
10	MAHAJAN SUKHADA MILIND	3	Yes	6	Yes	10	Yes	10	Yes	56	Yes
11	SURYAWANSHI VRUSHALI GANESH	3	Yes	6	Yes	7	Yes	9	Yes	48	Yes
12	NAGUL MANASI PRASAD	3	Yes	6	Yes	9	Yes	10	Yes	49	Yes
13	PARDESHI SANIKA SUBHASH	3	Yes	6	Yes	8	Yes	8	Yes	50	Yes
14	SURVE VAISHNAVI ANIL	3	Yes	6	Yes	7	Yes	7	Yes	34	Yes
15	PANDIT BHAKTI SACHIN	AB	NA	6	Yes	9	Yes	9	Yes	38	Yes
16	THAKAR ANJALI ASHOK	4	Yes	6	Yes	7	Yes	7	Yes	50	Yes
17	KULKARNI DEVASHREE RAM	AB	NA	6	Yes	AB	NA	7	Yes	55	Yes
18	KADAM PRADNYA PRASHANT	AB	NA	6	Yes	AB	NA	7	Yes	45	Yes

19	PASALKAR DHANSHREE SACHIN	Ab	NA	6	Yes	10	Yes	9	Yes	53	Yes
20	YASHASHREE VINOD DESHMANE	AB	NA	AB	NA	6	Yes	7	Yes	50	Yes
21	PATHAK ADITEE SATYAJEET	2	Yes	6	Yes	9	Yes	9	Yes	57	Yes
22	JADHAV AKANKSHA UTTAM	4	Yes	6	Yes	10	Yes	9	Yes	62	Yes
23	DUBAL MADHURA NILESH	4	Yes	6	Yes	9	Yes	9	Yes	59	Yes
24	SHITOLE VAISHNAVI RAMDAS	3	Yes	6	Yes	9	Yes	9	Yes	48	Yes
25	MAHANAVAR ASHWINI GORAKH	4	Yes	6	Yes	8	Yes	9	Yes	45	Yes
26	RANDIVE PRIYANKA HIRALAL	3	Yes	6	Yes	7	Yes	8	Yes	49	Yes
27	MANE RUTUJA RAHUL	4	Yes	6	Yes	9	Yes	9	Yes	64	Yes
28	BANKAR PAYAL BANDU	2	Yes	6	Yes	8	Yes	9	Yes	11	Yes
29	LIMHAN SUPRIYA BALU	4	Yes	6	Yes	9	Yes	9	Yes	59	Yes
30	RAKSHE MRUNAL SURESH	4	Yes	6	Yes	10	Yes	9	Yes	52	Yes
31	VANNAM SAKSHI BHASKAR	4	Yes	6	Yes	10	Yes	10	Yes	64	Yes
32	GUJAR RAVINA SADASHIV	4	Yes	6	Yes	10	Yes	9	Yes	55	Yes
33	PHATE MANSI JAGANNATH	4	Yes	6	Yes	9	Yes	9	Yes	45	Yes
34	PATIL MANSI KHANDOJI	4	Yes	6	Yes	9	Yes	9	Yes	52	Yes
35	SANAS PRANJAL SOPAN	3	Yes	6	Yes	6	Yes	8	Yes	50	Yes
36	JADHAV PRATIKSHA SANJAY	3	Yes	6	Yes	7	Yes	8	Yes	48	Yes
37	AWALE MRUNAL MAHESH	3	Yes	6	Yes	7	Yes	9	Yes	38	Yes
38	GORE SANGITA SITARAM	3	Yes	6	Yes	5	Yes	5	Yes	49	Yes
39	SASWADE ARPITA AVINASH	3	Yes	6	Yes	9	Yes	9	Yes	53	Yes
40	KURHADE NEHA VIJAY	3	Yes	6	Yes	9	Yes	7	Yes	55	Yes
41	JANGAM VAISHNAVI SHRIKANT	3	Yes	6	Yes	9	Yes	9	Yes	53	Yes
42	ZORE PRIYANKA RAMCHANDRA	4	Yes	6	Yes	8	Yes	7	Yes	63	Yes
43	PARGE AAKANKSHA	3	Yes	6	Yes	9	Yes	9	Yes	49	Yes

	KAILAS										s
44	MANDLIK SHARON DILIP	4	Yes	6	Yes	7	Yes	7	Yes	64	Yes
45	DASA SANJANA NARENDRA	4	Yes	6	Yes	8	Yes	7	Yes	52	Yes
46	PANCHAL ISHIKA SANTOSH	4	Yes	6	Yes	9	Yes	9	Yes	50	Yes
47	HIRMUKHE AASHITA SHREESHAIL	2	Yes	6	Yes	9	Yes	9	Yes	70	Yes
48	WALANJ VAIBHAVI ANANT	3	Yes	6	Yes	8	Yes	9	Yes	52	Yes
49	PALKAR SAKSHI DNYANESHWAR	2	Yes	6	Yes	7	Yes	7	Yes	38	Yes
50	NATKAR AARTI GOKUL	3	Yes	6	Yes	8	Yes	9	Yes	49	Yes
51	NAIK VRUSHALI BHARAT	3	Yes	6	Yes	7	Yes	9	Yes	49	Yes
52	SUPEKAR ANILA NITIN	3	Yes	6	Yes	6	Yes	AB	NA	46	Yes
53	MUTHA RAKSHITA SANJAY	4	Yes	6	Yes	9	Yes	7	Yes	34	Yes
54	OVHAL MANSI DASHARATH	4	Yes	6	Yes	9	Yes	9	Yes	56	Yes
55	JADHAV PRIYANKA BABU	2	Yes	6	Yes	7	Yes	8	Yes	46	Yes
56	WARANKAR ADITI ANIL	4	Yes	6	Yes	8	Yes	9	Yes	62	Yes
57	KAMBLE SHRUTI PARSHURAM	3	Yes	6	Yes	8	Yes	8	Yes	49	Yes

1 Tool No 1 Presentation
Yes= 52 No=00 NA=05
Total No. of Yes/Total No. of Students
52/57
0.91

2 Tool No 2 Assignments
Yes= 56 No=00 NA=01
Total No. of Yes/Total No. of Students
56/57
0.98

3 Tool No 3 Test1
Yes= 55 No=00 NA=02

Total No. of Yes/Total No. of Students

55/57

0.96

4 Tool No 4 Test2

Yes= 56 No=00 NA=01

Total No. of Yes/Total No. of Students

56/57

0.98

5 Tool No 5 Final Exam

Yes= 57 No=00 NA=00

Total No. of Yes/Total No. of Students

57/57

1

Internal Average

Assessment=Presentation+Assignment+Test1+Test2

$(0.91+0.98+0.96+0.98)/4=3.53/4=0.88$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVRAGE ATTAIMNMENT VALUE IS 0.88 = ATTAINMENT LEVEL= 3

EXTERNAL AVRAGE ATTAIMENT

AVRAGE ATTAIMNMENT VALUE IS 1 = ATTAINMENT LEVEL= 3

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3 X3)/3=3

PO2 (3X 3)/3 =3

$$\text{PO3 } 2 \times 3 / 3 = 2$$

$$\text{PO4 } (1 \times 3) / 3 = 1$$

$$\text{PO5 } (3 \times 3) / 3 = 3$$

Average PO attainment=2.4

PSO Attainment

PSO1 corresponding cell value in table 3 X Overall CO attainment value)/3

$$\text{PSO1}-(3 \times 3) / 3 = 3$$

$$\text{PSO2}-(3 \times 3) / 3 = 3$$

$$\text{PSO3}-(3 \times 3) / 3 = 3$$

Average PSO attainment=3

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
FYBBA(CA) Semester I (CBCS) Pattern 2019
Subject :- Database Management Systems
Course code : 104
Credit 3

Teacher Name: Archana Thorat

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 104)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO104.1 Students will be able Understand File Structure and Organization	Lecture method, practical Use of ICT	Assignment Test PPT
CO104.2 Learn Database Management System	Lecture method, practical, Use of ICT	Assignment Test PPT
CO104.3 To learn Relational Model	Lecture method , practical, Use of ICT	Assignment Test PPT
CO104.4 Learn different commands of SQL (Structured Query Language)	Lecture method , practical	Assignment Test PPT
CO104.5 Understand Relational Database Design	Lecture method, practical Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-104 SY.BBA(CA) Course	Specific Outcomes: CSO
1	File Structure and Organization 1.1 Introduction 1.2 Logical and Physical Files 1.2.1 File 1.2.2 File Structure 1.2.3 Logical and Physical Files Definitions 1.3 Basic File Operations 1.3.1 Opening Files 1.3.2 Closing Files 1.3.3 Reading and Writing 1.3.4 Seeking 1.4 File Organization 1.4.1 Field and Record structure in file 1.4.2 Record Types 1.4.3 Types of file organization 1.4.3.1 Sequential 1.4.3.2 Indexed 1.4.3.3 Hashed 1.5 Indexing 1.5.1 What is an Index? 1.5.2 When to use Indexes? 1.5.3 Types of Index 1.5.3.1 Dense Index 1.5.3.2 Sparse Index	To understand the file structure and its organization.
2	Database Management System 2.1 Introduction 2.2 Basic Concept and Definitions 2.2.1 Data and Information 2.2.2 Data Vs Information 2.2.3 Data Dictionary 2.2.4 Data Item or Field 2.2.5 Record 2.3 Definition of DBMS 2.4 Applications of DBMS 2.5 File processing system Vs DBMS 2.6 Advantages and Disadvantages of DBMS 2.7 Users of DBMS 2.7.1 Database Designers 2.7.2 Application programmer 2.7.3 Sophisticated Users 2.7.4 End Users 2.8 Views of Data 2.9 Data Models 2.9.1 Object Based Logical Model a. Object	Students get the knowledge of Relational Database concepts which is the basic requirements of every organization.

