



MAHARAJA KRISHNAKUMARSINHJI BHAVNAGAR UNIVERSITY
NAAC Accreditation Grade B
(With effect from Academic Year: 2016-17)

Structure for B.C.A. – CBCS Programme

Semester-II (FY)

COURSE NO.	COURSE TYPE	SUBJECT	CREDIT
BCA-EC-201	ELECTIVE	Environmental Science – II	02
BCA-FC-201	FOUNDATION	Introduction to English Language and Literature - II	02
BCA-CC-201	CORE	Information Technology in Business	03
BCA-CC-202	CORE	Web Designing	03
BCA-CC-203	CORE	Advanced C Programming	03
BCA-CC-204	CORE	Statistics	03
BCA-CC-205	CORE	Practical (Based on BCA-CC-202 & BCA-CC-203)	12
TOTAL			28

Internal Continuous Evaluation:

1. There will be Internal Continuous Evaluation in Theory papers of Core Course.
2. There will be 30 marks for Assignments in Course No: BCA-CC-201, BCA-CC-202, BCA-CC-203, BCA-CC-204



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B.C.A.	Course: Environmental Science – II	Course No: BCA-EC-201
Semester: 02	Type of Course: Elective Course	
Marking Scheme: External Examination: 100 + Internal Examination: 00 = 100 Marks		
Credits: 02	Theory Sessions per Week: 02	Teaching Hours: 30 Hours

Unit	Detailed Syllabus	Teaching Hours	Marks/Weight
Unit-1	Climate change	06	20
	<ul style="list-style-type: none">– Global warming– Case study of global warming– Acid rain and Case study of Acid rain– Ozon layer depletion and Case study of Ozon layer depletion		
Unit-2	Pollution	06	20
	<ul style="list-style-type: none">– Air pollution, Water pollution, Noise pollution– Pollution case study– Minamata disease– Ground water pollution, Pesticides pollution, River pollution in India.		
Unit-3	Disaster Management	06	20
	<ul style="list-style-type: none">– Floods, Earthquake, Cyclones, Landslide		
Unit-4	Social issues and the environment	06	20
	<ul style="list-style-type: none">– Unsustainable to sustainable development– Water conservation :– Rain water harvesting– Water shed management– The air (prevention and control of pollution) Act– The water (prevention and control of pollution) Act– The wildlife (protection) Act– Using an environmental calender of activities		
Unit-5	Population Growth and the Environment	06	20
	<ul style="list-style-type: none">– Population growth variation among nation– Population explosion : family welfare programme– Methods of sterilisation– Urbanization– Urban poverty and environment– Environment and human health– Bhopal gas incident– Climate and health– Infectious disease– Globalization and Infectious disease– Water born disease– Water scarecity diseases– Diarrhea– Cancer and the environment		

Reference book: Paryavaran Adhyayan – University Grants Commission Oriental longman private limited.



B.C.A.	Course: Introduction to English Language and Literature – II	Course No: BCA-FC-201
Semester: 02	Type of Course: Foundation Course	
Marking Scheme: External Examination: 100 + Internal Examination: 00 = 100 Marks		
Credits: 02	Theory Sessions per Week: 02	Teaching Hours: 30 Hours

Unit	Detailed Syllabus	Teaching Hours	Marks/Weight
Unit-1	Study Poems and Prose	06	20
	Daybreak Henry Longfellow Beautiful Things Ellen P. Allerton The Sun and the Planets C. Jones (Short notes 2/3 each in 500 words approximately)		
Unit-2	Study Poems and Prose	06	20
	Climbing Everest B. Mathur Gold Frame R. K. Narayan The Tiger Smiled Jim Corbet (Short notes 2/3 each in 500 words approximately)		
Unit-3	Improve Business English	06	20
	Use of Internet Chapter 1 only from 50 Ways to Improve Business English Using the Internet Introduction of email		
Unit-4	Professionalism	06	20
	personal and Food Etiquette Professions and occupations		
Unit-5	Grammar	06	20
	Introduction of Verb Forms Introduction of Modal Auxiliary Verbs		

