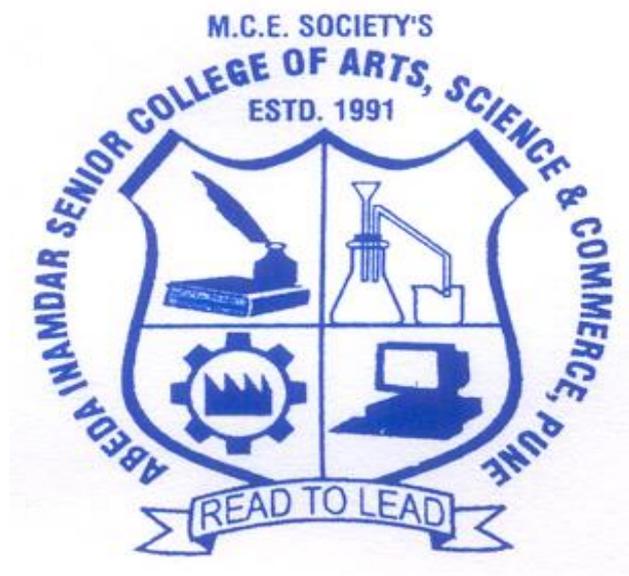MCE Society's

Abeda Inamdar Senior College of Arts, Science and Commerce (Autonomous), Pune

FACULTY OF COMMERCE

B.B.A (C.A) PROGRAM STRUCTURE

Bachelor of Business Administration (Computer Application)

Choice-Based Credit System (CBCS) Under Autonomy

(Semester Pattern)

Program (2021 Pattern)

With effect from June 2021

Table of Contents

1. Program Overview

B.B.A (C.A) is a three year degree program spread over 6 semesters with a wide range of Computer Technologies, Commerce and Management subjects. B.B.A (C.A) Course endeavors to achieve a balance between theoretical foundation and practical experience. The different core, elective subjects and a wide range of value added course, helps the students to build an all round personality to successfully face the challenges of a professional career and good communication skills.

Program objectives:

1. To acquire the basic knowledge of computer technologies, commerce and management skills.
2. To impart experiential learning and also provide practical exposure on the subjects to survive in IT industry.
3. To develop social and ethical values for employability through various skills.
4. To prepare students to pursue higher education and build their professional qualification.

2. DEFINITION OF KEY CONCEPTS

2.1. **Academic Year:** The duration of two consecutive (one odd and one even) semesters constitute one academic year.

2.2. **Choice Based Credit System (CBCS):** The CBCS provides choice for students to select from the prescribed courses (core courses, discipline specific electives, generic elective, ability enhancement compulsory courses, skill enhancement courses, mandatory non-CGPA courses etc.).

2.3. **Program:** An educational program leading to award of a degree.

2.4. **Course:** Usually referred to, as 'paper' is a component of a program. Each course should define learning objectives and learning outcomes. A course may be designed to comprise lectures, field work, outreach activities, project work, vocational training, viva, seminars, term papers, assignments, presentations, self-study etc. or a combination of some of these.

2.5. **Credit(C):** A unit by which the course work is measured. It determines the number of hours of teaching/ instruction required per week.

To earn 1 credit minimum 15 hours of teaching/ instruction is required.

A 3 credits theory course requires a minimum duration of 45 hours of teaching in a semester
(15 hrs * 3= 45 hours).

A 2 credits theory course requires a minimum duration of 30 hours of teaching in a semester.

A 1 credits practical course requires a minimum duration of 30 hours of practical work in a semester

2.6. **Letter Grade:** It is an index of the performance of students in a said course. Grades are denoted by letters O, A+, A, B+, B, C, P and F. The Letter Grades, Grade Points and scale of UGC are adopted. Grading is done using Letter Grades as qualitative measure of achievement in each Course like: O (Outstanding), A+ (Excellent), A (Very Good), B+ (Good), B (Above Average), C (Average), P (Pass), F (Fail) and Ab (Absent), based on the percentage (%) of marks scored in (CIE+SEE) of the Course and conversion to Grade.

2.7. **Grade Point (GP):** It is a numerical weight allotted to each letter grade on a 10-point UGC scale viz. O=10, A+=09, A=08, B+=07, B=06, C=05, P=04, F=00 & Ab=00.