	Oriented Data Model b. Entity Relationship Data Model 2.9.2 Record Base Logical Model a. Relational Model b. Network Model c. Hierarchical Model 2.10 Entity Relationship Diagram(ERD) 2.11 Extended features of ERD 2.12 Overall System structure	
3	Relational Model 3.1 Introduction 3.2 Terms a. Relation b. Tuple c. Attribute d. Cardinality e. Degree of relationship set f. Domain 3.3 Keys 3.3.1 Super Key 3.3.2 Candidate Key 3.3.3 Primary Key 3.3.4 Foreign Key 3.4 Relational Algebra Operations a. Select b. Project c. Union d. Difference e. Intersection f. Cartesian Product g. Natural Join	Give a description of the Database Management structure.
4	SQL (Structured Query Language) 4.1 Introduction 4.2 History Of SQL 4.3 Basic Structure 4.4 DDL Commands 4.5 DML Commands 4.6 Simple Queries 4.7 Nested Queries 4.8 Aggregate Functions	Students are able to Compare relational model with the Structured Query Language (SQL)
5	Relational Database Design 5.1 Introduction 5.2 Anomalies of un normalized database 5.3 Normalization 5.4 Normal Form 5.4.1 1 NF 5.4.2 2 NF 5.4.3 3 NF 5.4.3.4 BCNF	Students are able to Normalize the Complex data into simple tables.

Table1

Course Outcome	Course Outcome
CO 104.1	Students will be able Understand File Structure and Organization
CO 104.2	Learn Database Management System
CO 104.3	To learn Relational Model
CO 104.4	Learn different commands of SQL (Structured Query Language)
CO 104.5	Understand Relational Database Design

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 104.1	3	3	3	2	3
CO 104.2	3	3	3	2	3

CO 104.3	3	3	3	2	3
CO 104.4	3	3	3	2	3
CO 104.5	3	3	3	2	3
CO 104	3	3	3	2	3

Table 3

CO	PSO1	PSO2	PSO3
CO 104.1	3	2	3
CO 104.2	3	2	3
CO 104.3	3	2	3
CO 104.4	3	2	3
CO 104.5	3	2	3
CO 104	3	2	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target 40
1	HARADE MEGHA ANIL	3	Yes	6	Yes	9	Yes	9	Yes	52	Yes
2	NIVJEKAR SAKSHI VINAYAK	3	Yes	6	Yes	9	Yes	9	Yes	53	Yes
3	BIBAVE TRUPTI SACHIN	3	Yes	6	Yes	9	Yes	9	Yes	45	Yes
4	BHILARE SAMRUDDHI RAHUL	2	Yes	6	Yes	5	Yes	7	Yes	62	Yes
5	MADACHETTY AVANTIKA RAMESH	2	Yes	6	Yes	6	Yes	9	Yes	34	Yes
6	GAIKWAD ANISHA BAJIRAO	3	Yes	6	Yes	7	Yes	9	Yes	45	Yes
7	HAGAWANE DNYANESHWARI RAJU	2	Yes	6	Yes	7	Yes	7	Yes	41	Yes
8	HIRMUKHE AKSHATA PRABHAKAR	3	Yes	6	Yes	5	Yes	9	Yes	64	Yes
9	SALEKAR KETKI ASHOK	3	Yes	6	Yes	7	Yes	9	Yes	56	Yes
10	MAHAJAN SUKHADA MILIND	2	Yes	6	Yes	7	Yes	8	Yes	57	Yes
11	SURYAWANSHI VRUSHALI GANESH	3	Yes	6	Yes	7	Yes	9	Yes	53	Yes
12	NAGUL MANASI PRASAD	3	Yes	6	Yes	7	Yes	9	Yes	59	Yes
13	PARDESHI SANIKA SUBHASH	2	Yes	6	Yes	7	Yes	9	Yes	50	Yes
14	SURVE VAISHNAVI ANIL	AB	NA	6	Yes	8	Yes	8	Yes	28	Yes

15	PANDIT BHAKTI SACHIN	AB	NA	6	Yes	8	Yes	7	Yes	35	Yes
16	THAKAR ANJALI ASHOK	3	Yes	6	Yes	8	Yes	9	Yes	52	Yes
17	KULKARNI DEVASHREE RAM	AB	NA	6	Yes	8	Yes	8	Yes	52	Yes
18	KADAM PRADNYA PRASHANT	AB	NA	6	Yes	8	Yes	8	Yes	50	Yes
19	PASALKAR DHANSHREE SACHIN	3	Yes	6	Yes	9	Yes	9	Yes	59	Yes
20	YASHASHREE VINOD DESHMANE	AB	NA	6	Yes	7	Yes	8	Yes	43	Yes
21	PATHAK ADITEE SATYAJEET	2	Yes	6	Yes	6	Yes	8	Yes	55	Yes
22	JADHAV AKANKSHA UTTAM	2	Yes	6	Yes	9	Yes	8	Yes	66	Yes
23	DUBAL MADHURA NILESH	2	Yes	6	Yes	9	Yes	9	Yes	67	Yes
24	SHITOLE VAISHNAVI RAMDAS	3	Yes	6	Yes	7	Yes	9	Yes	57	Yes
25	MAHANAVAR ASHWINI GORAKH	3	Yes	6	Yes	7	Yes	9	Yes	66	Yes
26	RANDIVE PRIYANKA HIRALAL	3	Yes	6	Yes	6	Yes	9	Yes	59	Yes
27	MANE RUTUJA RAHUL	3	Yes	6	Yes	7	Yes	7	Yes	56	Yes
28	BANKAR PAYAL BANDU	3	Yes	6	Yes	6	Yes	9	Yes	28	Yes
29	LIMHAN SUPRIYA BALU	3	Yes	6	Yes	8	Yes	9	Yes	52	Yes
30	RAKSHE MRUNAL SURESH	2	Yes	6	Yes	7	Yes	8	Yes	50	Yes
31	VANNAM SAKSHI BHASKAR	2	Yes	6	Yes	7	Yes	9	Yes	49	Yes
32	GUJAR RAVINA SADASHIV	3	Yes	6	Yes	10	Yes	9	Yes	60	Yes
33	PHATE MANSI JAGANNATH	3	Yes	6	Yes	9	Yes	8	Yes	57	Yes
34	PATIL MANSI KHANDOJI	3	Yes	6	Yes	9	Yes	7	Yes	52	Yes
35	SANAS PRANJAL SOPAN	AB	NA	6	Yes	5	Yes	8	Yes	67	Yes
36	JADHAV PRATIKSHA SANJAY	3	Yes	6	Yes	5	Yes	7	Yes	45	Yes
37	AWALE MRUNAL MAHESH	2	Yes	6	Yes	7	Yes	8	Yes	70	Yes
38	GORE SANGITA SITARAM	2	Yes	6	Yes	5	Yes	7	Yes	52	Yes
39	SASWADE ARPITA AVINASH	3	Yes	6	Yes	7	Yes	9	Yes	53	Yes
40	KURHADE NEHA VIJAY	3	Yes	6	Yes	6	Yes	9	Yes	52	Yes
41	JANGAM VAISHNAVI SHRIKANT	3	Yes	6	Yes	8	Yes	9	Yes	63	Yes
42	ZORE PRIYANKA RAMCHANDRA	3	Yes	6	Yes	5	Yes	9	Yes	46	Yes
43	PARGE AAKANKSHA KAILAS	3	Yes	6	Yes	9	Yes	8	Yes	52	Yes

