

<b>Academic Year</b>	<b>2020-21</b>
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**B.P.H.E. Society's  
Ahmednagar College, Ahmednagar  
Internal Quality Assurance Cell  
CO, PO, and PSO Attainment Sheet**

<b>Department Name</b>	<b>Computer Science</b>
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<b>Program Name</b>	<b>BBA CA</b>
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<b>Program Outcomes(PO)</b>
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<b>PO1</b>	To produce skill oriented human resource.
<b>PO2</b>	To impart practical skills among students.
<b>PO3</b>	To make industry ready resource.
<b>PO4</b>	To bring the spirit of entrepreneurship.
<b>PO5</b>	To give students an solid academic basis on which to build a successful career in computer applications.
<b>PO6</b>	To give conceptual foundation for computer use and actual commercial application.
<b>PO7</b>	
<b>PO8</b>	
<b>PO9</b>	
<b>PO10</b>	
<b>PO11</b>	
<b>PO12</b>	

<b>Program Specific Outcome(PSO)</b>
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<b>PSO1</b>	methods and techniques in open-ended programming environments to create high-quality products that will help businesses succeed whi
<b>PSO2</b>	learn about design and control strategies, information security approaches, and how to adapt to the rapidly changing needs of the inform
<b>PSO3</b>	students should be able to apply management and recent trends in the commerce match the industry and market requirement

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Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-101			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Business Communication		CO1	3	3	2	1	2	1	2	1	2
Semester No	1		CO2	3	3	2	1	1	3	2	1	3
Teacher Name	Poornima Behere		CO3	3	2	3	3	1	2	3	2	3
Course Outcomes			CO4	3	2	3	2	3	2	2	2	2
	CO1	To understand what is the role of communication in personal and business world	CO5									
	CO2	To understand system and communication and their utility	Average	3.00	2.50	2.50	1.75	1.75	2.00	2.25	1.50	2.50
	CO3	To develop proficiency in how to write business letters and other communications in required Business										
	CO4	To equip the students with necessary communication skills for recruitment process										
	CO5											

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-102			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Principles of Management		CO1	3	2	3	2	3	2	1	2	3
Semester No	1		CO2	2	3	3	3	3	3	1	2	3
Teacher Name	Sayyed Ayeshah		CO3	3	3	2	3	2	3	1	1	3
Course Outcomes			CO4	3	3	2	2	3	3	1	1	3
	CO1	To understand basic concept regarding org. Business Administration	CO5									
	CO2	To examining how various management principles	Average	2.75	2.75	2.50	2.50	2.75	2.75	1.00	1.50	3.00
	CO3	To develop managerial skills among the students										
	CO4	To apply the managerial functions in different business setup										
	CO5											

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-103			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	C Language		CO1	3	3	2	1	3	3	3	3	2
Semester No	1		CO2	2	2	2	1	3	3	3	3	2
Teacher Name	karishma Rajpal		CO3	3	2	3	1	3	3	3	3	1
Course Outcomes			CO4	3	3	3	1	3	3	3	3	2
	CO1	To understand the concept of Procedural Programming	CO5									
	CO2	To acquire basic programming skills using C Programming Language	Average	2.75	2.50	2.50	1.00	3.00	3.00	3.00	3.00	1.75
	CO3	To make students easily switch over to any other language in future										
	CO4	Students will Improve logical thinking through practical knowledge of C Programming										
	CO5											

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-104			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Database Management System		CO1	3	2	3	1	2	3	3	3	2
Semester No	1		CO2	3	3	3	1	2	3	3	3	2
Teacher Name	Ujjwala Sawant		CO3	3	3	3	1	3	3	3	3	1
Course Outcomes			CO4	3	3	3	1	3	3	3	3	1
	CO1	To develop skills related with Database basic Concepts.	CO5									
	CO2	To understand role and importance File Structures and Organization	Average	3.00	2.75	3.00	1.00	2.50	3.00	3.00	3.00	1.50
	CO3	To Learn about Relational Database Designing.										
	CO4	To Develop right understanding of various Data models										
	CO5											

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-105			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Statstics		CO1	3	3	2	1	3	2	3	1	1
Semester No	1		CO2	3	3	2	1	2	2	3	2	2
Teacher Name	SNEHAL SHINDE		CO3	2	2	2	2	2	2	2	1	2
Course Outcomes			CO4									
	CO1	To understand role and importance of statistics in various business situations	CO5									

	CO2	To develop skills related with basic statistical technique	Average	2.67	2.67	2.00	1.33	2.33	2.00	2.67	1.33	1.67
	CO3	Develop right understanding regarding regression, correlation and data interpretation										
	CO4											
	CO5											