Reference Books

1. Practical English Prose and Verse (Ed) G. E. B. Coe, Orient Longman, 1981
2. Learning English, A Rama Krishna Rao, Orient Blackswan, 2008
3. Hundred Poems, Lok Milap Publication, Bhavnagar, 1994
4. Green, David, Contemporary English Grammar Structures and Composition.
5. Modern Short Stories, (Ed) Kha, M. Q., OUP, 1999
6. Issac, Anish, Amazing English, Anish Issac's Publishing House, Kerala, Mac Millan, 1971
8. Poetry for Pleasure, (Ed)Maung Kaung, OUP, New Delhi, 2005



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B.C.A.	Course: Information Technology in Business	Course No: BCA-CC-201
Semester: 02	Type of Course: Core Course	
Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100 Marks		
Credits: 03	Theory Sessions per Week: 03	Teaching Hours: 45 Hours

Unit	Detailed Syllabus	Teaching Hours	Marks/Weight
Unit-1	Information System	09	14
	<ul style="list-style-type: none"> - Information Systems and Technologies - Importance of Information Systems in Businesses - Components of an Information System - Information System Resources people, hardware, software, data, network - Gaining strategic advantage through IT - Managerial Challenges of IT 		
Unit-2	Functional Business System	09	14
	<ul style="list-style-type: none"> - Introduction to Information Systems: - Manufacturing, Marketing, Accounting, Human Resources Management, Financial Management, Inventory Management. - Introduction to Enterprise Resource Planning. - Enterprise Applications:-Enterprise Resource Planning, Supply Chain Management, Customer Relationship Management 		
Unit-3	Introduction to E-Commerce	09	14
	<ul style="list-style-type: none"> - Definition, communication perspective, Business Process Perspective, Service Perspective - Classification by nature of transaction : B2B, B2C, C2C, C2B, Non Business EC, Intra-Business EC - Classification of EC Applications: Electronic Market, Inter Organizational System, Customer Services - Benefits to Organizations, Consumers and Society - Limitations of EC, Framework of EC, Future of EC 		
Unit-4	E-Commerce Business and Electronic Market Places	09	14
	<ul style="list-style-type: none"> - Introduction, Eight Key Ingredients of a Business Model, Major B2C and B2B Business Models, Introduction to M-Commerce. - Market space Components, Types of Electronic Markets (Electronic Storefronts, Electronic Malls, Types of Stores and Malls) - Portals and their types, Role of Intermediaries in E-markets, E-market Success Factors, Competitive Factors, Impact of E-Market on Organizations (Marketing, HR, Manufacturing, Finance and Accounting) 		
Unit-5	Customer Relationship Management (CRM)	09	14
	<ul style="list-style-type: none"> - CRM : Meaning, types of CRM, Benefits and Limitations of CRM, Issues in CRM Implementation, Classifications of CRM, Applications, One-to-One Marketing (Personalization, Collaborative Filtering, Customer Loyalty, Trust) 		

Reference Books

1. _____ ata McGraw-Hill, 2004
2. Jessup L., Valacich J. : Information Systems Today Why IS Matters, Pearson Education, 2006
3. Electronic Commerce: A managerial Perspective – Efraim Turban, Jae Lee, David King, H Michael Chung (Pearson Education.)
4. E-Commerce Business, Technology, Society Kenneth C Laudon, Carol Guercio Traver (Pearson Education) –



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B.C.A.	Course: Web Designing	Course No: BCA-CC-202
Semester: 02	Type of Course: Core Course	
Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100 Marks		
Credits: 03	Theory Sessions per Week: 03	Teaching Hours: 45 Hours