44	MANDLIK SHARON DILIP	2	Yes	6	Yes	5	Yes	9	Yes	56	Yes
45	DASA SANJANA NARENDRA	2	Yes	6	Yes	7	Yes	9	Yes	53	Yes
46	PANCHAL ISHIKA SANTOSH	AB	NA	6	Yes	7	Yes	8	Yes	59	Yes
47	HIRMUKHE AASHITA SHREESHAIL	AB	NA	6	Yes	5	Yes	9	Yes	59	Yes
48	WALANJ VAIBHAVI ANANT	2	Yes	6	Yes	4	Yes	9	Yes	60	Yes
49	PALKAR SAKSHI DNYANESHWAR	2	Yes	6	Yes	5	Yes	7	Yes	34	Yes
50	NATKAR AARTI GOKUL	3	Yes	6	Yes	AB	NA	9	Yes	63	Yes
51	NAIK VRUSHALI BHARAT	3	Yes	6	Yes	9	Yes	9	Yes	41	Yes
52	SUPEKAR ANILA NITIN	3	Yes	6	Yes	10	Yes	9	Yes	53	Yes
53	MUTHA RAKSHITA SANJAY	3	Yes	6	Yes	7	Yes	7	Yes	42	Yes
54	OVHAL MANSI DASHARATH	3	Yes	6	Yes	5	Yes	8	Yes	56	Yes
55	JADHAV PRIYANKA BABU	2	Yes	6	Yes	5	Yes	9	Yes	59	Yes
56	WARANKAR ADITI ANIL	3	Yes	6	Yes	7	Yes	8	Yes	70	Yes
57	KAMBLE SHRUTI PARSHURAM	3	Yes	6	Yes	5	Yes	9	Yes	63	Yes

Tool No 1 Presentation

Yes= 47 No=00 NA=10
Total No. of Yes/Total No. of
Students

47/57

0.82

Tool No 2 Assignments

Yes= 57 No=00 NA=00
Total No. of Yes/Total No. of
Students

57/57

1

Tool No 3 Test1

Yes= 56 No=00 NA=01
Total No. of Yes/Total No. of
Students

56/57

0.98

Tool No 4 Test2

Yes= 57 No=00 NA=00
Total No. of Yes/Total No. of
Students
57/57
1

Tool No 5 Final Exam

Yes= 57 No=00 NA=00
Total No. of Yes/Total No. of
Students
57/57
1

Internal Average
Assessment=Presentation+Assi
gnment+Test1+Test2
 $(0.82+1+0.98+1)/4=3.8/4=0.95$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVRAGE ATTAIMNMENT VALUE IS 0.95=
ATTAINMENT LEVEL= 3

EXTERNAL AVRAGE
ATTAIMENT
AVRAGE ATTAIMNMENT VALUE IS 1 =
ATTAINMENT LEVEL= 3

Overall course Attainment= 0.5x1A attainment+ 0.5xUR attainment

Overall course Attainment= 0.5x3+ 0.5x3 Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (3X 3)/3 =3

PO3 (3 X 3)/3= 3

PO4 (2X3)/3=2

PO5 (3 X 3)/3= 3

Average PO attainment=2.8

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (2X3)/3=2

PSO3 (3X3)/3=3

Average PSO attainment=2.66

FYBBA(CA) Semester II (CBCS) Pattern 2019
Organizational Behaviour & Human resource Management
Course code CA201
Credit 3

Teacher Name: Manjiri Bhide

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes:[co 101]

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
<p>Students will be able to –</p> <p>CO 201.1 To understand the basic concept of OB & To develop knowledge about major trends & ability to handle cultural</p> <p>IdiifveebsailtaynScetr. ess</p>	<p>Lecture ,interactive teaching & ice breaking sessions,</p>	<p>Role play on HRM</p>
<p>CO 201.2 To understand the basic concept of HRM & developing knowledge & ability of the student about HRM</p>	<p>Guest lecture</p>	<p>Assignment</p>
<p>CO201.3 To understand process & importance of HR procurement</p> <p>and to develop the skills among students regarding awareness of new trends of Recruitment Selection and interview preparation</p>	<p>lab activity of searching links about E-recruitment and E-selection</p>	<p>Project report</p>
<p>CO201.4</p> <p>To know the training & performance appraisal methods</p> <p>& To develop evaluation skill.</p>	<p>Case study ,video clips on cultural diversity and stress management</p>	<p>Case study report</p>

Course specific Outcomes: (CO 101) BBA CA course

Unit no	Course co 101 FY BBA[CA]	Specific outcomes CSO
1 Introduction to Organizational Behavior	Defination ,concept ,scope,Models of OB , Major trends in OB:- Total quality management, Cultural diversity, Organisational change, Stress management: Sorce of Stress, Effects of Stress and Stress Management, Work Life Balance and Quality of Work Life	To understand the basic concept of OB & To develop knowledge about major trends & ability to handle cultural IdiiifveebsailtaynScetr. ess
2	Introduction to HRM – Definition, Concepts, Scope , Importance, Functions, Objectives and Limitations, Role of HR Manager, Areas in which Human Resource Manager can be of assistance	To understand the basic concept of HRM & developing knowledge & ability of the student about HRM
3	HRP – Concept, Definition, Merits and Demerits, Process, Influencing factors of HRP Recruitment – Concept, Definition, Sources of Recruitment and their utility in identifying vacancies in methods, E-recruitment Selection – Concepts, Definition, Process, Types of interviews and frequently asked interview questions from the candidate at each step and how to answer them, E-selection	To understand process & importance of HR procurement and to develop the skills among students regarding awareness of new trends of Recruitment Selection and interview preparation
4	Training & Development – Concept, Definition, Importance, Methods, E-Training, Recent trends in Training	To know the training & performance appraisal methods & To develop evaluation skill

Table 1

Course	Course outcome
CO 201.1	To understand the basic concept of OB
CO201.2	To understand the basic concept of HRM
CO201.3	To understand process & importance of HR procurement
CO201.4	To know the training & performance appraisal methods

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 201.1	3	2	-	3	2
CO 201.2	3	2	-	3	2
CO201.3	3	2	-	3	2
CO201.4	3	2	-	3	2

Table 3

CO	PSO1	PSO2	PSO3
CO 201.1	-	-	2
CO 201.2	-	-	2
CO201.3	-	-	2
CO201.4	-	-	2

Name of students													
HARADE MEGHA ANIL	9	yes	5	yes	5	yes	5	yes	24	yes	41	yes	65
NIVJEKAR SAKSHI VINAYAK	7	yes	5	yes	5	yes	5	yes	22	yes	23	yes	45
BIBAVE TRUPTI SACHIN	9	yes	5	yes	5	yes	5	yes	24	yes	28	yes	52
BHILARE SAMRUDDHI RAHUL	8	yes	5	yes	5	yes	5	yes	23	yes	12	yes	35
MADACHETTY AVANTIKA RAMESH	7	yes	5	yes	5	yes	5	yes	22	yes	19	yes	41
GAIKWAD ANISHA BAJIRAO	8	yes	5	yes	5	yes	5	yes	23	yes	37	yes	60
HAGAWANE DNYANESHWARI RAJU	8	yes	5	yes	5	yes	5	yes	23	yes	28	yes	51
HIRMUKHE AKSHATA PRABHAKAR	7	yes	5	yes	5	yes	5	yes	22	yes	32	yes	55
SALEKAR KETKI ASHOK	6	yes	5	yes	5	yes	5	yes	21	yes	28	yes	49
MAHAJAN SUKHADA MILIND	8	yes	5	yes	5	yes	5	yes	23	yes	42	yes	65
SURYAWANSHI VRUSHALI GANESH	9	yes	5	yes	5	yes	5	yes	24	yes	34	yes	58
NAGUL MANASI PRASAD	10	yes	5	yes	5	yes	5	yes	25	yes	47	yes	72
PARDESHI SANIKA SUBHASH	5	yes	5	yes	5	yes	5	yes	20	yes	9	NO	29
SURVE VAISHNAVI ANIL	5	yes	5	yes	5	yes	5	yes	20	yes	8	NO	28
PANDIT BHAKTI SACHIN	5	yes	4	yes	5	yes	4	yes	18	yes	23	yes	41
THAKAR ANJALI ASHOK	12	yes	5	yes	5	yes	5	yes	27	yes	36	yes	63
KULKARNI DEVASHREE RAM	4	yes	3	yes	4	yes	4	yes	15	yes	8	NO	23
KADAM PRADNYA PRASHANT	5	yes	AB	NA	5	yes	5	yes	15	yes	7	NO	22
PASALKAR DHANSHREE SACHIN	5	yes	5	yes	5	yes	5	yes	20	yes	21	yes	41
YASHASHREE VINOD DESHMANE	4	yes	5	yes	5	yes	5	yes	15	yes	9	NO	24
PATHAK ADITEE SATYAJEET	12	yes	5	yes	5	yes	5	yes	27	yes	33	yes	60
JADHAV AKANKSHA UTTAM	12	yes	5	yes	5	yes	5	yes	27	yes	53	yes	80
DUBAL MADHURA NILESH	6	yes	2	yes	5	yes	5	yes	18	yes	36	yes	54
SHITOLE VAISHNAVI RAMDAS	8	yes	5	yes	5	yes	5	yes	23	yes	43	yes	66
MAHANAVAR ASHWINI GORAKH	5	yes	5	yes	5	yes	5	yes	20	yes	38	yes	58
RANDIVE PRIYANKA HIRALAL	3	yes	5	yes	5	yes	5	yes	18	yes	22	NO	40
MANE RUTUJA RAHUL	8	yes	5	yes	5	yes	5	yes	23	yes	34	yes	57
BANKAR PAYAL BANDU	5	yes	5	yes	5	yes	5	yes	20	yes	20	NO	40
LIMHAN SUPRIYA BALU	12	yes	5	yes	5	yes	5	yes	27	yes	18	NO	45
RAKSHE MRUNAL SURESH	4	yes	5	yes	5	yes	5	yes	19	yes	44	yes	63
VANNAM SAKSHI BHASKAR	10	yes	5	yes	5	yes	5	yes	25	yes	42	yes	67
GUJAR RAVINA SADASHIV	14	yes	5	yes	5	yes	5	yes	29	yes	40	yes	69

