

GUJARAT UNIVERSITY, AHMEDABAD - 380009

CHOICE BASED CREDIT SYSTEM (CBCS)

Ordinances and Regulations

(For the UG – B.C.A. Programme)

(For the candidates to be admitted from the academic year 2011-2012 onwards)

Ordinances for B.C.A. = O.B.C.A. & Regulations for B.C.A. = R.B.C.A.

O. B.C.A. 1. Eligibility :

For Admission to BCA

- I.(a) The candidate must have passed the Higher Secondary Certificate Examination with science or commerce or other stream with subjects mentioned in O.B.C.A.1.I(d), conducted by the Government of Gujarat; or an examination accepted as equivalent thereto by the Executive Council/MHRD, India, subject to such conditions as may be prescribed therefore.
- (b) The candidate must have passed the above qualifying examination at a single sitting during current year. 2.5 per cent will be deducted per attempt if the candidate has passed the examination in parts.
- (c) The candidate must have obtained following minimum aggregate marks (grand total) at the above qualifying examination.
- | | |
|---------------------------------------|-----|
| (i) For open category candidates | 45% |
| (ii) For reserved category candidates | 40% |
- (d) The candidate must have passed the above qualifying examination with
- (1) English and (2) any one of the following subjects:
- (i) Mathematics
 - (ii) Physics
 - (iii) Statistics
 - (iv) Business Mathematics
 - (v) Accountancy / Elements of Accounting
 - (vi) Accounting & Book Keeping
 - (vii) Computer
- (e) Since the course is being conducted in English medium, cut off marks in English in 12th Standard will be decided by admission authority.
- II. A student having passed the Diploma Electrical / Electronics / Computer / Chemical Engineering or Diploma Pharmacy Examination of Technical Examination Board of Gujarat State or Any other examination recognized as equivalent thereto will be eligible for the admission to the third semester of B.C.A of the six semester degree programme.
- The student admitted under the above category will be exempted from appearing in examinations of B.C.A. Semester I & II. A student will be given

the credits for Semester I & II based on the Performance in the final Diploma examination.

For Award of Degree

III. **For the Degree:** The candidates shall have subsequently undergone the prescribed course of study in a college affiliated to this University for a period of not less than three academic years (except O.B.C.A 1.-II), passed the examinations prescribed and fulfilled such conditions as have been prescribed therefore.

O. B.C.A. 2. Duration :

The course is for a period of three years. Each academic year shall comprise of two semesters viz. Odd and Even semesters. Odd semesters (I, III, V) shall be from June / July to October / November and Even Semesters (II, IV, VI) shall be from November / December to April / May. There shall be not less than 90 working days which shall comprise 450 teaching clock hours for each semester. (Exclusive of the days for the conduct of University or external end-semester examinations). A candidate can avail a maximum of 12 Semester (6 Years), in a continuous stretch of 6 Years from the date of admission to complete Bachelor's Degree.

O. B. C.A. 3. Areas of Specialization: (Subject Elective Courses)

- SOFTWARE PROJECT MANAGEMENT
- ADVANCED JAVA
- WEB-SITE DEVELOPMENT- II (PHP, AJAX)
- MOBILE APPLICATION DEVELOPMENT
- WEBSITE FRAMEWORKS (JOOMLA, RUBY ON RAILS)
- INFORMATION SECURITY

As the technology is changing fast, new subject elective courses may be added by the authorities as and when required.

O. B.C.A. 4. The CBCS System :

All Programmes shall be run on **Choice Based Credit System (CBCS)**. It is an instructional package developed to suit the needs of students to keep pace with the developments in higher education and the quality assurance expected of it in the light of liberalization and globalization in higher education.

O. B.C.A. 5. Courses in Programmes :

The UG B.C.A. - programme consists of a number of courses. The term 'course' is applied to indicate a logical part of the subject matter of the programme and is invariably equivalent to the subject matter of a "paper" in the conventional sense. The following are the various categories of Courses suggested for the UG B.C.A. - programmes.

Elective Courses (ECs) (as listed in R. B.C.A. 6),
Foundation Courses (FCs) (as listed in R. B.C.A.6) ,
Core Courses (CCs), Subject Elective Courses (SECs) (as listed in R. B.C.A 5 .)

Details of number of courses in B.C.A. Semester System

Year	Semester	Core Courses	Subject Elective	Elective	Foundation	Total
First	I	7	-	1	1	9
	II	7	-	1	1	9
Second	III	7	-	1	1	9
	IV	7	-	1	1	9
Third	V	6	1	-	1	8
	VI	6	1	-	1	8
Total		40	2	4	6	52

The Elective Courses and Foundation Courses are meant to develop the students' communicative skill and Social or Subject Environment Awareness at the UG level.