2.8. **Credit Point (CP):** The numerical value obtained by multiplying the grade point (GP) by the no. of credit(C) of the respective course i.e. CP= GP X C.

2.9. **Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

2.10. **Semester Grade Point Average (SGPA):** It is a measure of performance of work done in a semester. It is ratio of total credit points (CPs) secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places.

2.11. **Semester:** Each semester shall consist of 15-18 weeks of academic work equivalent to 90/100 actual teaching days. The odd semester may be scheduled from June to December and even semester from January to May.

2.12. **Transcript:** Based on the grades earned, a transcript shall be issued to all the registered students after every semester. The transcript shall display the course details (code, title, no. of credits, grades secured) along with SGPA of that semester and CGPA earned till that semester at the end of each academic year. The students shall be issued transcript for each semester and a consolidated transcript indicating the performance in all the semesters at the completion of the program.

2.13. **Absolute Grading:** Under the absolute grading, the marks are converted to grades based on pre-

determined class intervals.

2.14. **Continuous Internal Evaluation (CIE)** and **Semester End Examinations (SEE)** are two key assessment methods. For all theory courses/papers/practicals/project, the ratio of CIE & SEE is 40:60. Thus a course of 100 Marks shall have 40 CIE + 60 SEE. For Addon subject (AECC / SEC), the ratio of CIE & SEE is 20:30. Thus addon course of 50 marks shall have 20 CIE + 30 SEE(conducted at departmental level).

2.15. **Program Span (PS):** The program's maximum time for completion shall be: Duration of Program (3 yrs) plus additional two 2 years. .

3. INTRODUCTION

The B.B.A(C.A) Degree Course (2021 pattern) will be introduced in the following order:-

      a. First Year B.B.A(C.A).   2021-2022
      b. Second Year B.B.A(C.A).   2022-2023
      c. Third Year B.B.A(C.A).   2023-2024

- ✓ B.B.A(C.A). Degree Course will consist of Six Semesters divided into Three Years.
- ✓ The First Year (Semester I and II), Second Year (Semester III and IV) and Third Year (Semester V and VI) ; Choice Based Credit System Examination will be held at the end of each semester(i.e. Semester End Examination (SEE)).

4. ELIGIBILITY:

a) A candidate is eligible for admission to the Degree in Bachelor of Business Administration (Computer Application) after passing 12th standard examination (H.S.C) from any stream with English as passing subject; and has secured 40% marks in 12th standard **OR**

b) Three Years Diploma after S.S.C. i.e. 10th Standard of Board of Technical Education conducted by Government of Maharashtra or its equivalent. **OR**

c) Two Years Diploma in Pharmacy after H.S.C. of Board of Technical Education conducted by Government of Maharashtra or its equivalent. **OR**

d) MCVC (Minimum Competency Vocational Courses).

5. A.T.K.T. Rules :

➢ If a candidate fails in all the courses (subject heads) of Semester-I shall be allowed to proceed in Semester-II. However, a Candidate who fails in not more than **three** theory & **one** practical or

four theory subject heads; out of total subjects in First year examination (i.e. I & II Semester) taken together may be admitted to Semester-III & IV(i.e. Second Year).

➢ If a candidate fails in all the courses (subject heads) of Semester-III shall be allowed to proceed to Semester -IV. However, a Candidate who fails in not more than **three** theory & **one** practical or **four** theory subject heads; out of total subjects in Second year examination (i.e. III & IV Semester) taken together may be admitted to Semester -V & VI (i.e. Third Year).

➢ If a candidate fails in all the courses (subject heads) of the passing of semester V shall be allowed to proceed to Semester -VI. No candidate shall be allowed to proceed to Semester-V unless the candidate has cleared Semester-I & II in all courses (Theory and Practicals).

➢ A.T.K.T rules are applicable for 2nd and 4th Semester.

6. COURSES CARRYING PRACTICALS:

    a) Each practical course will be of two credits (i.e. 60 hours).

    b) Duration of one practical course is 04 hours.