PHATE MANSI JAGANNATH	9	yes	5	yes	5	yes	5	yes	24	yes	51	yes	75
PATIL MANSI KHANDOJI	10	yes	5	yes	5	yes	5	yes	25	yes	56	yes	81
SANAS PRANJAL SOPAN	4	yes	5	yes	5	yes	5	yes	19	yes	26	NO	45
JADHAV PRATIKSHA SANJAY	8	yes	5	yes	5	yes	5	yes	23	yes	27	NO	50
AWALE MRUNAL MAHESH	10	yes	5	yes	5	yes	5	yes	25	yes	29	yes	54
GORE SANGITA SITARAM	9	yes	5	yes	5	yes	5	yes	24	yes	28	yes	52
SASWADE ARPITA AVINASH	8	yes	5	yes	5	yes	5	yes	23	yes	20	NO	43
KURHADE NEHA VIJAY	9	yes	5	yes	5	yes	5	yes	24	yes	20	NO	44
JANGAM VAISHNAVI SHRIKANT	9	yes	5	yes	5	yes	5	yes	24	yes	28	yes	52
ZORE PRIYANKA RAMCHANDRA	9	yes	5	yes	5	yes	5	yes	24	yes	20	NO	44
PARGE AAKANKSHA KAILAS	6	yes	5	yes	5	yes	5	yes	21	yes	30	yes	51
MANDLIK SHARON DILIP	8	yes	5	yes	5	yes	5	yes	23	yes	28	yes	51
DASA SANJANA NARENDRA	6	yes	5	yes	5	yes	5	yes	21	yes	30	yes	51
PANCHAL ISHIKA SANTOSH	8	yes	5	yes	5	yes	5	yes	23	yes	28	yes	51
HIRMUKHE AASHITA SHREESHAIL	8	yes	5	yes	5	yes	5	yes	23	yes	32	yes	55
WALANJ VAIBHAVI ANANTA	8	yes	5	yes	5	yes	5	yes	23	yes	22	yes	45
PALKAR SAKSHI DNYANESHWAR	6	yes	5	yes	5	yes	5	yes	21	yes	20	NO	41
NATKAR AARTI GOKUL	8	yes	5	yes	5	yes	5	yes	23	yes	17	NO	40
NAIK VRUSHALI BHARAT	7	yes	5	yes	5	yes	5	yes	22	yes	40	yes	62
SUPEKAR ANILA NITIN	AB	NA	5	yes	5	yes	5	yes	15	yes	48	yes	63
MUTHA RAKSHITA SANJAY	11	yes	5	yes	5	yes	5	yes	26	yes	39	yes	65
OVHAL MANSI DASHARATH	11	yes	5	yes	5	yes	5	yes	26	yes	32	yes	58
JADHAV PRIYANKA BABU	11	yes	5	yes	5	yes	4	yes	25	yes	15	NO	40
WARANKAR ADITI ANIL	11	yes	5	yes	5	yes	5	yes	26	yes	57	yes	83
KAMBLE SHRUTI	8	yes	5	yes	5	yes	5	yes	23	yes	28	yes	51

1 Tool no 1 TEST

Yes= 56 No =0 NA =1

Total no of yes/Total no. of no students

56/58

0.96

2 Tool no 2 case study

Yes= 56 No =0 NA =1

Total no of yes/Total no. of students

56/58

0.96

3 Tool no 3 Assignment

Yes= 57 No =0 NA =0

Total no of yes/Total no. of no students

57/58

0.98

4 Tool no 4 project

Yes=57 No = 0 NA =0

Total no of yes/Total no. of no students

57/58

0.98

5 Tool no 5 Final Exam

Yes =51 No =16 NA =0

Total No of yes /Total No of Students

51/58

0.87

Internal Average Assessment=Test+case study +Assignment+project

$(0.96+0.96+0.98+0.98)/4=0.97$

0 To 0.40	1
0.40 To 0.60	2
0.60 To 1.00	3

AVRAGE ATTAIEMENT VALUE IS 0.97=ATTAINMENT LEVEL=3

EXTERNAL AVRAGE ATTAIMENT

AVERAGE ATTAINMENT VALUE IS 0.87 = ATTAINMENT LEVEL= 3

Overall course Attainment= $0.5 \times I A + 0.5 \times UR$ Attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment =3

PO Attainment

PO1 =(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 =(3X3)/3=3

PO2=(2X3)/3=2

PO3=(0X3)/3=0

PO4=(3X3) //3=3

PO5 =(2X3)/3=2

Average PO attainment =2

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO 1=(0X3)/3=0

PSO 2=(0X3)/3=0

PSO3 =(2X3)/3=2

AVERAGE PSO ATTAINMENT =0.66

HuzurpagaMahilaVaniijaMahavidyalaya

BBA(CA) 2021-22

FYBBA(CA) Semester II (CBCS) Pattern 2019

Business Mathematics

Course code 203

Credit 3

Teacher Name: Vijeta Rashinkar

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce
PSO2	Students will get wellknowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology
PSO3	. Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 203)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able CO203.1 Understand the Mathematics in various business situations,	Lecture method,	Assignment Test PPT
Co203.2. Learn the basics of Profit and loss .	Lecture method	Assignment Test PPT
CO203.3 Learning the business maths like calculation of SI and CI .Annuity.	Lecture method ,	Assignment Test PPT
CO203.4 basic concepts of matrix and determinant. Calculation of minors and cofactors .finding inverse.	Lecture method ,	Assignment Test PPT
CO203.5 Basic knowledge of Linear Programming Problems.	Lecture method	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-401 SY.BBA(CA) Course	Specific Outcomes: CSO
1	1. Ratio, Proportion and Percentage: Ratio – Definition, Continued Ratio, Inverse Ration, Proportion, Continued Proportion, Direct Proportion, Inverse Proportion, Variation, Inverse Variation, Joint Variation, Percentage, computation of Percentage.	students will understand the basic knowledge of business maths
2	. Profit and Loss: - Terms and Formulae, Trade discount, Cash discount, Problems involving cost price, selling price, Trade discount and cash discount. Introduction to Commission and brokerage, Problems on commission and brokerage	To get the knowledge of discount,trade discount, profit loss.
3	Interest and Annuity: - Simple interest, Compound interest, Equated monthly Installments (EMI) by interest of reducing balance and flat interest methods and problems. Ordinary annuity, sinker fund, annuity due, present value and future value of annuity. Shares and Mutual Funds:- Concepts of Shares, face value, market value, dividend, brokerage, equity shares, preferential shares, bonus shares, examples and problems, Concept of Mutual Funds, Change in Net Asset Value (NAV), Systematic Investment Plan (SIP), Examples a	Calculation SI and CI. Annuity will be used banking sectors. Mutual funds and shares will help students to know about the investment plans.
4	4.Matrices and Determinant: - Definition of Matrices, Types of Matrices, Algebra of Matrices, Determinant, Adjoint of Matrix, Inverse of Matrix,	.matrix and and determinant gives idea of basic mathematics

	System of Linear equations, Solution of System of Linear Equation by adjoint method (upto 3 variables only).	
5	5. Linear Programming Problem (LPP) Concept of LPP, Formulation of LPP and solution of LPP by graphical method. Transportation Problem (T.P.): - Concept of Transportation Problem, Initial Basic Feasible Solution, North-West Corner Method (NWCM), Least Cost Method (LCM), Vogel's Approximation Method (VAM).	LPP helps in understanding the techniques of industries.