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-106			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Computer laboratry based on 103-104		CO1	3	3	2	1	2	3	3	3	2
Semester No	1		CO2	3	3	3	1	3	3	3	3	1
Teacher Name	karishma Rajpal & Ujjwala Sawant		CO3	3	3	3	1	3	3	3	3	1
Course Outcomes			CO4	3	3	2	1	2	3	3	3	2
	CO1	To assess the knowledge of student in C and DBMS	CO5									
	CO2	To make students proficient in application of theory into the practical	Average	3.00	3.00	2.50	1.00	2.50	3.00	3.00	3.00	1.50
	CO3	To acquire knowledge on writing computer programs using C Language										
	CO4	To create and manage Database using SQL										
	CO5											

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-017			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Add-On (PPA)		CO1	3	3	2	1	3	3	3	2	1
Semester No	1		CO2	3	3	3	1	2	3	3	3	1
Teacher Name	Mrs.Madhavi Dethe		CO3	3	3	3	1	2	3	2	3	1
Course Outcomes			CO4									
	CO1	To know the fundamentals of programming and designing.	CO5									
	CO2	To learn the algorithm analysis and notations	Average	3.00	3.00	2.67	1.00	2.33	3.00	2.67	2.67	1.00
	CO3	To understand the concept, problem and algorithm										
	CO4											
	CO5											

Class	FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
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Subject Code	CA-201	Course Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Organization Behavior & Human Resource Management	CO1	3	2	2	3	1	1	2	1	3
Semester No	2	CO2	3	2	3	3	1	1	1	1	3
Teacher Name	Sayyed Ayesah	CO3	3	2	3	3	1	1	1	1	3
Course Outcomes		CO4	2	3	2	3	1	2	2	1	3
	CO1	To understand basic concept of HRM & OB	CO5	2	3	2	3	1	1	2	3
	CO2	To make aware students about traditional & modern methods of procurement & development in organization.	Average	2.60	2.40	2.40	3.00	1.00	1.20	1.60	3.00
	CO3	To know the major trends in HRM & OB									
	CO4	To make aware students about the recruitment and selection process for future									
	CO5	To make students undersatnd modern HRM processes									

Class	FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-202		PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Financial Accounting	CO1	3	2	2	2	1	1	2	1	3
Semester No	2	CO2	3	3	2	3	1	1	2	1	3
Teacher Name	Sayyed Ayesah	CO3	3	2	2	2	1	2	1	2	2
Course Outcomes		CO4	2	3	2	3	1	2	2	2	3
	CO1	To develop right understanding regarding role and importance of monetary and financial transactions in business	CO5								
	CO2	To make the students understand the basic concept of finacial accounting	Average	2.75	2.50	2.00	2.50	1.00	1.50	1.75	2.75
	CO3	To cultivate right approach towards classifications of different transactions and their implications									
	CO4	To develop proficiency preparation of basic financial as to how to write basis accounting statement - Trading and P&L									
	CO5										

Class	FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-203		PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Business Mathematics	CO1	3	2	3	1	1	2	2	2	2
Semester No	2	CO2	3	3	2	1	1	2	2	2	2
Teacher Name	Namrata Mahankale	CO3									
Course Outcomes		CO4									

	CO1	To understand role and importance of Mathematics in various business situations and while developing softwares.	CO5									
	CO2	To develop skills related with basic mathematical technique	Average	3.00	2.50	2.50	1.00	1.00	2.00	2.00	2.00	2.00
	CO3											
	CO4											
	CO5											

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-204			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Rational Database		CO1	3	3	2	1	3	3	3	3	2
Semester No	2		CO2	3	3	2	1	3	2	3	3	2
Teacher Name	Madhvi Dethe		CO3	2	3	3	1	3	3	3	3	1
Course Outcomes			CO4	3	3	3	1	3	3	3	3	1
	CO1	Enables students to understand relational database concepts and transaction management concepts in database system.	CO5	3	3	3	1	3	2	3	3	1
	CO2	Enables student to write PL/SQL programs that use: procedure, function, package, cursor and trigger.	Average	2.80	3.00	2.60	1.00	3.00	2.60	3.00	3.00	1.40
	CO3	Enables students to understand transaction management concepts in database system.										
	CO4	To Understand SQL/PLSQL the programming language of oracle										
	CO5	Get Fundamental Knowledge of subject in Brief along with Software.										