7. COURSE HAVING PRACTICAL AND PROJECT EXAMINATION:

Semester	Type of Course	Name of Practical Course	Course Code
I	Core Course Practical	Programming in C	21CBCA113
I	Core Course Practical	Database Management System	21CBCA114
II	Core Course Practical	Advance C	21CBCA122
II	Core Course Practical	Relational Database Management System	21CBCA124
II	Core Course Practical	Web Technology HTML-JS-CSS	21CBCA125
III	Core Course Practical	Data Structure Using C	21CBCA232
III	Elective Course Practical-I	a) Angular JS	21CBCA234A
III	Elective Course Practical-I	b) PHP	21CBCA234B
III	Elective Course Practical-II	a) Big Data	21CBCA235A
III	Elective Course Practical-II	b) Block Chain	21CBCA235B
IV	Core Course Practical	Object Oriented Programming (C++)	21CBCA242

IV	Elective Course Practical	a) Node JS	21CBCA244A
		b) Advance PHP	21CBCA244B
IV	Project Course	Project (Written Report)	21CBCA245
V	Core Course Practical	Core JAVA	21CBCA353
V	Elective Course Practical	a) Mongo DB	21CBCA354A
		b) Python	21CBCA354B
V	Project Course	Project (Any Technology)	21CBCA355
VI	Core Course Practical	Advanced JAVA	21CBCA363
VI	Elective Course Practical	a) Android Programming	21CBCA364A
		b) Dot Net Framework	21CBCA364B
VI	Project Course	Project	21CBCA365

8. MEDIUM OF INSTRUCTION:

The medium of instruction for B.B.A(C.A). Degree course shall be English.

9. DURATION:

- The program shall be a Full-Time Program and the duration of the program shall be for three years. If a student fails to complete the Program in three years, two more years will be given to complete the program. i.e.the program's maximum time for completion shall be: Duration of Program (3 yrs) plus additional two 2 years.

- If the student fails to complete the Program within the period of 5 years, his registration to the Program stands cancelled and the credits earned will be lost.

- In case if the student intends to persue the program he/she will have to start afresh from the First Year again.

10.ATTENDANCE:

No candidate shall be admitted to the Semester end examinations unless he/ she has satisfactorily completed 75% of attendance for both the semesters.

11. COLLEGE TERMS:

The dates for the commencement and conclusion of the first and the second terms shall be as determined by the College Authorities. Only duly admitted Candidates can keep the terms. The present relevant ordinances pertaining to grant of terms will be applicable.

12. VERIFICATION AND REVALUATION:

- ➢ The candidate may apply for Verification and Revaluation of result through Principal of the College, which will be done by the college as per ordinances framed in this behalf.
- ➢ Verification and Revaluation rule will not be applicable for Practical Courses/ Project courses.

13. STANDARD OF PASSING:

- ➢ A student must obtain a minimum of 40% marks (i.e. 16 marks out of 40 marks) in Continuous Internal Evaluation (CIE), and minimum 40% marks (i.e. 24 marks out of 60 marks) in Practical/Project Examination and Semester End Examination.
- ➢ Passing seperately in Internal Assessment, Practical Examination and Semester End Examination is compulsory.
- ➢ Student who fails in CIE of any Semester can reappper for the same in next immediate semester(e.g. student who fails in Semester-I CIE can reappear for it in Semester-II itself).

14. METHODS OF EVALUATION, PASSING, AND EVALUATION CRITERIA:

The evaluation of students will be done on four parameters:-

1. Continuous Internal Evaluation (CIE)
2. Project Examination (**List of Courses having project is given in Sr. No. 5**)
3. Practical Examination (**List of Courses having practical is given in Sr. No. 5**)
4. Semester End Examination

MARKS DISTRIBUTION	
Continuous Internal Evaluation (CIE)	**40 Marks**
Semester End Examination	**60 Marks**
Total	**100 Marks**

1. **Semester End Examination**, There will be a Written Examination of **60** marks for each subject, the duration of exam will be **2 ½** hours for each Semester.

    Setting of Question Papers (Applicable to theory subjects)

    1. A candidate shall have to answer the questions in all the subjects in English only.

    2. Question papers shall be framed so as to ensure that complete syllabus is covered.

    3. Question paper shall be balanced by considering the outlined syllabus.

    4. The question papers shall have a combination of long, short answer and MCQ type questions.

    5. **(Applicable to practical subjects)** The question paper shall have 30% questions based on practicals/programs.

    6. **(Applicable to addon(SEC/AECC) subjects)** The question paper shall be set at departmental level.