Table1

Course Outcome	Course Outcome
CO 203.1	Learn the concept of Ratio, Proportion and Percentage.
CO 203.2	Basic concept of Profit and Loss
CO 203.3	How to calculate Simple interest and Compound interest
CO 204.4	Learning Matrices and Determinants.
CO 204.5	Learning basics Linear programming problems and transportation problem.

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 204.1	3	1	-	-	3
CO 204.2	3	1	-	-	3
CO 204.3	3	1	-	-	3
CO 204.4	3	1	-	-	3
CO 204.5	3	1	-	-	3

Table 3

CO	PSO1	PSO2	PSO3
CO 204.1	-	1	2
CO 204.2	-	1	2
CO 204.3	-	1	2
CO 204.4	-	1	2
CO 204.5	-	1	2

Sr no	Name Of Students	Test 1(10)	Test 2(10)	Assignment	PP T	Total	External
1	HARADE MEGHA ANIL	3 No	3 No	N	Y	Y	Y
2	NIVJEKAR SAKSHI VINAYAK	2 Yes	5 s	Y	Y	Y	Y
3	BIBAVE TRUPTI SACHIN	4 No	7 s	Y	Y	Y	Y
4	BHILARE SAMRUDDHI RAHUL	2 No	3 o	N	Y	Y	N
5	MADACHETT Y AVANTIKA RAMESH	2 Yes	4 s	Y	Y	Y	Y
6	GAIKWAD ANISHA BAJIRAO	4 No	3 o	N	Y	Y	Y
7	HAGAWANE DNYANESHW ARI RAJU	0 No	2 o	N	Y	Y	Y
8	HIRMUKHE AKSHATA PRABHAKAR	2 No	2 o	N	Y	Y	Y
9	SALEKAR KETKI ASHOK	2 No	5 s	Y	Y	Y	N
10	MAHAJAN SUKHADA MILIND	3 Yes	6 s	Y	Y	Y	Y
11	SURYAWANS HI VRUSHALI GANESH	4 Yes	5 s	Y	Y	Y	Y
12	NAGUL MANASI PRASAD	4 Yes	7 s	Y	Y	Y	Y
13	PARDESHI SANIKA SUBHASH	4 No	4 s	Y	Y	Y	N
14	SURVE VAISHNAVI ANIL	2 No	4 s	Y	Y	Y	N
15	PANDIT BHAKTI	3 Yes	4 e	Y	Y	Y	N

	SACHIN			s	s	s	s	
	THAKAR			Y	Y	Y	Y	Y
16	ANJALI			e	e	e	2 e	e
	ASHOK	4	No	6 s	6 s	4 s	0 s	37 s
	KULKARNI				Y	Y	Y	
17	DEVASHREE				e	e	1 e	N
	RAM	2	No	AB	6 s	4 s	2 s	15 o
	KADAM				Y	Y	Y	
18	PRADNYA				e	e	1 e	N
	PRASHANT	2	No	AB	6 s	4 s	2 s	13 o
	PASALKAR				Y	Y	Y	
19	DHANSHREE			N	e	e	1 e	N
	SACHIN	2	No	2 o	6 s	4 s	4 s	16 o
	YASHASHREE				Y	Y	Y	
20	VINOD			N	e	e	1 e	N
	DESHMANE	0	Yes	2 o	6 s	4 s	2 s	8 o
	PATHAK			Y	Y	Y	Y	Y
21	ADITEE			e	e	e	2 e	e
	SATYAJEET	6	No	9 s	6 s	4 s	5 s	38 s
	JADHAV			Y	Y	Y	Y	Y
22	AKANKSHA			e	e	e	1 e	e
	UTTAM	3	No	5 s	6 s	4 s	8 s	51 s
	DUBAL			Y	Y	Y	Y	Y
23	MADHURA			e	e	e	1 e	e
	NILESH	1	No	4 s	6 s	4 s	5 s	29 s
	SHITOLE			Y	Y	Y	Y	Y
24	VAISHNAVI			e	e	e	1 e	e
	RAMDAS	2	Yes	5 s	6 s	4 s	7 s	31 s
	MAHANAVAR			Y	Y	Y	Y	Y
25	ASHWINI			e	e	e	1 e	e
	GORAKH	4	No	4 s	6 s	4 s	8 s	42 s
	RANDIVE				Y	Y	Y	
26	PRIYANKA			N	e	e	1 e	N
	HIRALAL	2	Yes	1 o	6 s	4 s	3 s	27 o
	MANE			Y	Y	Y	Y	Y
27	RUTUJA			e	e	e	2 e	e
	RAHUL	8	No	5 s	6 s	4 s	3 s	47 s
	BANKAR				Y	Y	Y	
28	PAYAL			N	e	e	1 e	N
	BANDU	1	No	1 o	6 s	4 s	2 s	10 o
	LIMHAN			Y	Y	Y	Y	Y
29	SUPRIYA			e	e	e	1 e	e
	BALU	3	Yes	6 s	6 s	4 s	9 s	29 s
	RAKSHE				Y	Y	Y	Y
30	MRUNAL			N	e	e	1 e	e
	SURESH	Ab	No	3 o	6 s	4 s	3 s	28 s
	VANNAM			Y	Y	Y	Y	Y
31	SAKSHI			e	e	e	2 e	e
	BHASKAR	2	Yes	8 s	6 s	4 s	0 s	45 s

32	GUJAR RAVINA SADASHIV	8	No	8	Y e s	6	Y e s	4	Y e s	6	Y e s	52	Y e s
33	PHATE MANSI JAGANNATH	3	Yes	9	Y e s	6	Y e s	4	Y e s	2	Y e s	20	N o Y
34	PATIL MANSI KHANDOJI	5	Yes	8	Y e s	6	Y e s	4	Y e s	3	Y e s	46	Y e s
35	SANAS PRANJAL SOPAN	4	No	4	Y e s	6	Y e s	4	Y e s	1	Y e s	29	Y e s
36	JADHAV PRATI KSHA SANJAY	2	No	AB		6	Y e s	4	Y e s	2	Y e s	14	N o
37	AWALE MRUNAL MAHESH	1	No	2	N o	6	Y e s	4	Y e s	1	Y e s	27	N o
38	GORE SANGITA SITARAM	1	No	5	Y e s	6	Y e s	4	Y e s	6	Y e s	9	N o
39	SASWADE ARPITA AVINASH	3	No	4	Y e s	6	Y e s	4	Y e s	7	Y e s	28	Y e s
40	KURHADE NEHA VIJAY	1	No	3	N o	6	Y e s	4	Y e s	4	Y e s	29	Y e s
41	JANGAM VAISHNAVI SHRIKANT	1	No	4	Y e s	6	Y e s	4	Y e s	5	Y e s	33	Y e s
42	ZORE PRIYANKA RAMCHANDR A	2	No	3	N o	6	Y e s	4	Y e s	5	Y e s	21	N o
43	PARGE AAKANKSHA KAILAS	2	No	4	Y e s	6	Y e s	4	Y e s	6	Y e s	28	Y e s
44	MANDLIK SHARON DILIP	1	Yes	2	N o	6	Y e s	4	Y e s	3	Y e s	34	Y e s
45	DASA SANJANA NARENDRA	4	Yes	5	Y e s	6	Y e s	4	Y e s	9	Y e s	36	Y e s
46	PANCHAL ISHIKA SANTOSH	5	No	5	Y e s	6	Y e s	4	Y e s	0	Y e s	32	Y e s
47	HIRMUKHE AASHITA SHREESHAIL	3	No	3	N o	6	Y e s	4	Y e s	6	Y e s	38	Y e s

48	WALANJ VAIBHAVI ANANTA	3	No	1	o	6	s	4	s	4	s	28	s
49	PALKAR SAKSHI DNYANESHW AR	3	No	5	s	6	s	4	s	8	s	32	s
50	NATKAR AARTI GOKUL	1	No	4	s	6	s	4	s	5	s	30	s
51	NAIK VRUSHALI BHARAT	3	No	6	s	6	s	4	s	9	s	39	s
52	SUPEKAR ANILA NITIN	2	No	AB		6	s	4	s	2	s	20	o
53	MUTHA RAKSHITA SANJAY	2	No	3	o	6	s	4	s	5	s	41	s
54	OVHAL MANSI DASHARATH	2	No	3	o	6	s	4	s	5	s	28	s
55	JADHAV PRIYANKA BABU	1	No	3	o	6	s	4	s	4	s	17	o
56	WARANKAR ADITI ANIL	3	No	5	s	6	s	4	s	8	s	30	s
57	KAMBLE SHRUTI	0	No	4	s	6	s	4	s	4	s	28	s

1)