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-205			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Web Technology HTML-JS-CSS		CO1	3	2	3	1	3	3	3	3	2
Semester No	2		CO2	3	3	2	1	3	2	3	3	1
Teacher Name	Shaikh Shaheen		CO3									
Course Outcomes			CO4									
	CO1	To know & understand concepts of internet programming.	CO5									
	CO2	To know & understand concepts of internet programming.	Average	3.00	2.50	2.50	1.00	3.00	2.50	3.00	3.00	1.50
	CO3											
	CO4											
	CO5											

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-206			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Computer Laboratory based on 204-205		CO1	3	2	3	1	3	3	3	3	2
Semester No	2		CO2	3	2	3	1	3	2	3	3	1
Teacher Name	Madhvi Dethe, Shaheen Shaikh		CO3	2	3	2	1	3	3	3	3	1
Course Outcomes			CO4									
	CO1	To assess the knowledge of student in RDBMS and Web Technology	CO5									
	CO2	To acquire knowledge on writing computer programs using concept of Web Technology	Average	2.67	2.33	2.67	1.00	3.00	2.67	3.00	3.00	1.33
	CO3	To create and manage Database using concept of RDBMS										
	CO4											
	CO5											

Class		FY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-207			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Add-on (Advance C)		CO1	3	2	3	1	3	3	3	3	2
Semester No	2		CO2	3	3	3	1	3	3	3	3	2
Teacher Name	Madhuri Sasane		CO3									
Course Outcomes			CO4									
	CO1	To understand code organization with complex data types and structures.	CO5									
	CO2	To work with files.	Average	3.00	2.50	3.00	1.00	3.00	3.00	3.00	3.00	2.00
	CO3											
	CO4											
	CO5											

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Class		SY BBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-301			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	DIGITAL MARKETING		CO1	3	2	2	2	2	1	2	2	1
Semester No	III		CO2	3	2	2	3	2	2	3	1	1
Teacher Name	AYESHA SAYYED		CO3									
Course Outcomes			CO4									
	CO1	Students will be able to understand the new digital market and its terminology	CO5									
	CO2	Students will get greatest benefit of Digital marketing which will allow to target the ideal buyer,through social media or with any digital platform	Average	3.00	2.00	2.00	2.50	2.00	1.50	2.50	1.50	1.00
	CO3											
	CO4											
	CO5											

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-302			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	DATA STRUCTURE		CO1	3	3	3	2	3	3	3	2	2
Semester No	III		CO2	3	3	3	3	3	3	3	2	1
Teacher Name	MADHAVI DETHE		CO3	3	3	3	3	3	3	3	3	3
Course Outcomes			CO4	2	2	2	2	2	2	2	2	3
	CO1	Students will be able to understand the concepts of ADTs and linear data structures-lists,stacks,queues	CO5									
	CO2	Students will be able to understand the sorting,searchingand hashing algorithmsand applytree and graph structures.	Average	2.75	2.75	2.75	2.50	2.75	2.75	2.75	2.25	2.25
	CO3	To learn linear data structures - list,stack and queue										
	CO4	To apply Tree and Graph structures										
	CO5											



Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-303			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	SOFTWARE ENGINEERING		CO1	3	2	3	3	3	2	3	2	3
Semester No	III		CO2	2	2	3	2	1	2	2	2	3
Teacher Name	UJWALA KALE		CO3									
Course Outcomes			CO4									
	CO1	Students will be able to understand the system concepts and learn software engineering concepts	CO5									
	CO2	Students will be able to understand the applications of software engineering concepts and design in software development	Average	2.50	2.00	3.00	2.50	2.00	2.00	2.50	2.00	3.00
	CO3											
	CO4											
	CO5											

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-304			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	ANGULAR JS		CO1	3	2	2	3	3	3	3	3	2
Semester No	III		CO2									
Teacher Name	SANIYA SHAIKH		CO3									
Course Outcomes			CO4									
	CO1	It empowers developers to build rich internet applications	CO5									
	CO2		Average	3.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	2.00
	CO3											
	CO4											
	CO5											

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-305			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	BIG DATA		CO1	2	2	3	2	2	3	2	2	3
Semester No	III		CO2	3	2	2	3	1	3	3	3	2
Teacher Name	SONALI ADHAV		CO3	2	1	3	2	2	3	1	2	2
Course Outcomes			CO4									

	CO1	Students understand and are able to develop analytical skills in current an developing areas of analysis statistics and machine learning	CO5									
	CO2	Students can be able to identify,develop and apply detailed analytical,creative,problem solving skills	Average	2.33	1.67	2.67	2.33	1.67	3.00	2.00	2.33	2.33
	CO3	Course provides a comprehensive platform for career development and innovation to the students										
	CO4											
	CO5											

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-306			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	COMPUTER LABORATORY BASED ON CA 302,CA 304 AND CA 305		CO1	3	3	3	2	2	2	3	2	3
Semester No	III		CO2	3	3	2	2	3	3	3	3	2
Teacher Name	SANIYA SHAIKH, SONALI ADHAV		CO3	2	2	3	3	2	2	2	2	2
Course Outcomes			CO4									
	CO1	To understand different methods of organising large amounts of data	CO5									
	CO2	To efficiently implement different data structures	Average	2.67	2.67	2.67	2.33	2.33	2.33	2.67	2.33	2.33
	CO3	empowers developers to build rich internet applications										
	CO4											
	CO5											