Core Courses are the basic courses compulsorily required for each of the programme of study. These will be related to the subject of the programme in which the candidate gets his / her degree.

Core Structure for UG B.C.A. – CBCS Programme

Semester-I (FY)

COURSE NO.	COURSE TYPE	SUBJECT	CREDIT	
EC - 101	ELECTIVE	From list	2	Elective course ● LEARNING FROM WORLD LEADERS ● CULTURE AND CIVILIZATION ● HEALTH EDUCATION Foundation Course ● COMMUNICATION SKILLS (NO OPTION IS AVAILABLE)
FC- 101	FOUNDATION	From list	2	
CC-101	CORE	COMPUTER FUNDAMENTALS	3	
CC-102	CORE	PROBLEM SOLVING & C PROGRAMMING	3	
CC-103	CORE	INTRODUCTION TO INTERNET & HTML	3	
CC -104	CORE	BASICS OF MATHEMATICS	3	
CC-105	CORE	* CC-102 PRACTICAL	3	
CC-106	CORE	* CC-103 PRACTICAL	3	
CC-107	CORE	*PC SOFTWARE (PRACTICAL)	3	
TOTAL			25	

Semester-II (FY)

COURSE NO.	COURSE TYPE	SUBJECT	CREDIT	
EC-102	ELECTIVE	From list	2	Elective course ● ENVIRONMENTAL STUDIES (NO OPTION IS AVAILABLE) Foundation Course ● FUNDAMENTALS OF ACCOUNTING ● GENERAL ENGLISH
FC-102	FOUNDATION	From list	2	
CC-108	CORE	ADVANCED C PROGRAMMING	3	
CC-109	CORE	DYNAMIC HTML & XML	3	
CC-110	CORE	DATABASE MANAGEMENT SYSTEM – I	3	
CC-111	CORE	MATHEMATICAL FOUNDATION OF COMPUTER SCIENCE	3	
CC-112	CORE	* CC-108 PRACTICAL	3	
CC-113	CORE	* CC-109 PRACTICAL	3	
CC-114	CORE	*DATABASE SYSTEMS (PRACTICAL)	3	
TOTAL			25	

Semester-III (SY)

COURSE NO.	COURSE TYPE	SUBJECT	CREDIT	
EC-201	ELECTIVE	From list	2	Elective course
FC-201	FOUNDATION	From list	2	
CC-201	CORE	COMPUTER ORGANISATION AND ADVANCED MICROPROCESSORS	3	● SOFT SKILLS DEVELOPMENT
CC-202	CORE	DATA STRUCTURES	3	● CARBON CREDIT
CC-203	CORE	OBJECT ORIENTED CONCEPTS AND PROGRAMMING	3	● LEARNING FROM GREAT INDIAN THINKERS
CC-204	CORE	FUNDAMENTALS OF OPERATING SYSTEMS	3	● INTRODUCTION TO INDIAN CONSTITUTION
CC-205	CORE	STATISTICAL COMPUTING	3	Foundation Course
CC-206	CORE	*CC-202 PRACTICAL	3	
CC-207	CORE	* CC-203 PRACTICAL	3	
TOTAL			25	● PRINCIPLES OF MANAGEMENT
				● MASS COMMUNICATION

Semester-IV (SY)

COURSE NO.	COURSE TYPE	SUBJECT	CREDIT	
EC-202	ELECTIVE	From list	2	Elective course
FC-202	FOUNDATION	From list	2	
CC-208	CORE	DATABASE MANAGEMENT SYSTEM – II	3	● HISTORY OF GANDHIAN MOVEMENT
CC-209	CORE	VISUAL AND WINDOWS PROGRAMMING	3	● INTRODUCTION TO SCIENCE AND TECHNOLOGY
CC-210	CORE	CORE JAVA	3	● INTRODUCTION TO HUMANITIES
CC-211	CORE	OBJECT ORIENTED SYSTEM ANALYSIS AND DESIGN	3	● DISASTER MANAGEMENT
CC-212	CORE	* CC-208 PRACTICAL	3	● HISTORY OF GUJARAT AND ITS CULTURE
CC-213	CORE	* CC-209 PRACTICAL	3	Foundation Course
CC-214	CORE	* CC-210 PRACTICAL	3	
TOTAL			25	● SCIENTIFIC COMPUTING
				● E-GOVERNANCE
				● INTERPERSONAL SKILLS

Semester - V (TY)