Tool no 1 Test 1

Yes= 14 ,No=42 NA=01

Toal no of Yes/Total no of Students

$$14/57=0.2456$$

2) Tool No 2 Test2

Yes=35 ,No= 17 NA=05

Toal no of Yes/Total no of Students

$$35/57=0.6140$$

3)Tool No 3 Assignment

Yes= 57 ,No=00 NA=00

$$57/57=1$$

4)Tool No 4 PPT

$$\text{Yes}=57, \text{No}=00 \quad \text{NA}=00$$

Total no of Yes/Total no of students

$$57/57=1$$

5) Tool No 5 Final Exam

$$\text{Yes}=48, \text{No}=09 \quad \text{NA}=00$$

Total no of Yes/Total no of Students

$$48/57=0.8421$$

Internal average attainment=PPT+Assignment+Test1+Test2

$$(0.2456+0.6146+1+1)/4=2.8602/4=0.7151$$

0 TO 0.40	1
0.41 TO 0.60	2
0.61 TO 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.7151=ATTAINMENT LEVEL=3

EXTERNAL AVERAGE ATTAINMENT

AVERAGE ATTAINMENT VALUE IS 0.8421=ATTAINMENT LEVE=3

Over all course attainment=0.5xIA attainment+0.5xUR attainment

PO Attainment

PO1=(corresponding cell value in table 2x over all CO attainment)/3

$$\text{PO1 } (3 \times 3)/3=3$$

$$\text{PO2 } (1 \times 3)/3 =1$$

$$\text{PO3 } (0 \times 3)/3= 0$$

$$\text{PO4 } (0 \times 3)/3=0$$

$$\text{PO5 } (3 \times 3)/3= 3$$

Average PO attainment=1.4

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (0X3)/3=0

PSO2 (1X3)/3=1

PSO3 (2X3)/3=2

Average PSO attainment=1

Huzurpaga Mahila Vanijya Mahavidyalaya
FY BBA(CA) Semester II
2021-22 (CBCS) Pattern 2019
Relational Data Base
Course code 204
Credit 3

Teacher Name: Mayuri Padhye

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 204)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
Students will be able CO204.1 To understand concept of RDBMS and Understand various RDBMS products.	Lecture method, , Use of ICT	Assignment Test PPT
CO204.2 Understanding of various programming aspects of PL/SQL, Writing of function, Procedure, triggers, Cursor and Packages;	Lecture method, Practical Demonstration, Use of ICT	Assignment Test PPT
CO204.3 To understand basic transaction processing concepts.	Lecture method , problem solving sessions , Use of ICT	Assignment Test PPT
CO204.4 To learn how to prevent deadlock situation and Data recovery from Various failures with different techniques	Lecture method, Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-204 F.Y.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction to RDBMS Introduction to popular RDBMS product and their features Difference Between DBMS and RDBMS Relationship among application programs and RDBMS	Get the knowledge of the core concept of RDBMS Create tables using SQL DDL and can specify primary key and foreign key constraints.
2	PL/SQL Overview of PLSQL Data Types PLSQL Exception Handling Functions , Procedures Cursor Trigger Package	Students will able to write a program i.e. PL/SQL block that interact with DBMS server. Understand constraints, function, procedure, cursor triggers and packages and how to use them.
3	Transaction Management Transaction Concept Transaction Properties Transaction States Concurrent Execution Serializability	Students understand transactions and their properties (ACID). Understand the concept of serializability.
4	Concurrency control Lock Based Protocol Timestamp Based Protocol	Know the concepts of Lock based protocol and understand locking protocols used to ensure isolation.

	Deadlock Handling Failure Classification Recovery & Atomicity Recovery with concurrent transaction	Understand the concept of Timestamp Based protocol, validation based protocol and deadlock handling. Identifies the recovery management and Understand the recovery with concurrent transaction and transaction rollback.
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Table1

Course Outcome	Course Outcome
CO 204.1	To understand concept of RDBMS and Understand various RDBMS products.
CO 204.2	Understanding of various programming aspects of PL/SQL, Writing of function, Procedure, triggers, Cursor and Packages;
CO 204.3	To understand basic transaction processing concepts
CO 204.4	To learn how to prevent deadlock situation and Data recovery from Various failures with different techniques

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 204.1	3	1	2	1	2
CO 204.2	2	3	2	1	3
CO 204.3	2	2	-	1	2
CO 204.4	3	2	2	1	2
CO 204	2.5	2	1.5	1	2.25

Table 3

CO	PSO1	PSO2	PSO3
CO 204.1	3	1	2
CO 204.2	3	3	3
CO 204.3	3	1	1
CO 204.4	3	1	1
CO 204	3	1.5	1.75

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test2	Target >=40	Tool No 5 Final Exam	Target >=40
		4		6		10		10		70	
1	HARADE MEGHA ANIL	4	Yes	6	Yes	5	Yes	5	Yes	42	Yes
2	NIVJEKAR SAKSHI VINAYAK	4	Yes	6	Yes	3	No	4	Yes	7	No
3	BIBAVE TRUPTI SACHIN	4	Yes	6	Yes	5	Yes	5	Yes	48	Yes
4	BHILARE SAMRUDDHI RAHUL	4	Yes	6	Yes	1	No	3	No	17	No
5	MADACHETTY AVANTIKA RAMESH	4	Yes	6	Yes	1	No	5	Yes	16	No
6	GAIKWAD ANISHA BAJIRAO	4	Yes	6	Yes	4	Yes	3	No	19	No
7	HAGAWANE DNYANESHWARI RAJU	4	Yes	6	Yes	2	No	4	Yes	29	Yes
8	HIRMUKHE AKSHATA PRABHAKAR	4	Yes	6	Yes	4	Yes	5	Yes	29	Yes
9	SALEKAR KETKI ASHOK	4	Yes	6	Yes	6	Yes	5	Yes	20	No
10	MAHAJAN SUKHADA MILIND	4	Yes	6	Yes	3	No	6	Yes	39	Yes
11	SURYAWANSHI VRUSHALI GANESH	4	Yes	6	Yes	4	Yes	5	Yes	37	Yes
12	NAGUL MANASI PRASAD	4	Yes	6	Yes	6	Yes	6	Yes	43	Yes
13	PARDESHI SANIKA SUBHASH	4	Yes	6	Yes	3	No	5	Yes	26	No
14	SURVE VAISHNAVI ANIL	4	Yes	6	Yes	1	No	4	Yes	5	No
15	PANDIT BHAKTI SACHIN	4	Yes	6	Yes	3	No	3	No	8	No
16	THAKAR ANJALI ASHOK	4	Yes	6	Yes	4	Yes	6	Yes	32	Yes
17	KULKARNI DEVASHREE RAM	4	Yes	6	Yes	2	No	AB	NA	8	No
18	KADAM PRADNYA PRASHANT	4	Yes	6	Yes	2	No	AB	NA	2	No
19	PASALKAR DHANSHREE SACHIN	4	Yes	6	Yes	2	No	3	No	19	Yes
20	YASHASHREE VINOD DESHMANE	4	Yes	6	Yes	1	No	1	No	3	No

21	PATHAK ADITEE SATYAJEET	4	Yes	6	Yes	8	Yes	7	Yes	46	Yes
22	JADHAV AKANKSHA UTTAM	4	Yes	6	Yes	8	Yes	7	Yes	59	Yes
23	DUBAL MADHURA NILESH	4	Yes	6	Yes	2	No	AB	NA	39	Yes
24	SHITOLE VAISHNAVI RAMDAS	4	Yes	6	Yes	5	Yes	5	Yes	52	Yes
25	MAHANAVAR ASHWINI GORAKH	4	Yes	6	Yes	6	Yes	6	Yes	46	Yes
26	RANDIVE PRIYANKA HIRALAL	4	Yes	6	Yes	1	No	5	Yes	28	Yes
27	MANE RUTUJA RAHUL	4	Yes	6	Yes	7	Yes	5	Yes	47	Yes
28	BANKAR PAYAL BANDU	4	Yes	6	Yes	4	Yes	3	No	28	Yes
29	LIMHAN SUPRIYA BALU	4	Yes	6	Yes	2	No	4	Yes	24	No
30	RAKSHE MRUNAL SURESH	3	Yes	6	Yes	AB	NA	5	Yes	28	Yes
31	VANNAM SAKSHI BHASKAR	4	Yes	6	Yes	3	No	5	Yes	48	Yes
32	GUJAR RAVINA SADASHIV	4	Yes	6	Yes	7	Yes	6	Yes	52	Yes
33	PHATE MANSI JAGANNATH	4	Yes	6	Yes	3	No	7	Yes	30	Yes
34	PATIL MANSI KHANDOJI	4	Yes	6	Yes	6	Yes	7	Yes	47	Yes
35	SANAS PRANJAL SOPAN	3	Yes	6	Yes	4	Yes	6	Yes	26	No
36	JADHAV PRATIKSHA SANJAY	4	Yes	6	Yes	3	No	AB	NA	9	No
37	AWALE MRUNAL MAHESH	2	Yes	6	Yes	4	Yes	4	Yes	34	Yes
38	GORE SANGITA SITARAM	3	Yes	6	Yes	4	Yes	4	Yes	30	Yes
39	SASWADE ARPITA AVINASH	3	Yes	6	Yes	4	Yes	3	No	32	Yes
40	KURHADE NEHA VIJAY	3	Yes	6	Yes	3	No	3	No	34	Yes
41	JANGAM VAISHNAVI SHRIKANT	4	Yes	6	Yes	4	Yes	5	Yes	33	Yes
42	ZORE PRIYANKA RAMCHANDRA	3	Yes	6	Yes	3	No	3	No	10	No
43	PARGE AAKANKSHA KAILAS	3	Yes	6	Yes	3	No	6	Yes	28	Yes
44	MANDLIK SHARON DILIP	3	Yes	6	Yes	3	No	5	Yes	38	Yes
45	DASA SANJANA NARENDRA	4	Yes	6	Yes	7	Yes	6	Yes	52	Yes
46	PANCHAL ISHIKA SANTOSH	3	Yes	6	Yes	5	Yes	4	Yes	30	Yes