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA 401			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	NETWORKING		CO1	2	1	2	2	2	3	3	2	2
Semester No	IV		CO2	1	2	1	1	2	2	3	2	1
Teacher Name	NIVEDITA WAGHMARE		CO3	2	2	1	1	2	2	1	1	1
Course Outcomes			CO4									
	CO1	To gain knowledge of computer network concepts	CO5									
	CO2	To know about working on networking models, addresses,transmission media and connectivity devices	Average	1.67	1.67	1.33	1.33	2.00	2.33	2.33	1.67	1.33
	CO3	To acquire information about network security and cryptography										
	CO4											
	CO5											

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA 402			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	OBJECT ORIENTED CONCEPTS THROUGH CPP		CO1	3	2	3	3	2	3	3	2	3
Semester No	IV		CO2	2	3	3	3	3	3	2	2	1
Teacher Name	NAINA KHANCHANDANI		CO3									
Course Outcomes			CO4									
	CO1	To understand the basic concepts of object oriented concepts and issues involved in effective class design	CO5									
	CO2	To enable students to write programs using C++ features like operator overloading, constructor and destructor , inheritance, polymorphism and exception handling	Average	2.50	2.50	3.00	3.00	2.50	3.00	2.50	2.00	2.00
	CO3											
	CO4											
	CO5											

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA 403			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	OPERATING SYSTEM		CO1	1	2	1	1	2	3	1	2	1
Semester No	IV		CO2	2	1	2	1	2	2	2	1	1
Teacher Name	KARISHMA RAJPAL		CO3	2	2	1	1	1	2	1	1	1
Course Outcomes			CO4	2	1	1	2	2	2	2	2	1
	CO1	To know the services provided by Operating System	CO5									
	CO2	To know the scheduling concept	Average	1.75	1.50	1.25	1.25	1.75	2.25	1.50	1.50	1.00
	CO3	To understand design issues related to memory management and various related algorithms										
	CO4	To understand design issues related to File management and various related algorithms										
	CO5											

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA 404			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	NODE JS		CO1	2	2	3	3	3	3	2	2	3
Semester No	IV		CO2	3	3	2	3	3	3	2	3	3
Teacher Name	SANIYA SHAIKH		CO3	2	1	1	3	3	3	1	2	1
Course Outcomes			CO4									
	CO1	Understand the JavaScript and technical concepts behind Node JS	CO5									
	CO2	Structure a Node application in modules	Average	2.33	2.00	2.00	3.00	3.00	3.00	1.67	2.33	2.33

	CO3	Understand and use the Event Emitter ☐ Understand Buffers, Streams, and
	CO4	
	CO5	

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA 405			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	PROJECT		CO1	3	2	2	3	1	3	2	1	1
Semester No	IV		CO2	2	2	1	3	2	3	1	2	2
Teacher Name	SONALI AVHAD		CO3	2	3	2	3	3	3	1	1	1
Course Outcomes			CO4									
	CO1	To develop a software for a given problem domain	CO5									
	CO2	To document the project development cycle	Average	2.33	2.33	1.67	3.00	2.00	3.00	1.33	1.33	1.33
	CO3	To work as a team member for the software project completion										
	CO4											
	CO5											

Class		SY BBACA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA 406			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	COMPUTER LABORATORY BASED ON CA 402,CA 404		CO1	3	3	3	3	3	3	3	3	3
Semester No	IV		CO2	2	2	2	3	3	3	3	2	3
Teacher Name	NAINA KHANCHANDANI,SANIYA SHAIKH		CO3	3	3	3	3	3	3	3	3	2
Course Outcomes			CO4									
	CO1	To solve basic programs on class and objects	CO5									
	CO2	To understand function overloading and use the concept to solve the programs	Average	2.67	2.67	2.67	3.00	3.00	3.00	3.00	2.67	2.67
	CO3	Understand and use the Event Emitter ☐ Understand Buffers, Streams, and										
	CO4											
	CO5											

Class		SYBBA CA	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA 407			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Jquery		CO1	1	1	1	1	1	1	1	1	1
Semester No	IV		CO2									

Teacher Name		MADHAVI DETHE	CO3									
Course Outcomes			CO4									
	CO1	To get hands-on experience on JavaScript and jQuery	CO5									
	CO2		Average	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	CO3											
	CO4											
	CO5											

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Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-501			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	JAVA PROGRAMMING		CO1	3	3	3	3	3	3	2	3	2
Semester No	V		CO2	3	2	3	2	3	3	3	2	1
Teacher Name	Mrs. Suvrana Pardeshi		CO3									
Course Outcomes			CO4									
	CO1	To learn the basic concept of Java Programming	CO5									
	CO2	To understand how to use programming in day to day applications.	Average	3.00	2.50	3.00	2.50	3.00	3.00	2.50	2.50	1.50
	CO3											
	CO4											
	CO5											

Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-502			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	WEB TECHNOLOGIES		CO1	2	1	2	3	1	1	2	2	3
Semester No	V		CO2	1	0	1	2	3	3	1	3	2
Teacher Name	PATEL SANA		CO3									
Course Outcomes			CO4									
	CO1	To know & understand concepts of internet programming.	CO5									
	CO2	To understand how to develop web based applications using PHP.	Average	1.50	0.50	1.50	2.50	2.00	2.00	1.50	2.50	2.50
	CO3											
	CO4											
	CO5											

Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-503			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	DOT NET PROGRAMMING		CO1	1	2	2	2	3	2	2	2	2

Semester No	V	CO2	2	1	2	3	2	2	2	3	2
Teacher Name	DHONE SAYALI	CO3									
Course Outcomes		CO4									
	CO1	This will introduce visual programming and event driven programming practically.									
	CO2	This will enhance applications development skill of the student.									
	CO3										
	CO4										
	CO5										
		Average	1.50	1.50	2.00	2.50	2.50	2.00	2.00	2.50	2.00

Class	TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-504		PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	OOSE	CO1	2	3	2	3	3	3	2	3	2
Semester No	V	CO2	2	2	3	3	2	3	3	2	3
Teacher Name	AWATE S.A.	CO3									
Course Outcomes		CO4									
	CO1	To Understand concept of system design using UML.									
	CO2	To understand system development through object oriented techniques.									
	CO3										
	CO4										
	CO5										
		Average	2.00	2.50	2.50	3.00	2.50	3.00	2.50	2.50	2.50

Class	TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-505		PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Software Project – I [Based on C++ / VB Technology]	CO1	3	2	3	3	3	3	3	2	3
Semester No	V	CO2	3	3	3	3	3	2	3	3	3
Teacher Name	AWATE S.A	CO3									
Course Outcomes		CO4									
	CO1	To know & understand concepts of internet programming.									
	CO2	To understand the concepts of XML and AJAX.									
	CO3										
	CO4										
	CO5										
		Average	3.00	2.50	3.00	3.00	3.00	2.50	3.00	2.50	3.00

Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-506			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Laboratory Course – V [Based on Paper No. 501 & 502 ]		CO1	3	3	3	3	3	3	3	3	2
Semester No	V		CO2	3	3	3	3	2	2	3	3	2
Teacher Name	DHONE SAYALI & DETHE MADHAVI		CO3	3	2	3	3	3	3	2	3	3
Course Outcomes			CO4									
	CO1	To know software development using JAVA	CO5									
	CO2	To study documentation,reports making	Average	3.00	2.67	3.00	3.00	2.67	2.67	2.67	3.00	2.33
	CO3	To create web based applications using WEB TECH.										
	CO4											
	CO5											

Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-601			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Advanced Web Technologies		CO1	2	2	2	2	3	2	3	3	1
Semester No	VI		CO2	2	2	1	2	2	2	2	3	2
Teacher Name	Prachi Walunjkar		CO3									
Course Outcomes			CO4									
	CO1	To know & understand concepts of internet programming.	CO5									
	CO2	To understand the concepts of XML and AJAX.	Average	2.00	2.00	1.50	2.00	2.50	2.00	2.50	3.00	1.50
	CO3											
	CO4											
	CO5											

Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-602			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Advanced Java		CO1	3	3	3	3	3	3	3	3	3
Semester No	VI		CO2	2	2	2	3	3	2	3	2	3
Teacher Name	DETHE MADHAVI		CO3	3	2	2	2	3	3	3	3	3
Course Outcomes			CO4									
	CO1	To know the concept of Java Programming.	CO5									
	CO2	To understand how to use programming in day to day applications.	Average	2.67	2.33	2.33	2.67	3.00	2.67	3.00	2.67	3.00
	CO3	To develop programming logic.										
	CO4											
	CO5											



Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-603			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	RECENT TRENDS IN IT		CO1	2	3	2	2	3	3	3	3	2
Semester No	VI		CO2	1	2	3	2	2	2	2	2	1
Teacher Name	Dipali Lalla		CO3									
Course Outcomes			CO4									
	CO1	To introduce upcoming trends in Information technology.	CO5									
	CO2	To study Eco friendly software development.	Average	1.50	2.50	2.50	2.00	2.50	2.50	2.50	2.50	1.50
	CO3											
	CO4											
	CO5											

Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-604			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	SOFTWARE TESTING		CO1	3	3	3	3	3	3	3	3	3
Semester No	VI		CO2	3	3	2	2	3	3	2	2	2
Teacher Name	Abhijita Jagatap		CO3	2	3	3	3	2	3	3	3	2
Course Outcomes			CO4									
	CO1	To know the concept of software testing.	CO5									
	CO2	To understand how to test bugs in software.	Average	2.67	3.00	2.67	2.67	2.67	3.00	2.67	2.67	2.33
	CO3	To develop programming logic.										
	CO4											
	CO5											

Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-605			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Software Project – II [Java / Dot net Technology]		CO1	3	3	3	3	3	3	3	3	3
Semester No	VI		CO2	3	3	2	2	3	3	3	2	2
Teacher Name	AWATE S.A		CO3	2	3	3	3	2	2	2	3	2
Course Outcomes			CO4									
	CO1	To know advance software development	CO5									
	CO2	To build projects based on JAVA/DOT NET	Average	2.67	3.00	2.67	2.67	2.67	2.67	2.67	2.67	2.33
	CO3	To know creation, development and documentation, test report										
	CO4											

	CO5	
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Class		TYBBA(CA)	Course Outcomes	Program Outcomes						PSOs		
Subject Code	CA-606			PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
Subject Name	Laboratory Course – VI [Based on Paper No. 601 & 602 ]		CO1	3	3	3	3	3	3	3	3	2
Semester No	VI		CO2	3	2	3	3	3	2	2	3	3
Teacher Name	PRACHI WALUNJKAR &DETHE MADHAVI		CO3	3	3	3	3	3	3	3	3	2
Course Outcomes			CO4									
	CO1	To build application based on advance concepts of JAVA & WEB	CO5									
	CO2	To create web application and create connectivity	Average	3.00	2.67	3.00	3.00	3.00	2.67	2.67	3.00	2.33
	CO3	To develop enterprise apps and use advance features										
	CO4											
	CO5											

		CO-PO Mapping						
		Course	PO1	PO2	PO3	PO4	PO5	PO6
FY	FY	1 CA-101	3.00	2.50	2.50	1.75	1.75	2.00
		2 CA-102	2.75	2.75	2.50	2.50	2.75	2.75
		3 CA-103	2.75	2.50	2.50	1.00	3.00	3.00
		4 CA-104	3.00	2.75	3.00	1.00	2.50	3.00
		5 CA-105	2.67	2.67	2.00	1.33	2.33	2.00
		6 CA-106	3.00	3.00	2.50	1.00	2.50	3.00
		7 CA-017	3.00	3.00	2.67	1.00	2.33	3.00
		8 CA-201	2.60	2.40	2.40	3.00	1.00	1.20
		9 CA-202	2.75	2.50	2.00	2.50	1.00	1.50
		10 CA-203	3.00	2.50	2.50	1.00	1.00	2.00
		11 CA-204	2.80	3.00	2.60	1.00	3.00	2.60
		12 CA-205	3.00	2.50	2.50	1.00	3.00	2.50
		13 CA-206	2.67	2.33	2.67	1.00	3.00	2.67
		14 CA-207	3.00	2.50	3.00	1.00	3.00	3.00
SY	SY	1 CA-301	3.00	2.00	2.00	2.50	2.00	1.50
		2 CA-302	2.75	2.75	2.75	2.50	2.75	2.75
		3 CA-303	2.50	2.00	3.00	2.50	2.00	2.00
		4 CA-304	3.00	2.00	2.00	3.00	3.00	3.00
		5 CA-305	2.33	1.67	2.67	2.33	1.67	3.00
		6 CA-306	2.67	2.67	2.67	2.33	2.33	2.33
		7 CA 401	1.67	1.67	1.33	1.33	2.00	2.33
		8 CA 402	2.50	2.50	3.00	3.00	2.50	3.00
		9 CA 403	1.75	1.50	1.25	1.25	1.75	2.25
		10 CA 404	2.33	2.00	2.00	3.00	3.00	3.00
		11 CA 405	2.33	2.33	1.67	3.00	2.00	3.00
		12 CA 406	2.67	2.67	2.67	3.00	3.00	3.00
		13 CA 407	1.00	1.00	1.00	1.00	1.00	1.00
TY	TY	1 CA-501	3.00	2.50	3.00	2.50	3.00	3.00
		2 CA-502	1.50	0.50	1.50	2.50	2.00	2.00
		3 CA-503	1.50	1.50	2.00	2.50	2.50	2.00
		4 CA-504	2.00	2.50	2.50	3.00	2.50	3.00
		5 CA-505	3.00	2.50	3.00	3.00	3.00	2.50
		6 CA-506	3.00	2.67	3.00	3.00	2.67	2.67
		7 CA-601	2.00	2.00	1.50	2.00	2.50	2.00
		8 CA-602	2.67	2.33	2.33	2.67	3.00	2.67
		9 CA-603	1.50	2.50	2.50	2.00	2.50	2.50
		10 CA-604	2.67	3.00	2.67	2.67	2.67	3.00
		11 CA-605	2.67	3.00	2.67	2.67	2.67	2.67
		12 CA-606	3.00	2.67	3.00	3.00	3.00	2.67