COURSE NO.	COURSE TYPE	SUBJECT	CREDIT	
SEC-301	SUBJECT ELECTIVE	From list	3	Subject Elective ● SOFTWARE PROJECT MANAGEMENT (THEORY) ● ADVANCED JAVA (THEORY + PRACTICAL DEMO)
FC-301	FOUNDATION	From list	2	
CC-301	CORE	OPEN SOURCE OPERATING SYSTEM	3	
CC-302	CORE	ADVANCED VISUAL AND WINDOWS PROGRAMMING	3	
CC-303	CORE	DATA COMMUNICATION AND NETWORKING	3	
CC-304	CORE	*CC-301 PRACTICAL	3	
CC-305	CORE	*CC-302 PRACTICAL	3	
CC-306	CORE	* SOFTWARE DEVELOPMENT PROJECT – PART I (PRACTICAL)	5	
TOTAL			25	

Semester - VI (TY)

COURSE NO.	COURSE TYPE	SUBJECT	CREDIT	
SEC-302	SUBJECT ELECTIVE	From list	3	Subject Elective ● MOBILE APPLICATION DEVELOPMENT (THEORY) ● WEBSITE FRAMEWORKS (Joomla, RUBY ON RAILS) (THEORY + PRACTICAL DEMO)
FC-302	FOUNDATION	From list	2	
CC-307	CORE	WEB-SITE DEVELOPMENT-I (ASP.NET)	3	
CC-308	CORE	DATABASE ADMINISTRATION	3	● WEB-SITE DEVELOPMENT- II (PHP, AJAX) (THEORY + PRACTICAL DEMO)
CC-309	CORE	ECOMMERCE	3	● INFORMATION SECURITY
CC-310	CORE	* CC-307 PRACTICAL	3	Foundation Course ● COMPUTER GRAPHICS ● ENTERPRISE RESOURCE PLANNING ● CUSTOMER RELATIONSHIP MANAGEMENT
CC-311	CORE	* MULTIMEDIA TOOLS (PRACTICAL)	3	
CC-312	CORE	* SOFTWARE DEVELOPMENT PROJECT – PART II (PRACTICAL)	5	
TOTAL			25	

Selection of students to the EC :

- a. The Academic Committee of the Institute shall follow a selection procedure on a first come first served basis, fixing the maximum number of students, giving counselling to the students etc. to avoid overcrowding to particular course(s) at the expense of some other courses.
- b. The failed candidates in one EC are permitted to opt for another EC in another programme Or they are permitted to continue with the same EC.
- c. The Colleges shall provide all information relating to the ECs in each programme to all the students so as to enable them to choose their ECs.

O. B. C.A. 6.

The UGC recommended Certificate Course on Environmental Studies is to be offered in the second semester of all the UG Programmes as elective course compulsorily.

O. B.C.A. 7.

Extension and Extra-Curricular Activities : These should be carried out outside the class hours. e.g. NSS, NCC, participation in Youth Welfare activities/Sports at National or International Level, will be assigned two additional credits/year. (May be implemented later)

O. B.C.A. 8. Semesters :

An academic year is divided into two semesters. In each semester, courses are offered in 15 teaching weeks and the remaining 5 weeks are to be utilized for conduct of examinations and evaluation purposes. Each week has 30 working hours spread over 5 / 6 days a week.

O. B.C.A. 9. Credits :

The term 'Credit' refers to the weightage given to a course, usually in relation to the instructional hours assigned to it.

For instance, Four hour theory course per week is given Three Credits. Three Hour theory course per week in case of Foundation courses is given Two credits. Two Hour theory course per week in case of Elective courses is given Two credits. Three Hour theory course per week in case of Subject Elective courses is given Three credits. Three Instructional hour practical course per week is given Three Credits.

The total minimum credits, required for completing a UG B.C.A. programme is 150. The details of credits for individual components and individual courses are given in R. B.C.A. – 1 & 2.

O. B.C.A. 10. Course :

Each Course is to be designed variously under lectures / tutorials / laboratory or field work / seminar / practical training / assignments / term paper or report writing etc., to meet effective teaching and learning needs.

O. B.C.A. 11. Examinations :

- I. There shall be examinations at the end of each semester, for odd semesters in the month of October / November; for even semesters in April / May. A candidate who does not pass the examination in any course(s) shall be permitted to appear in such failed course(s) in the subsequent examinations to be held in October / November or April / May.
- II. A candidate should get enrolled/registered for the first semester examination. If enrollment/registration is not possible owing to shortage of attendance beyond condonation limit / regulations prescribed OR belated joining OR on medical grounds, the candidates are not permitted to move to the next semester. Such candidates shall re-do the semester in the subsequent turn of that semester as a regular student; However, a student of First Semester shall be admitted in the Second Semester, if he/she has successfully kept the term in first semester. To move in the Third Semester, a student has to clear all Credits of first semester. Like wise, to move in the Fourth Semester, a student is required to obtain all the credits of second semester. Similarly, after clearing all the credits of third semester, a student can move to the fifth semester and he/she shall be allowed to move to the sixth semester after clearing all the credits of fourth semester

For the movement in the said semester as described above, the candidate must have satisfactorily kept the term of the previous semester.