47	HIRMUKHE AASHITA SHREESHAIL	3	Yes	6	Yes	4	Yes	2	No	10	No
48	WALANJ VAIBHAVI ANANTA	3	Yes	6	Yes	3	No	3	No	24	No
49	PALKAR SAKSHI DNYANESHWAR	4	Yes	6	Yes	6	Yes	5	Yes	29	Yes
50	NATKAR AARTI GOKUL	3	Yes	6	Yes	2	No	5	Yes	34	Yes
51	NAIK VRUSHALI BHARAT	3	Yes	6	Yes	5	Yes	5	Yes	45	Yes
52	SUPEKAR ANILA NITIN	4	Yes	6	Yes	3	No	AB	NA	28	Yes
53	MUTHA RAKSHITA SANJAY	4	Yes	6	Yes	3	No	7	Yes	42	Yes
54	OVHAL MANSI DASHARATH	3	Yes	6	Yes	3	No	5	Yes	41	Yes
55	JADHAV PRIYANKA BABU	3	Yes	6	Yes	3	No	6	Yes	13	No
56	WARANKAR ADITI ANIL	4	Yes	6	Yes	7	Yes	7	Yes	41	Yes
57	KAMBLE SHRUTI	4	Yes	6	Yes	2	No	5	Yes	23	No

1 Tool No 1 Presentation

Yes= 57 No=00 NA=00

Total No. of Yes/Total No. of Students

57/57

1

2 Tool No 2 Assignments

Yes= 57 No=00 NA=00

Total No. of Yes/Total No. of Students

57/57

1

3 Tool No 3 Test1

Yes=27 No=29 NA=01

Total No. of Yes/Total No. of Students

27/57

0.47

4 Tool No 4 Test2

Yes= 41 No=11 NA=05

Total No. of Yes/Total No. of Students

41/57

0.71

5 Tool No 5 Final Exam

Yes= 39 No=18 NA=00

Total No. of Yes/Total No. of Students

39/57

0.68

Internal Average Assessment=Presentation+Assignment+Test1+Test2

$(1+1+0.47+0.71)/4=3.18/4=0.79$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.79 =
ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT
AVERAGE ATTAINMENT VALUE IS 0.68 =
ATTAINMENT LEVEL= 3

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 $(2.5 \times 3)/3=2.5$

PO2 $(2 \times 3)/3 =2$

PO3 $(1.5 \times 3)/3= 1.5$

PO4 $(1 \times 3)/3=1$

PO5 $(2.25 \times 3)/3= 2.25$

Average PO attainment=1.85

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1- $(3 \times 3)/3=3$

$$\text{PSO2}-(1.5 \times 3)/3=1.5$$

$$\text{PSO3}-(1.75 \times 3)/3=1.75$$

$$\text{Average PSO attainment}=2.08$$

Huzurpaga Mahila Vanijya Mahavidyalaya
BBA(CA) 2021-22
FYBBA(CA) Semester II (CBCS) Pattern 2019
Subject: Web Technology (HTML-JSS-CSS)
Course code 205
Credit 3

Teacher Name: Archana Thorat

Program Outcome (POs)

After successfully completing BBA(CA) Programme students will be able to:

PO1	To provide the students with the conceptual knowledge and understanding of the fundamental in the domain of Computers, Mathematics, Commerce and Management.
PO2	To acquire practical skills along with the hands-on experience on emerging technologies among students.
PO3	To sharpen the application, analytical and decision making skill of the students and make use cyber security in the computing fields.
PO4	To develop entrepreneurship, communication and managerial skills in students.
PO5	To develop a sound academic base for students, to advance their career in Computer Applications.

Program Specific Outcomes (PSOs)

After successfully completing BBA(C.A.) Programme students will be able to:

PSO1	Knowledge of computers, Operating system, Networking, Programming Language, Database concept and electronic commerce.
PSO2	Students will get well knowledge of design, testing, implementation and deployment of Window based and Web Applications and latest trends in technology.
PSO3	Blending of Computer, Commerce and Management gives keen knowledge of all three disciplines to provide wide area of job opportunities for the students.

Course Outcomes: (CO 205)

Learning Outcomes	Teaching learning strategies /Activities	Assessment tasks/tools
CO205.1 Students will be able understand Clients- Servers and Communication, internet basics	Lecture method, Practical Use of ICT	Assignment Test PPT
CO205.2 Learn Concepts of effective web design	Lecture method, Practical Use of ICT	Assignment Test PPT
CO205.3 To learn basic HTML Structure	Lecture method , Practical Use of ICT	Assignment Test PPT
CO205.4 Understand Style sheet, basic syntax and structure of CSS	Lecture method, Practical Use of ICT	Assignment Test PPT
CO205.5 Learn JavaScript and DOM Object	Lecture method, Practical, Use of ICT	Assignment Test PPT

Course Specific Outcomes:

Unit	Course Cs-205 SY.BBA(CA) Course	Specific Outcomes: CSO
1	Introduction 1.1 Clients- Servers and Communication 1.2 Internet-Basic, Internet Protocols (HTTP, FTP, IP) 1.3 World Wide Web(WWW) 1.4 HTTP request message, HTTP response message	Helps the students to get to Know about client -server Concept and Understanding what is Internet .
2	Web Design 2.1 Concepts of effective web design 2.2 Web design issues including Browser Bandwidth and Cache 2.3 Display resolution 2.4 Look and Feel of the Website 2.5 Page Layout and linking 2.6 User centric design 2.7 Sitemap 2.8 Planning and publishing website 2.9 Designing effective navigation	Students get the knowledge of effective web design.
3	HTML 3.1 Introduction to HTML 3.2 Basic HTML Structure 3.3 Common HTML Tags 3.4 Physical and Logical HTML 3.5 Types of Images, client side and server-side Image mapping 3.6 List, Table, Frames 3.7 Embedding Audio, Video 3.8 HTML form and form elements 3.9 Introduction to HTML Front Page	Students get the knowledge of HTML Structure, Common HTML Tags
4	Style sheets 4.1 Need for CSS 4.2 Introduction to CSS 4.3 Basic syntax and structure 4.4 Using CSS4.4.1 background images, colors and properties, 4.4.2	Give the detail description on CSS

	manipulating texts, using fonts, borders and boxes, margins, padding lists, positioning using CSS 4.5 Overview and features of CSS2 and CSS3	
5	JavaScript 5.1 Introduction to Java Script 5.2 Identifier & operator, control structure, functions 5.3 Document object model(DOM), 5.4 DOM Objects (window, navigator, history, location) 5.5 Predefined functions, math & string functions 5.6 Array in Java scripts 5.7 Event handling in Java script	Students are able to understand the concept of Java Script, Document object model(DOM)

Table1

Course Outcome	Course Outcome
CO 205.1	Students will be able understand Clients- Servers and Communication, internet basics
CO 205.2	Learn Concepts of effective web design
CO 205.3	To learn basic HTML Structure
CO 205.4	Understand Style sheet, basic syntax and structure of CSS
CO 205.5	Learn JavaScript and DOM Object

Table 2

CO	PO1	PO2	PO3	PO4	PO5
CO 205.1	3	3	3	2	3
CO 205.2	3	3	3	2	3
CO 205.3	3	3	3	2	3
CO 205.4	3	3	3	2	3
CO 205.5	3	3	3	2	3
CO 205	3	3	3	2	3