CO-PO ATTAINMENT					
PO1	PO2	PO3	PO4	PO5	PO6
1.56	1.3	1.3	0.91	0.91	1.04
1.43	1.43	1.3	1.3	1.43	1.43
1.136667	1.033333	1.033333	0.413333333	1.24	1.24
1.24	1.136667	1.24	0.413333333	1.033333	1.24
1.386667	1.386667	1.04	0.693333333	1.213333	1.04
1.56	1.56	1.3	0.52	1.3	1.56
1.56	1.56	1.386667	0.52	1.213333	1.56
0.797333	0.736	0.736	0.92	0.306667	0.368
1.136667	1.033333	0.826667	1.033333333	0.413333	0.62
1.56	1.3	1.3	0.52	0.52	1.04
2.501333	2.68	2.322667	0.893333333	2.68	2.322667
1.4	1.166667	1.166667	0.466666667	1.4	1.166667
2.097778	1.835556	2.097778	0.786666667	2.36	2.097778
2.68	2.233333	2.68	0.893333333	2.68	2.68
3	2	2	2.5	2	1.5
2.75	2.75	2.75	2.5	2.75	2.75
2.5	2	3	2.5	2	2
3	2	2	3	3	3
1.586667	1.133333	1.813333	1.586666667	1.133333	2.04
2.666667	2.666667	2.666667	2.333333333	2.333333	2.333333
1.666667	1.666667	1.333333	1.333333333	2	2.333333
1.7	1.7	2.04	2.04	1.7	2.04
1.75	1.5	1.25	1.25	1.75	2.25
2.333333	2	2	3	3	3
2.333333	2.333333	1.666667	3	2	3
2.666667	2.666667	2.666667	3	3	3
1	1	1	1	1	1
3	2.5	3	2.5	3	3
1.5	0.5	1.5	2.5	2	2
1.5	1.5	2	2.5	2.5	2
2	2.5	2.5	3	2.5	3
3	2.5	3	3	3	2.5
3	2.666667	3	3	2.666667	2.666667
2	2	1.5	2	2.5	2
2.666667	2.333333	2.333333	2.666666667	3	2.666667
0.78	1.3	1.3	1.04	1.3	1.3
2.666667	3	2.666667	2.666666667	2.666667	3
2.666667	3	2.666667	2.666666667	2.666667	2.666667
3	2.666667	3	3	3	2.666667

Percentage CO-PO ATTAINMENT					
PO1	PO2	PO3	PO4	PO5	PO6
43.33333	52	36.4	52	59.42857	0
52	47.27273	52	57.2	52	0
37.57576	41.33333	16.53333	124	41.33333	0
37.88889	45.09091	13.77778	103.3333	49.6	0
52	39	34.66667	91	44.57143	0
52	43.33333	20.8	130	62.4	0
52	46.22222	19.5	121.3333	66.85714	0
28.30769	30.66667	38.33333	10.22222	36.8	0
37.57576	33.06667	51.66667	16.53333	62	0
43.33333	52	20.8	52	104	0
95.71429	77.42222	34.35897	268	77.42222	0
38.88889	46.66667	18.66667	140	38.88889	0
68.83333	89.90476	29.5	236	69.92593	0
74.44444	107.2	29.77778	268	89.33333	0
66.66667	100	125	80	75	0
100	100	90.90909	110	100	0
80	150	83.33333	80	100	0
66.66667	100	150	100	100	0
48.57143	108.8	59.5	48.57143	122.4	0
100	100	87.5	100	100	0
100	80	100	150	116.6667	0
68	81.6	68	56.66667	81.6	0
85.71429	83.33333	100	140	128.5714	0
85.71429	100	150	100	100	0
100	71.42857	180	66.66667	150	0
100	100	112.5	100	100	0
100	100	100	100	100	0
83.33333	120	83.33333	120	100	0
33.33333	300	166.6667	80	100	0
100	133.3333	125	100	80	0
125	100	120	83.33333	120	0
83.33333	120	100	100	83.33333	0
88.88889	112.5	100	88.88889	100	0
100	75	133.3333	125	80	0
87.5	100	114.2857	112.5	88.88889	0
86.66667	52	41.6	65	52	0
112.5	88.88889	100	100	112.5	0
112.5	88.88889	100	100	100	0
88.88889	112.5	100	100	88.88889	0