2. **Continuous Internal Evaluation (CIE)**, Evaluation will be done continuously. Internal assessment will be of **40** marks. The Distribution is as follows:

    1. Compulsory Online MCQ Class Test of **10 marks** will be conducted for each Subject.

    2. Compulsory Mid Semester Examination of **10 marks** will be conducted for each Subject.

    3. **5** marks are reserved for **Students Active Participation** in Departmental Activity/Attendance/Classroom activity.

    4. In addition, for remaining **(15 Marks)** The subject teacher needs to adopt any **3** options (5 marks each) out of the following methods for internal assessment:

        a. Quiz

        b. Presentations

        c. Projects

        d. Assignments

        e. Tutorials

        f. Oral examination

        g. Open book test etc.

    CIE Evaluation for Addon Subjects, Evaluation will be done continuously. Internal assessment will be of **20** marks. The Distribution is as follows:

    1. **5** marks are reserved for **Students Active Participation** in Departmental Activity/Attendance/Classroom activity.

    2. In addition, for remaining **(15 Marks)** The subject teacher needs to adopt any **3** options (5 marks each) out of the following methods for internal assessment:

        a. Quiz

        b. Presentations

        c. Projects

        d. Assignments

        e. Tutorials

        f. Oral examination

        g. Open book test etc.

3. **Project Examination,** Evaluation will be done continuously for Semester -IV, V & VI.

   1. Internal Assessment for Semester-IV, V & VI will be of **40** marks and External Assessment will be of **60** Marks. Semester-IV Project Assessment will be based on Written Report and Viva Presentation.Semester-V & VI Assessment will be done on execution of Project, Project Report and Viva.

   2. Semester-IV Project Evaluation

   Evaluation for internal **40** Marks for Project

Description	Marks
Synopsis	10
Diagrams	10
Progress Report	10
Viva	10

   Evaluation for external **60** Marks for Project

Description	Marks
Form Designing	20
Database Dictionary with 3NF Normalization	20
Final Written Report	10
Viva	10

   3. Semester-V & VI Project Evaluation

   Evaluation for internal **40** Marks for Project

Description	Marks
Synopsis	10
First Demo , Diagrams & Designing of Forms	10
Second Demo Establishing Database Connectivity	10
Final Demo on Project execution and documentation	10

   Evaluation for external **60** Marks for Project

Description	Marks
Project Demo with Explanation	40
Documentation	10
Viva	10

4. **Practical Examination,** Internal Assessment will be of **40** marks and External Assessment will be of **60** Marks. Practical Slips will be set for **60** marks (**3** hours duration).

Evaluation for internal **40** Marks for Practical

Description	Marks
Prelim Practical Exam	20
Lab book	10
Viva	10

Evaluation for External **60** Marks for Practical

Description	Marks
Execution of Slips with output	50
External Viva	10

15. STRUCTURE OF TRANSCRIPT:

Calculation of SGPA and CGPA:

SGPA stands for Semester Grade Point Average. The performance of a student in particular semester is given by **SGPA**. It can be calculated by the sum of total grade point divided by credit of total subject.

$$SGPA = \Sigma \frac{\text{Grade point earned X credits for each course}}{Total Credits}$$

CGPA is the **calculation** of the cumulative grade point average value obtained by the student in all the subjects. The Grade Points obtained in all the subjects' are **calculated** along with the total number of credit hours the student has attempted.

$$CGPA = \Sigma \frac{\text{Grade point earned X credits for each course}}{Total Credits}$$

Conversion of Marks into credit(s) and grade(s):

The following illustrations could be taken as an example for computing SGPA and CGPA from percentage to credits in all disciplines, for the degree program in B.B.A (C.A).

The following formula may be used to convert (%) into Grade Letter

Sr. No	Grade Letter	Grade Point	Marks
1	O (Outstanding)	10	$90 \leq$ Marks ≤ 100
2	A+(Excellent)	9	$75 \leq$ Marks ≤ 89
3	A (Very Good)	8	$60 \leq$ Marks ≤ 74
4	B+(Good)	7	$55 \leq$ Marks ≤ 59
5	B (Above Average)	6	$50 \leq$ Marks ≤ 54

6	C (Average)	5	$45 \leq$ Marks ≤ 49
7	D (Pass)	4	$40 \leq$ Marks ≤ 44
8	F (Fail)	0	Marks < 40

16. IMPROVEMENT OF CLASS :

1) A Candidate will be allowed to re-appear for the examination for improvement of Class or grade within a period of 2 years from the date of his/her passing bachelors degree examination. Only 1 attempt for improvement will be allowed, according to the syllabus in existence at the time of improvement.