O. B.C.A. 12. Condonation :

Students must have 75% of attendance in each course for appearing in the examination. Students who have 74% to 65% of attendance shall apply for Condonation in the prescribed form with the prescribed fee(Rs. 100 per Course). Students who have 64% to 50% of attendance shall apply for Condonation in prescribed form with the prescribed fee (Rs. 100 per Course) along with the Medical Certificate. Students who have below 50% of attendance are not eligible to appear for the examination. It is further clarify that the students who have 75% or more of attendance shall be given Five out of Five marks in internal evaluation. Students (if condoned) who have 65% to 74% of attendance shall be given three to four marks in internal evaluation. Students if condoned who have to 50% to 64% of attendance shall be given one to two marks in internal evaluations (as per O.B.C.A. 14)

O. B.C.A. 13. Question Paper Pattern :

Question Paper shall have 5 questions. Question No.5 shall have objective type of questions to be asked from all the four units of the theory course by giving equal weightage. The other four questions should correspond to four units of each theory course. (as per R.B.C.A. 11)

O. B.C.A. 14. Evaluation :

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade points. Evaluation for each course shall be done by a continuous internal assessment (CIA) by the concerned course teacher as well as by an end semester examination and will be consolidated at the end of the course. The components for continuous internal assessment are :

One Tests	15 Marks (Second/repeat test for genuine absentees)
Assignments	10 Marks
Attendance	5 Marks
Total	30 Marks

Attendance shall be taken as a component for continuous assessment, although the students should put in a minimum of 75% attendance in each course. In addition to continuous evaluation component, the end semester examination, which will be a written-type examination of at least 3 hours duration, would also form an integral component of the evaluation. The ratio of marks to be allotted to continuous internal assessment and to end semester examination is 30 : 70. The evaluation of laboratory component, wherever applicable, will also be based on continuous internal assessment and on an end-semester practical examination.

O. B.C.A. 15. Passing Minimum :

The passing minimum for CIA (Continuous Internal Assessment) shall be 36% out of 30 marks (i.e. 11 marks), where the candidate is required to appear for the internal test at least once. Failed candidates in the Internal Assessment are permitted to improve their Internal Assessment marks in the subsequent semesters (2 chances will be given) by writing test and by submitting Assignments. The passing minimum for University or External Examinations shall be 36% out of 70 marks (i.e. 25 marks)

O. B.C.A. 16. Grading :

Once the marks of the CIA (Continuous Internal Assessment) and end-semester examinations for each of the courses are available, they will be added. The marks thus obtained will then be graded as per details provided in R. B.C.A. 3. From the First semester onwards the total performance within a semester and continuous performance starting from the first semester are indicated respectively by Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA). These two are calculated by the following formulae:

$$\text{SGPA} = \frac{\sum_{i=1}^n C_i G_i}{\sum_{i=1}^n C_i}$$

where 'C_i' is the Credit earned for the Course i in any semester ; 'G_i' is the Grade Point obtained by the student for the Course i and 'n' is the number of Courses passed in that semester.

CGPA = SGPA of all the Courses starting from the first semester to the current semester.

I. The SGPA and CGPA shall be calculated separately for the following three parts:

Part I : ECs

Part II : FCs

Part III : CCs, SECs

Part IV : Extension and Extra Curricular Activities

II. The SGPA and CGPA shall be calculated only when the student has successfully cleared all the courses with the assumption that the total credits in each semester are the same.

O. B.C.A. 17. Classification of Final Results :

- I. For each of the three parts, there shall be separate classification on the basis of CGPA as indicated in R. B.C.A. 4.
- II. For purposes of declaring a candidate to have qualified for the Degree of Bachelor of Computer Applications in the First class/Second class/Pass class or First class with Distinction, the marks and the corresponding CGPA earned by the candidate in Part III alone will be the criterion, provided he / she has secured the prescribed passing minimum in ECs and FCs. It is further provided

that the candidate should have scored the First/Second Class separately in both the grand total and end Semester (External) examination.

- III. Grade in Part IV, Extension and Extra Curricular Activities shall be shown separately and it shall not be taken into account for classification of class.
- IV. The marks for the course as elective (compulsory) course of Sem – II on “Environmental Studies” will be given in a separate certificate by the college as per the guidelines of UGC , MHRD & the Hon’ble Supreme Court of India. The College shall charge Rs.100/-, separately to meet the expenditure incurred towards the completion of this course, as per UGC/MHRD guide lines.
- V. Internal and end semester examination for Elective courses and Foundation courses shall be conducted by the respective colleges.