**CO-PSO MAPPING**

**CO-PSO ATTAINMENT**

**Percentage CO-PSO ATTAINMENT**

	Course	PSO1	PSO2	PSO3
FY	1 CA-101	2.25	1.50	2.50
	2 CA-102	1.00	1.50	3.00
	3 CA-103	3.00	3.00	1.75
	4 CA-104	3.00	3.00	1.50
	5 CA-105	2.67	1.33	1.67
	6 CA-106	3.00	3.00	1.50
	7 CA-017	2.67	2.67	1.00
	8 CA-201	1.60	1.00	3.00
	9 CA-202	1.75	1.50	2.75
	10 CA-203	2.00	2.00	2.00
	11 CA-204	3.00	3.00	1.40
	12 CA-205	3.00	3.00	1.50
	13 CA-206	3.00	3.00	1.33
	14 CA-207	3.00	3.00	2.00
SY	1 CA-301	2.50	1.50	1.00
	2 CA-302	2.75	2.25	2.25
	3 CA-303	2.50	2.00	3.00
	4 CA-304	3.00	3.00	2.00
	5 CA-305	2.00	2.33	2.33
	6 CA-306	2.67	2.33	2.33
	7 CA 401	2.33	1.67	1.33
	8 CA 402	2.50	2.00	2.00
	9 CA 403	1.50	1.50	1.00
	10 CA 404	1.67	2.33	2.33
	11 CA 405	1.33	1.33	1.33
	12 CA 406	3.00	2.67	2.67
	13 CA 407	1.00	1.00	1.00
TY	1 CA-501	2.50	2.50	1.50
	2 CA-502	1.50	2.50	2.50
	3 CA-503	2.00	2.50	2.00
	4 CA-504	2.50	2.50	2.50
	5 CA-505	3.00	2.50	3.00
	6 CA-506	2.67	3.00	2.33
	7 CA-601	2.50	3.00	1.50
	8 CA-602	3.00	2.67	3.00
	9 CA-603	2.50	2.50	1.50
	10 CA-604	2.67	2.67	2.33
	11 CA-605	2.67	2.67	2.33
	12 CA-606	2.67	3.00	2.33

Course	PSO1	PSO2	PSO3
CA-101	1.17	0.78	1.3
CA-102	0.52	0.78	1.56
CA-103	1.24	1.24	0.723333
CA-104	1.24	1.24	0.62
CA-105	1.386667	0.693333	0.866667
CA-106	1.56	1.56	0.78
CA-017	1.386667	1.386667	0.52
CA-201	0.490667	0.306667	0.92
CA-202	0.723333	0.62	1.136667
CA-203	1.04	1.04	1.04
CA-204	2.68	2.68	1.250667
CA-205	1.4	1.4	0.7
CA-206	2.36	2.36	1.048889
CA-207	2.68	2.68	1.786667
CA-301	2.5	1.5	1
CA-302	2.75	2.25	2.25
CA-303	2.5	2	3
CA-304	3	3	2
CA-305	1.36	1.586667	1.586667
CA-306	2.666667	2.333333	2.333333
CA 401	2.333333	1.666667	1.333333
CA 402	1.7	1.36	1.36
CA 403	1.5	1.5	1
CA 404	1.666667	2.333333	2.333333
CA 405	1.333333	1.333333	1.333333
CA 406	3	2.666667	2.666667
CA 407	1	1	1
CA-501	2.5	2.5	1.5
CA-502	1.5	2.5	2.5
CA-503	2	2.5	2
CA-504	2.5	2.5	2.5
CA-505	3	2.5	3
CA-506	2.666667	3	2.333333
CA-601	2.5	3	1.5
CA-602	3	2.666667	3
CA-603	1.3	1.3	0.78
CA-604	2.666667	2.666667	2.333333
CA-605	2.666667	2.666667	2.333333
CA-606	2.666667	3	2.333333

Course	PSO1	PSO2	PSO3
CA-101	52	52	52
CA-102	52	52	52
CA-103	41.333333	41.333333	41.333333
CA-104	41.333333	41.333333	41.333333
CA-105	52	52	52
CA-106	52	52	52
CA-017	52	52	52
CA-201	30.66667	30.66667	30.66667
CA-202	41.333333	41.333333	41.333333
CA-203	52	52	52
CA-204	89.333333	89.333333	89.333333
CA-205	46.66667	46.66667	46.66667
CA-206	78.66667	78.66667	78.66667
CA-207	89.333333	89.333333	89.333333
CA-301	100	100	100
CA-302	100	100	100
CA-303	100	100	100
CA-304	100	100	100
CA-305	68	68	68
CA-306	100	100	100
CA 401	100	100	100
CA 402	68	68	68
CA 403	100	100	100
CA 404	100	100	100
CA 405	100	100	100
CA 406	100	100	100
CA 407	100	100	100
CA-501	100	100	100
CA-502	100	100	100
CA-503	100	100	100
CA-504	100	100	100
CA-505	100	100	100
CA-506	100	100	100
CA-601	100	100	100
CA-602	100	100	100
CA-603	52	52	52
CA-604	100	100	100
CA-605	100	100	100
CA-606	100	100	100