2) A Candidate shall have to reappear for minimum $1/3^{rd}$ and or maximum all the theory courses (except practical and project) at a time on which the class is awarded.

3) A Candidate who has appeared for improvement of class and fails to improve his/her class , his/her performance of reappearance shall be ignored.

4) A Candidate appearing for the improvement of Class grade, shall not be entitled to be in the list of Rank Holders/ Merit Holders.

5) Improved Candidate will have to surrender the Degree, Statement of marks, Passing Certificate in original, after the declaration of their results of the concerned improved class. After surrendering the above documents in original new certificate will be issued in due course of time as in usual process.

17.SCHEME OF CREDITS (Academic/CGPA):

Total credits **132** for three years B.B.A(C.A). Course (2021 pattern) is as follows:-

Sr. No.	Semester No	Theory				Practical		Credit for Project	SEC/ AECC course credit(*)	SEC/ AECC Lecture week	Lectures + Practical + Project+ Additional Subject= Total Credits
		No of theory Courses (CC)	No of elective Courses (EC)	Credit per theory Course	Lecture week	No of practical Courses	Credit per practical Courses				
		a	b	C	d	e	f	g	h		(a*c)+(b*c)+(e*f)+g+h
1	I	5	-	3	4	2	2	--	2	3	15+0+4+0+2=21
2	II	5	-	3	4	2	2	--	2	3	15+0+4+0+2=21
3	III	3	2	3	4	3	2	--	2	3	9+6+6+0+2=23
4	IV	3	1	3	4	2	2	4	2	3	9+3+4+4+2=22
5	V	3	1	3	4	2	2	4	2	3	9+3+4+4+2=22
6	VI	2	1	3	4	2	2	4	2	3	(6+3)+4(CCT)+4+4+2=23
		1(CCT)	-	4	4		--	--	--	--	
	Total No. Of Credits										**132**

Note-
- **One Theory Lecture = 50 minutes.**
- **One Practical/ Project session = 04 hours.**

CGPA Additional Subject Courses (*)

Sr. No.	Additional Subject Course (Ability Enhancement Credit Course and Skill Enhancement Courses)	Class	Semester	Credit
1	***Value-added course – I* (SEC)** Enterpreneurship Development (30 hrs)	F.Y.B.B.A(C.A).	I	2
2	***Value-added course – II* (SEC)** Financial Accounting & Computerized Accounting (30 hrs)	F.Y.B.B.A(C.A).	II	2
3	***Value-added course – III* (AECC)** Environmental Science Awareness Course	S.Y.B.B.A(C.A).	III	2
4	***Value-added course – IV* (SEC)** IOT (Internet of Things)(30 hrs)	S.Y.B.B.A(C.A).	IV	2
5	***Value-added course – V* (SEC)** Data Science (30 hrs)	T.Y.B.B.A(C.A).	V	2
6	***Value-added course – VI* (SEC)** Soft Skills Training (30 hrs)	T.Y.B.B.A(C.A).	VI	2
Total				**12**

18. COURSEWISE CLASSIFICATION OF CGPA/ACADEMIC CREDITS:

Total credits for three years B.B.A(C.A). Course (2021 pattern) is as follows:-

Sr. No.	Nature of Courses	Semesters (Credits)						Total (Credits)
		I	II	III	IV	V	VI	
1	Ability Enhancement Compulsory Course	--	--	2	--	--	--	2
2	Skill Enhancement Course	2	2	--	2	2	2	10
3	Core Course	15	15	9	9	9	6	63
4	Practical	4	4	6	4	4	4	26
5	Elective Course	--	--	6	3	3	3	15
6	Project	--	--	--	4	4	4	12
7	Core Course with Tutorial	--	--	--	--	--	4	4
	Sub Total	21	21	23	22	22	23	132 (Grand Total)

19. SCHEME OF CREDITS (NON-CGPA):

In addition to the compulsory credits of 132, the student has to earn additional 08 credits from the following groups by taking/participating/conducting respective activities. These extra credits will not be considered for GPA calculation; however, these are mandatory for the completion and award of B.B.A(C.A) Degree.

- Courses in Sr. No. 1 and in Sr. No. 2, are compulsory (02 Credits Each).
- A student has to earn the remaining 04 Credits through participation in the various activities from in Sr. No. 3 to Sr. No.32.
- A student is encouraged to earn a maximum of 04 credits in a year.