O. B.C.A. 18. Conferment of the Bachelor’s Degree :

- I. A candidate shall be eligible for the conferment of the Bachelor of Computer Applications (B.C.A. honours.) only if he / she has earned the minimum required credits for the programme prescribed therefor (i.e. 150 credits).
- II. A candidate shall be required to pay Rs.500/- towards the conferment of the Degree of B.C.A., which shall be enhanced by a 10% increase every three years and rounded off to the next 10/- rupees stage.

O. B.C.A. 19. End Semester Examinations :

- I. The University shall conduct the External (End Semester) Examinations for all the Semesters. Alternatively, the university shall conduct the External Examination for semester V and VI only and the Internal as well as the External Examinations for the Semester I to IV shall be conducted by the concerned Colleges themselves. However the common format of question paper and marksheet suggested and / or prepared by the University has to be followed by all the Colleges for Sem. I to IV External Examinations.
- II. The examination fees for all end semester examinations shall be Rs.500/-(Rs.250 for theory-+ Rs.250 for practicals/ term work/ project etc.) for all subjects.(Which shall be enhanced by a 10% increase every three years and rounded off to a next 10/- rupees stage.)

O. B.C.A. 20. Self-Financing Stream :

The above Ordinances shall be applicable also for the candidates undergoing the programmes in Self-Financing Stream. The above Ordinances shall be applicable to External Candidates also.

O. B.C.A. 21. Grievance Redressal Committee :

The College shall form a Grievance Redressal Committee for each course in each department with the Course Teacher and the HOD as the members. This Committee shall solve all grievances relating to the Internal Assessment marks of the students.

O. B.C.A. 22. Transfer of Credits :

In case of Elective courses, Students are permitted to transfer their course credits from Centre for Distance Education (CDE) of any University to Regular Stream and vice-versa. Similarly, they are also permitted to transfer their course credits from other state or central universities after verification of eligibility criteria.

O.B.C.A. 23. Revision of Ordinances, Regulations and Curriculum :

The University may from time to time revise, amend and change the Ordinances, the Regulations and the Curriculum, if found necessary.

The existing ordinances for passing the examination/ course for annual pattern of programs also remain effective for the CBCS program.

R. B.C.A. 1 – Details on the number of courses and credits per course

Sr. No.	Study Components	Number of Courses	B.C.A.		Total Weekly hours/180 weekly hours
			Credits per Course	Total Credits	
1	Elective Course (EC)	4	2	8	8
2	Foundation Course (FC)	6	2	12	18
3	Core Course (CC) (Theory) Practicals	22+1 15+2	3 3+5	69 45+10	91(88+3) 57(45+12)
4	Subject Elective Course(SEC)	2	3	6	6
		52		150	180

Note :

(I) Total weekly hours 180 includes 8 hours teaching of Elective Courses, which may/shall be carried out by the candidate inter or intra colleges ; so actual weekly hours for the college shall be $180 - 8 = 172$ weekly hours.

(II) The workload taken up by the inhouse faculty of the college for conducting elective courses per Department/Institute, shall be counted as actual workload

R. B.C.A. 2 - UG B.C.A. Programmes – Course Structure under CBCS

Sem.	Course	Instru. Hours/ Week	Credit	Exam Hours	Marks		
					Int.	Extn.	Total
1	Elective (EC) 101	2	2	3	100	--	100
	Foundation (FC) 101	3	2	3	100	--	100
	Core Course (CC-101)	4	3	3	30	70	100
	CC – 102	4	3	3	30	70	100
	CC – 103	4	3	3	30	70	100
	CC – 104	4	3	3	30	70	100
	CC – 105	3	3	3	30	70	100
	CC – 106	3	3	3	30	70	100
2	Elective (EC) 102	2	2	3	100	--	100
	Foundation (FC) 102	3	2	3	100	--	100
	Core Course (CC-108)	4	3	3	30	70	100
	CC – 109	4	3	3	30	70	100
	CC – 110	4	3	3	30	70	100
	CC – 111	4	3	3	30	70	100
	CC – 112	3	3	3	30	70	100
	CC – 113	3	3	3	30	70	100
3	Elective (EC) 201	2	2	3	100	--	100
	Foundation (FC) 201	3	2	3	100	--	100
	Core Course (CC-201)	4	3	3	30	70	100
	CC – 202	3	3	3	30	70	100
	CC – 203	4	3	3	30	70	100
	CC – 204	4	3	3	30	70	100
	CC – 205	4	3	3	30	70	100
	CC – 206	3	3	3	30	70	100
4	Elective (EC) 202	2	2	3	100	--	100
	Foundation (FC) 202	3	2	3	100	--	100
	Core Course (CC-208)	4	3	3	30	70	100
	CC – 209	4	3	3	30	70	100
	CC – 210	4	3	3	30	70	100
	CC – 211	4	3	3	30	70	100
	CC – 212	3	3	3	30	70	100
	CC – 213	3	3	3	30	70	100
5	CC – 214	3	3	3	30	70	100
	Subject Elective (SEC)301	3	3	3	30	70	100
	Foundation (FC) 302	3	2	3	100	--	100
	Core Course (CC-301)	4	3	3	30	70	100
	CC – 302	4	3	3	30	70	100
	CC – 303	4	3	3	30	70	100
	CC – 304	3	3	3	30	70	100
6	CC – 305	3	3	3	30	70	100
	CC – 306	6	5	3	30	70	100
	Subject Elective (SEC)302	3	3	3	30	70	100
	Foundation (FC) 302	3	2	3	100	--	100
	Core Course (CC-307)	4	3	3	30	70	100
	CC – 308	4	3	3	30	70	100
	CC – 309	4	3	3	30	70	100
6	CC – 310	3	3	3	30	70	100
	CC – 311	3	3	3	30	70	100
	CC – 312	6	5	3	30	70	100