Table 3

CO	PSO1	PSO2	PSO3
CO 205.1	3	2	3
CO 205.2	3	2	3
CO 205.3	3	2	3
CO 205.4	3	2	3

CO 205.5	3	2	3
CO 205	3	2	3

Sr no	Name Of Students	Tool No 1 Presentation	Target >=40	Tool No 2 Assignments	Target >=40	Tool No 3 Test 1	Target >=40	Tool No 4 Test 2	Target >=40	Tool No 5 Final Exam	Target >=40
1	HARADE MEGHA ANIL	4	Yes	6	Yes	5	Yes	9	Yes	56	Yes
2	NIVJEKAR SAKSHI VINAYAK	4	Yes	6	Yes	5	Yes	4	Yes	21	No
3	BIBAVE TRUPTI SACHIN	4	Yes	6	Yes	6	Yes	5	Yes	32	Yes
4	BHILARE SAMRUDDHI RAHUL	4	Yes	6	Yes	3	Yes	3	No	24	No
5	MADACHETTY AVANTIKA RAMESH	4	Yes	6	Yes	5	Yes	3	No	18	No
6	GAIKWAD ANISHA BAJIRAO	4	Yes	6	Yes	7	Yes	5	Yes	43	Yes
7	HAGAWANE DNYANESHWARI RAJU	4	Yes	6	Yes	4	Yes	2	No	29	Yes
8	HIRMUKHE AKSHATA PRABHAKAR	4	Yes	6	Yes	4	Yes	2	No	26	No
9	SALEKAR KETKI ASHOK	4	Yes	6	Yes	5	Yes	3	No	25	No
10	MAHAJAN SUKHADA MILIND	4	Yes	6	Yes	5	Yes	5	Yes	44	Yes
11	SURYAWANSHI VRUSHALI GANESH	4	Yes	6	Yes	5	Yes	4	Yes	21	No
12	NAGUL MANASI PRASAD	4	Yes	6	Yes	7	Yes	5	Yes	53	Yes
13	PARDESHI SANIKA SUBHASH	4	Yes	6	Yes	5	Yes	2	No	23	No
14	SURVE VAISHNAVI ANIL	4	Yes	6	Yes	2	No	2	No	16	No
15	PANDIT BHAKTI SACHIN	4	Yes	6	Yes	3	No	2	No	14	No
16	THAKAR ANJALI ASHOK	4	Yes	6	Yes	7	Yes	6	Yes	33	Yes
17	KULKARNI DEVASHREE RAM	4	Yes	6	Yes	4	Yes	1	No	6	No
18	KADAM PRADNYA PRASHANT	4	Yes	6	Yes	4	Yes	AB	NA	2	No
19	PASALKAR DHANSHREE SACHIN	4	Yes	6	Yes	5	Yes	3	No	18	No
20	YASHASHREE VINOD DESHMANE	4	Yes	6	Yes	4	Yes	1	No	0	No

21	PATHAK ADITEE SATYAJEET	4	Yes	6	Yes	7	Yes	8	Yes	42	Yes
22	JADHAV AKANKSHA UTTAM	4	Yes	6	Yes	7	Yes	7	Yes	56	Yes
23	DUBAL MADHURA NILESH	4	Yes	6	Yes	5	Yes	AB	NA	42	Yes
24	SHITOLE VAISHNAVI RAMDAS	4	Yes	6	Yes	7	Yes	8	Yes	48	Yes
25	MAHANAVAR ASHWINI GORAKH	4	Yes	6	Yes	6	Yes	9	Yes	35	Yes
26	RANDIVE PRIYANKA HIRALAL	4	Yes	6	Yes	2	No	AB	NA	32	Yes
27	MANE RUTUJA RAHUL	4	Yes	6	Yes	7	Yes	6	Yes	37	Yes
28	BANKAR PAYAL BANDU	4	Yes	6	Yes	5	Yes	4	Yes	28	Yes
29	LIMHAN SUPRIYA BALU	4	Yes	6	Yes	5	Yes	6	Yes	19	No
30	RAKSHE MRUNAL SURESH	4	Yes	6	Yes	AB	NA	3	No	33	Yes
31	VANNAM SAKSHI BHASKAR	4	Yes	6	Yes	5	Yes	6	Yes	33	Yes
32	GUJAR RAVINA SADASHIV	4	Yes	6	Yes	8	Yes	8	Yes	40	Yes
33	PHATE MANSI JAGANNATH	4	Yes	6	Yes	7	Yes	5	Yes	38	Yes
34	PATIL MANSI KHANDOJI	4	Yes	6	Yes	8	Yes	7	Yes	48	Yes
35	SANAS PRANJAL SOPAN	4	Yes	6	Yes	5	Yes	5	Yes	25	No
36	JADHAV PRATIKSHA SANJAY	4	Yes	6	Yes	5	Yes	AB	NA	21	No
37	AWALE MRUNAL MAHESH	4	Yes	6	Yes	5	Yes	5	Yes	31	Yes
38	GORE SANGITA SITARAM	4	Yes	6	Yes	5	Yes	3	No	26	No
39	SASWADE ARPITA AVINASH	4	Yes	6	Yes	4	Yes	4	Yes	23	No
40	KURHADE NEHA VIJAY	4	Yes	6	Yes	4	Yes	5	Yes	21	No
41	JANGAM VAISHNAVI SHRIKANT	4	Yes	6	Yes	5	Yes	7	Yes	37	Yes
42	ZORE PRIYANKA RAMCHANDRA	4	Yes	6	Yes	6	Yes	6	Yes	20	No
43	PARGE AAKANKSHA KAILAS	4	Yes	6	Yes	3	No	4	Yes	25	No
44	MANDLIK SHARON DILIP	4	Yes	6	Yes	5	Yes	4	Yes	28	Yes
45	DASA SANJANA NARENDRA	4	Yes	6	Yes	6	Yes	6	Yes	42	Yes
46	PANCHAL ISHIKA SANTOSH	4	Yes	6	Yes	6	Yes	3	No	28	Yes

47	HIRMUKHE AASHITA SHREESHAIL	4	Yes	6	Yes	5	Yes	3	No	18	No
48	WALANJ VAIBHAVI ANANT	4	Yes	6	Yes	5	Yes	3	No	22	No
49	PALKAR SAKSHI DNYANESHWAR	4	Yes	6	Yes	6	Yes	3	No	21	No
50	NATKAR AARTI GOKUL	4	Yes	6	Yes	3	No	4	Yes	23	No
51	NAIK VRUSHALI BHARAT	4	Yes	6	Yes	7	Yes	5	Yes	43	Yes
52	SUPEKAR ANILA NITIN	3	Yes	6	Yes	5	Yes	AB	NA	18	No
53	MUTHA RAKSHITA SANJAY	4	Yes	6	Yes	9	Yes	7	Yes	47	Yes
54	OVHAL MANSI DASHARATH	4	Yes	6	Yes	6	Yes	4	Yes	28	Yes
55	JADHAV PRIYANKA BABU	4	Yes	6	Yes	5	Yes	6	Yes	19	No
56	WARANKAR ADITI ANIL	4	Yes	6	Yes	9	Yes	7	Yes	52	Yes
57	KAMBLE SHRUTI PARSHURAM	4	Yes	6	Yes	4	Yes	4	Yes	24	No

Tool No 1 Presentation

Yes= 57 No=00 NA=00

Total No. of Yes/Total No. of Students

57/57

1

Tool No 2 Assignments

Yes= 57 No=00 NA=00

Total No. of Yes/Total No. of Students

57/57

1

Tool No 3 Test1

Yes= 51 No=05 NA=01

Total No. of Yes/Total No. of Students

51/57

0.89

Tool No 4 Test2

Yes= 36 No=16 NA=05

Total No. of Yes/Total No. of Students

36/57

0.63

Tool No 5 Final Exam

Yes= 29 No=28 NA=00

Total No. of Yes/Total No. of Students

29/57

0.5

Internal Average

Assessment=Presentation+Assignment+Test1+Test2

$(1+1+0.89+0.63)/4=3.57/4=0.89$

0 To 0.40	1
0.41 To 0.60	2
0.61 To 1.00	3

AVERAGE ATTAINMENT VALUE IS 0.89 = ATTAINMENT LEVEL= 3

EXTERNAL AVERAGE ATTAINMENT
AVERAGE ATTAINMENT VALUE IS 0.50 = ATTAINMENT LEVEL= 2

Overall course Attainment= $0.5 \times 1A$ attainment+ $0.5 \times UR$ attainment

Overall course Attainment= $0.5 \times 3 + 0.5 \times 3$ Overall course Attainment= 3

PO Attainment

PO1=(corresponding cell value in table 2 X Overall CO attainment value) /3

PO1 (3X3)/3=3

PO2 (3X 3)/3 =3

PO3 (3 X 3)/3= 3

PO4 (2X3)/3=2

PO5 (3 X 3)/3= 3

Average PO attainment=2.8

PSO Attainment

PSO1=(corresponding cell value in table 3 X Overall CO attainment value)/3

PSO1 (3X3)/3=3

PSO2 (2X3)/3=2