Sr No.	Activity	Code	Credits
1.	Physical Education	21CPE11M2	2
2.	Democracy, Elections And Good Governance	21CDG12M2	2
3.	Sports Representation at College Level	21SRCO1	1
4.	Sports Representation at University Level	21SRUO2	2
5.	Sports Representation at State Level	21SRSO2	2
6.	Sports Representation at National Level	21SRNO3	3
7.	Sports Representation at International Level	21SRIO3	3
8.	National Social Service Scheme (participation in Camp)	21NSSO1	1
9.	N.C.C. (with participation in annual camp)	21NCCAO1	1
10.	N. C. C. (with B certificate/C certificate award)	21NCCCO2	2
11.	N.S.S./N.C.C. Republic day parade participation	21RDPO4	4
12.	Extension	21EAO1	1
13.	Avishkar participation	21APO1	1
14.	Avishkar selection at university/state level	21ASO2	2
15.	Avishkar prize winner at university/state level	21AAO4	4
16.	Research paper presentation at State Level	21RPSO2	1
17.	Research paper presentation at National Level	21RPNO2	1
18.	Research paper presentation at International Level	21RPIO3	2
19.	Participation in Summer School	21SSO2	2
20.	Short Term Program (Not less than 1-week duration)	21STPO2	2
21.	Survey - Scientific / Societal.	21SVO2	2
22.	Internships of 1 month	21IOMO2	2
23.	Internships of 2 month	21ITMO4	4
24.	Study tours - Field / Industrial Visits	21STO1	1
25.	Participation in curricular: co-curricular & Extra-curricular competitions at college minimum two events	21PECO1	1

26.	Participation in curricular: co-curricular & Extra-curricular competitions at Intercollegiate level	21PECO2	2
27.	Online Certificate Courses/ MOOC Courses/ Career Advancement Course 10 hours	21CC01	1
28.	Online Certificate Courses/ MOOC Courses/ Career Advancement Course 20 hours	21CC02	2
29.	Online Certificate Courses/ MOOC Courses/ Career Advancement Course 30 hours	21CC03	3
30.	Online Certificate Courses/ MOOC Courses/ Career Advancement Course 40 hours	21CC04	4
31.	Department / Faculty courses at College: 1. Self Employment Techniques with practical approach OR 2. JQuery	21CVADO2	2
32.	Interdisciplinary courses at College	21CVAIO2	2

20.Marks Structure of Choice Based Credit System Course

First Year B.B.A(C.A). Semester – I w.e.f. 2021- 22

Course No.	Course / Title of Paper	Course	No. of lecture	No of Credits	Continous Internal Examination	University Assessment		Total Marks	Duration of Theory/ Practical Examination
						Semester End Examination	Practical Exam		
21CBCA111	Business and Professional Skills	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA112	Principles of Management	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA113	Programming in C	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA114	Database Management System	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA115	Business Statistics	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA116	Computer Laboratory Based on 113 (2 credits)	Practical	60	2	20	--	30	100	3 Hours
	Computer Laboratory Based on 114(2 credits)		60	2	20	--	30		
21CBCA117M	Entrepreneurship Development (30 Hours)	SEC	36	2	20	30	--	50	1½ Hours
Total				21	260	330	60	650	--

First Year B.B.A(C.A).. Structure of the Syllabus w.e.f. 2021- 22
Semester – II

Course No.	Course / Title of Paper	Course	No. of lecture	No. of Credits	Continous Internal Examination	University Assessment		Total Marks	Duration of Theory / Practical Examination
						Semester End Examination	Practical/ Project Exam		
21CBCA121	Human Resource Management & Organizational Behavior	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA122	Advance C	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA123	Business Mathematics	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA124	Relational Database Management System	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA125	Web Technology HTML-JS-CSS	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA126	Computer Laboratory Based on 124 (2 credits)	Practical	60	2	20	--	30	100	3 Hours
	Computer Laboratory Based on 122 & 125 (2 credits)		60	2	20	--	30		
21CBCA127M	Financial Accounting & Computerized Accounting (30 Hours)	SEC	36	2	20	30	--	50	1½ Hours
Total				21	260	330	60	650	--