R. B.C.A. 3- Grading of the Courses

Percentage / Marks (Normalized)	Grade Points	Grade	Description
Above 85	8.5 – 10.0	O+	Outstanding
70 – 84.99	7.0 – 8.49	O	Excellent
60 – 69.99	6.0 – 6.99	A	Very good
55 – 59.99	5.5 – 5.99	B+	Good
48 – 54.99	4.8– 5.49	B	Fair
36 – 47.99	3.6 – 4.79	C	Average
Below 36	0.0	D (Dropped)	Dropped or Fail

R. B.C.A. 4- Final Result

CGPA From-to	Letter Grade	Classification of Final Result
8.5-10	O+	First class with Distinction
7.0-84.99	O	
6.0-6.99	A	First Class
5.5-5.99	B+	Higher Second Class
4.8-5.49	B	Second Class
3.6-4.79	C	Pass Class
Below 3.6 =0.0	D	Dropped or Fail

R. B.C.A. 5 - U. G. B.C.A Programme – Subject Elective Courses (SECs)

- ⇒ SOFTWARE PROJECT MANAGEMENT (THEORY)
- ⇒ ADVANCED JAVA (THEORY + PRACTICAL DEMO)
- ⇒ WEB-SITE DEVELOPMENT- II (PHP, AJAX) (THEORY + PRACTICAL DEMO)
- ⇒ MOBILE APPLICATION DEVELOPMENT (THEORY)
- ⇒ WEBSITE FRAMEWORKS (JOOMLA, RUBY ON RAILS)(THEORY + PRACTICAL DEMO)
- ⇒ INFORMATION SECURITY (THEORY)

Note: The board of study of the subjects may add or delete the titles of SECs from the list, subject to final approval of academic as well as executive council of the Gujarat University.

R.B.C.A. 6 – (I) - U. G. B.C.A. Programme – Elective Courses (ECs)

SEMESTER - I

- ⇒ LEARNING FROM WORLD LEADERS
- ⇒ CULTURE AND CIVILISATION
- ⇒ HEALTH EDUCATION

SEMESTER – II

- ⇒ ENVIRONMENTAL STUDIES

SEMESTER – III

- ⇒ SOFTSKILLS DEVELOPMENT
- ⇒ CARBON CREDIT
- ⇒ LEARNING FROM GREAT INDIAN THINKERS
- ⇒ INTRODUCTION TO INDIAN CONSTITUTION

SEMESTER – IV

- ⇒ HISTORY OF GANDHIAN MOVEMENT
- ⇒ INTRODUCTION TO SCIENCE AND TECHNOLOGY
- ⇒ INTRODUCTION TO HUMANITIES
- ⇒ DISASTER MANAGEMENT
- ⇒ HISTORY OF GUJARAT AND ITS CULTURE

(II) - U. G. B. C.A. Programme – Foundation Courses (FCs)

SEMESTER – I

- ⇒ COMMUNICATION SKILLS

SEMESTER – II

- ⇒ FUNDAMENTALS OF ACCOUNTING
- ⇒ GENERAL ENGLISH

SEMESTER – III

- ⇒ PRINCIPLES OF MANAGEMENT
- ⇒ MASS COMMUNICATION

SEMESTER – IV

- ⇒ SCIENTIFIC COMPUTING
- ⇒ E-GOVERNANCE
- ⇒ INTERPERSONAL SKILLS

SEMESTER – V

⇒ OPERATION RESEARCH

⇒ MANAGEMENT INFORMATION SYSTEM

SEMESTER – VI

⇒ COMPUTER GRAPHICS

⇒ ENTERPRISE RESOURCE AND PLANNING

⇒ CUSTOMER RELATIONSHIP MANAGEMENT

Note: The course curricula or reference materials for the elective as well as foundation courses shall be prepared by the concerned board of studies of the subjects and such courses shall only be made available to the students. However, for the compulsory elective course for the second semester i.e. Environmental Studies, the reference book prepared by E.Bharucha for U.G.C shall only be used as a text by all the students of B.C.A. programme.

R. B.C.A. 7. – Course Structure :

- I. The B.C.A. programme is full time three years Under Graduate Programme. The medium of instruction shall be English.
- II. The programme consists of Six Semesters-Semester I and II in the First Year of the Programme , Semesters III and IV in the Second Year and V and VI Semesters in the Third Year of the programme.
- III. The total programme consists of 150 credits equally divided into 25 credits per semester.
- IV. There would be different elective areas of specialization as per syllabus of respective subject.
- V. The programme consists of the following types of courses
 - (i) Core courses: common for all students.
 - (ii) Elective course & SECs: The institute can offer as per the available infrastructure.
 - (iii) Foundation courses for all students as per institute's available infrastructure.

R. B.C.A. 8. - Clearing and carrying forward the Semesters :

Rules for carrying forward the semesters are given below:

- I. A candidate must have at least 75% overall attendance in the programme (except O B.C.A. 12) and should have satisfactory performance in class participation of each course and must have appeared in internal written test to be eligible for grant of term.
- II. In case, a candidate obtains D in any one course/ all courses in the first semester, he/she shall be allowed to continue to proceed to the second semester provided he/she has kept his/her terms of the first semester successfully.
- III. The candidate shall be allowed to proceed to the third semester only after clearing all the courses of the first semester.
- IV. In case, a candidate obtains D in any one course/ all courses in the second semester, he/she shall be allowed to continue to proceed to the third semester provided he /she has kept his/her term of the second semester successfully.
- V. The candidate shall be allowed to proceed to the fourth semester only after clearing all the courses of the second semester.
- VI. In case a candidate obtains D in any one course/ all courses in the third semester, he/she shall be allowed to continue to proceed to the fourth semester provided he/she has kept his/her term of the third semester successfully. Similarly a candidate is allowed to move in the fifth semester provided he/she has kept his/her term of the fourth semester successfully and a candidate is allowed to move in the sixth semester after he/she has successfully kept the term of fifth semester even if he/she has failed in any one or all courses of the fifth semester .
- VII. The candidate shall be eligible for the award of the degree after successful clearance of all the courses of semester I, II, III,IV,V & VI by the Sixth semester examination of the third year programme or till expiry of registration/enrolment.
- VIII. Whenever a candidate fails in a course due to failure of obtaining minimum marks in the internal component of the examination, the marks obtained in attendance and class participation shall be carried forward for the consideration of the repeat examination. The student has to appear in the internal test only to complete the requirement of the internal assessment.

R. B.C.A. 9 - Assessment and Evaluations :

- I. Each course will be assessed on basis of 100 marks. The marks would be divided between internal and external assessment.
- II. There shall be one end semester external examination of each course in every semester consisting of 70% (70 marks) weightage in theory and practical courses.
- III. Each Theory & Practical course shall have internal assessment of 30% weightage based on the following
 - Internal written test - 15% (15 marks)
 - Attendance - 05% (5 marks)
 - Assignment- 10% (10 marks)
- IV. Every student will be required to pass in the external examination and internal assessment separately in each course.
- V. The minimum passing standard will be 36% for the external and internal component of each course, i.e. 25 marks out of 70 (external -36% of 70 marks) and 11 marks out of 30 (internal -36% of 30 marks).
- VI. (A) The grades for each course would be decided on the basis of the percentage marks obtained in the end-semester external and internal examinations as per following table:

Percentage / Marks (Normalized)	Grade Points	Grade	Description
Above 85	8.5 – 10.0	O+	Outstanding
70 – 84.99	7.0 – 8.49	O	Excellent
60 – 69.99	6.0 – 6.99	A	Very good
55 – 59.99	5.5 – 5.99	B+	Good
48 – 54.99	4.8– 5.49	B	Fair
36 – 47.99	3.6 – 4.79	C	Average
Below 36	0.0	D (Dropped)	Dropped or Fail

VI.(B) Final Result :

CGPA From-to	Letter Grade	Classification of Final Result
8.5-10	O+	First class with Distinction
7.0-8.49	O	
6.0-6.99	A	First Class
5.5-5.99	B+	Higher Second Class
4.8-5.49	B	Second Class
3.6-4.79	C	Pass Class
0.0-0.0	D	Dropped or Fail

Note : The student must score class separately in both end semester examination and in grand total.