Course No.	Course / Title of Paper	Course	No. of lecture	Total No. of Credits	Continous Internal Examination	University Assessment		Total Marks	Duration of Theory/ Practical Examination
						Semester End Examination	Practical/ Project Exam		
21CBCA231	Digital Marketing	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA232	Data Structure Using C	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA233	Software Engineering	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA234A 21CBCA234B	**Elective Course Paper –I** **(Any One)** Angular JS PHP	Elective Course	54	3	40	60	--	100	2 ½ Hours
21CBCA235A 21CBCA235B	**Elective Course Paper –II** **(Any One)** Big Data Block Chain	Elective Course	54	3	40	60	--	100	2 ½ Hours
21CBCA236	Computer Laboratory Based on 232 (2 credits each)	Practical	60	2	15	--	20	100	3 Hours
	Computer Laboratory Based on 234 (2 credits each)		60	2	15	--	20		
	Computer Laboratory Based on 235 (2 credits each)		60	2	10	--	20		
21CBAEEV23	Environmental Science Awareness Course	AECC	36	2	20	30	--	50	1½ Hours
	Total			23	260	330	60	650	--

Second Year B.B.A(C.A) w.e.f. 2022- 23
Semester – IV

Course No.	Course / Title of Paper	Course	No. of lecture	Total No. of Credits	Continous Internal Examination	University Assessment		Total Marks	Duration of Theory/ Practical Examination
						Semester End Examination	Practical/ Project Exam		
21CBCA241	Networking	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA242	Object Oriented Programming (C++)	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA243	Operating System	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA244A 21CBCA244B	**Elective Course Paper** **(Any One)** NODE JS Advance PHP	Elective Course	54	3	40	60	--	100	2 ½ Hours
21CBCA245	Project	Project	72	4	40	-	60	100	3 Hours
21CBCA246	Computer Laboratory Based on 242 (2 credits)	Practical	60	2	20	-	30	100	3 Hours
	Computer Laboratory Based on 244 (2 credits)		60	2	20	-	30		
21CBCA247M	Internet Of Things(IOT) (30 Hours)	SEC	36	2	20	30	--	50	1½ Hours
Total				22	260	270	120	650	--

Third Year B.B.A(C.A). w.e.f. 2023- 24
Semester – V

Course No.	Course / Title of Paper	Course	No. of lecture	No. of Credits	Continous Internal Examination	University Assessment		Total Marks	Duration of Theory / Practical Examination
						Semester End Examination	Practical/ Project Exam		
21CBCA351	Cyber Security	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA352	Object Oriented Software Engineering(OOSE)	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA353	Core Java	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA354A 21CBCA354B	**Elective Course Paper** **(Any One)** Mongo DB Python	Elective Course	54	3	40	60	--	100	2 ½ Hours
21CBCA355	Project	Project	72	4	40	-	60	100	3 Hours
21CBCA356	Computer Laboratory Based on 353 (2 credits)	Practical	60	2	20	-	30	100	3 Hours
	Computer Laboratory Based on 354(2 credits)		60	2	20	-	30		
21CBCA357M	Data Science(30 Hours)	SEC	36	2	20	30	--	50	1½ Hours
Total				22	260	270	120	650	--

Third Year B.B.A(C.A) w.e.f. 2023- 24

Semester – VI

Course No.	Course / Title of Paper	Course	No. of lecture	No. of Credits	Continous Internal Examination	University Assessment		Total Marks	Duration of Theory/ Practical Examination
						Semester End Examination	Practical/ Project Exam		
21CBCA361	Data Mining and Data Warehouse	Core Course Tutorial	54	4	40	60	--	100	2 ½ Hours
21CBCA362	Human Computer Interaction (HCI)	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA363	Advanced JAVA	Core Course	54	3	40	60	--	100	2 ½ Hours
21CBCA364A 21CBCA364B	**Elective Course Paper(Any One)** Android Programming Dot Net Framework	Elective Course	54	3	40	60	-	100	2 ½ Hours
21CBCA365	Project	Project	72	4	40	--	60	100	3 Hours
21CBCA366	Computer Laboratory Based on 363(2 credits)	Practical	60	2	20	--	30	100	3 Hours
	Computer Laboratory Based on 364(2 credits)		60	2	20	--	30		
21CBCA367M	Soft Skills Training (30 Hours)	SEC	36	2	20	30	--	50	1½ Hours
Total				23	260	270	120	650	--

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