VII.The semester grade point average (SGPA) will be calculated as an weighted average of all the grade point of the semester courses. That is Semester grade point average (SGPA) = (sum of grade points of all six courses of the semester)/ total credit of the semester as per example given below :

Course No.	Credit	Marks out of 100(%)	Grade	Grade Point	Credit Grade point
EC- 101	2	44	C	5.4	11.6
FC-101	2	44	C	5.4	10.8
CC-101	3	65	A	6.5	26
CC-102	3	60	A	6.0	18
CC-103	3	62	A	6.2	24.8
CC-104	3	57	B+	5.7	17.1
CC-105	3	55	B+	5.5	22
CC-106	3	72	O	7.2	21.6
CC-107	3	58	B+	5.8	10.2
Total	25				139.7
Total Credits Without FC & EC	21				

Examples : Conversion of marks into grade points

$$65=60+5=6.0+5 \times (0.99/9.99)=6.0+5 \times 0.1=6.0+0.5=6.5$$

$$57=55+2=5.5+2 \times (0.49/4.99)=5.5+2 \times 0.1=5.5+0.2=5.7$$

$$72=70+2=7.0+2 \times (1.49/14.99)=7.0+2 \times 0.1=7.0+0.2=7.2$$

$$44=36+8=3.6+8 \times (1.19/11.99)=3.6+8 \times 0.1=3.6+0.8=4.4$$

VIII. SEMESTER GRADE POINT AVERAGE (SGPA) = Total Credit Grade
Points Without FCs and ECs = $139.7 / 21 = 6.65$

SGPA Sem. I = 6.65

SGPA Sem. II = 5.63

SGPA Sem. III = 6.01

SGPA Sem. IV = 5.50

SGPA Sem. V = 5.61

SGPA Sem. VI = 5.72

Total SGPA = 35.12

Cumulative Grade Point Average (CGPA) = $35.12 / 6 = 5.85$

CGPA = 5.85 Grade = B+ Class = Higher Second Class

CGPA X 10 = Percentage e.g. $5.85 \times 10 = 58.5 \%$

Note:

- (1) SGPA is calculated only if the candidate passes in all the courses i.e. get minimum C grade in all the courses.
- (2) CGPA is calculated only when the candidate passes in all the courses of all the semesters

IX. The cumulative grade point average will be calculated as the average of the SGPA of all the six semesters, as shown above.

X. The cumulative grade point average will be calculated as the average of the SGPA of all the six semesters, as shown above.

XI. For the award of the class CGPA shall be calculated on the basis of :

(a) End Semester External Examination Marks

AND

(b) Total Marks obtained (End Semester External Examination Marks + (Marks for internal assessment) for each course. The final Class for B.C.A. Degree shall be awarded on the basis of lowest CGPA of (a) & (b) of fifth & sixth semester examinations. However, the marks of elective courses as well as foundation courses shall not be counted for the award of class, provided a candidate has secured at least minimum passing marks in Elective & Foundation courses both in internal & external examinations.

R. B.C.A. 10 – Syllabi Revision :

- I. Syllabi of every course should be preferably changed after every two years. For example a syllabus changed in 2011 must be revised in 2013-2014.
- II. Revised Syllabi of each semester should be implemented in sequential way.
- III. In courses where units/topics relate to governmental provisions, regulations or laws, changes to accommodate the latest developments are automatic under information to the Registrar and Vice-Chancellor of Gujarat University.
- IV. All formalities for revisions in the syllabi should be completed before the end of the 2nd/4th semester for implementation in the next academic year.
- V. During every revision, up to twenty percent of the entire syllabi of each course can be changed to ensure that students who have studied the old syllabi can also appear for examinations in the revised syllabi.
- VI. In case, the syllabus of any course is carried forward without any change, it shall be included in the revised syllabi.
- VII. New / Additional areas and courses of elective optional can be introduced on the basis of recommendations of the board of studies.

R. B.C.A. 11 – Format of Question paper for 4 Units :

Q.1 FROM UNIT – I	A OR A	7 MARKS
	B OR B	7 MARKS
Q.2 FROM UNIT – II	A OR A	7 MARKS
	B OR B	7 MARKS
Q.3 FROM UNIT – III	A OR A	7 MARKS
	B OR B	7 MARKS
Q.4 FROM UNIT - IV	A OR A	7 MARKS
	B OR B	7 MARKS
Q.5	14 Questions of 1 mark each. There should be atleast 3 questions of 1 mark each from all the 4 units, remaining 2 questions can be from any unit.	

Note:

- a. Students should not be asked to write complete programs in theory examination paper. Instead questions on features of the language/topic should be asked.
- b. Questions on writing of programs are most appropriate for practical examination.
- c. Wherever found necessary, a question of 7 marks can be split into 2 or 3 sub questions considering weightage of topic and time allotted for answering such questions.