Unit	Detailed Syllabus	Teaching Hours	Marks/Weight
Unit-1	Internet Fundamental	09	14
	Basic concept of Internet, Intranet and Extranet, Internet Applications (WWW,E-mail, FTP & FTP Commands, IRC ,Web Chat, BBS, News Group, UseNet, NetMeet g) <small>Introduction to TCP/IP, DNS, Search Engine and it's working.</small> Email Protocol (SMTP, POP, IMAP) Overview of Internet Security (Firewall and SSL)		
Unit-2	HTML	09	14
	Introduction to HTML Formatting of Text Hyperlinks, working with images, Image Map, List, Tables and Frame Working with Form (GET-POST Methods) and Form Tags. Various Forms Controls		
Unit-3	DHTML	09	14
	Introduction to style sheet and <STYLE> Font Attributes, color Attributes, Text Attributes, Border Attributes, Margin Attributes, List Attributes Working with class, Implement external style sheet and <div> Tags		
Unit-4	JavaScript	09	14
	Introduction of JavaScript, Variable and data types of JavaScript Decision Making statements , Control structure , Operators of Java Script, Handling event by using Java Script, Message Box in Java Script(Confirm, Alert, Prompt) Validation using Java Script, Built in Objects (String, Math, and Date)		
Unit-5	CSS	09	14
	Introduction, Syntax structure, selectors, background, text, fonts, link, lists , tables, border, outline, margin, padding, align, navigation bar, image gallery, image opacity, etc		

Reference Books

1. Douglas Comer:- Internet - An Introduction Prentice-Hall of India Pvt. Ltd
2. Ivan Bayross:- WEB enabled Comm. Appli. Develop. using HTML, DHTML, JAVASCRIPT
3. Thomas A. Powell:- The Complete reference HTML and CSS
4. Danny GoodMan:- Java Script Bible



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B.C.A.	Course: Advanced C Programming	Course No: BCA-CC-203
Semester: 02	Type of Course: Core Course	
Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100 Marks		
Credits: 03	Theory Sessions per Week: 03	Teaching Hours: 45 Hours

Unit	Detailed Syllabus	Teaching Hours	Marks/Weight
Unit-1	Structure and Union	09	14
	Structure Declaration and initialization Creating variable and accessing data members Array within structure and array of structure Structure within structure Union Passing structure and union as function argument		
Unit-2	Pointer	09	14
	Declaration, initialization and arithmetic of pointers Pointer to array and structures Pointers and strings Pointers as function arguments Functions returning pointers		
Unit-3	Dynamic memory allocation and introduction to linked list	09	14
	Introduction to dynamic memory allocation, malloc() and calloc() functions, Introduction to linked list, comparison with array, Creation of singly linked list Various operations on singly linked list Singly circular linked list		
Unit-4	File Management	09	14
	Introduction to files and its significance File pointer, declaring file pointer Opening and closing a file – fopen(), fclose() I/O operations on files, I/O functions : fread(), fwrite(), fscanf(), fprintf(), fgetc(), fputc(), fgets(), fputs(), fseek(), ftell()		
Unit-5	Pre-processors and Bit-wise operators	09	14
	Introduction to pre-processors : #define, #include Bit-wise operators Applications of bit-wise operators		
Reference Books			
1. Programming In ANSI C By E. Balagurusamy, TMH Publication. 2. Understanding Pointers in C By Yashwant Kanitkar, BPB Publication 3. Programming with C, Schaums Series, TMH Publication.			



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B.C.A.	Course: Statistics	Course No: BCA-CC-204
Semester: 02	Type of Course: Core Course	
Marking Scheme: External Examination: 70 + Internal Examination: 30 = 100 Marks		
Credits: 03	Theory Sessions per Week: 03	Teaching Hours: 45 Hours

Unit	Detailed Syllabus	Teaching Hours	Marks/Weight
Unit-1	Measure of Central Tendency	09	14
	Definition, Ungrouped Data, Grouped Data (Discrete and Continuous Grouped data). Mean: Arithmetic Mean, Geometric Mean and Harmonic Mean for ungrouped data, Combined Mean and Weighted Mean. Median, Quartiles, Deciles, Percentiles and Mode.		
Unit-2	Measure of Dispersion	09	14
	Definition, Different measure of dispersion. Quartile Deviation, Mean Deviation, Standard Deviation, Combined Standard Deviation, Coefficient of Variation.		
Unit-3	Correlation and Regressi	09	14
	negative correlation), Correlation Coefficient. Karl Pearson s Correlation:-Definition, Types of Correlation (positive d Method and Spearman Rank correlation coefficient method. Regression: Linear regression, regression line of y on x and regression line of x on y. Difference between Correlation and Regression.		
Unit-4	Probability	09	14
	Probability:-Random Experiment, Sample Space, Event, Mutually exclusive event, Exhaustive event, Equally likely event and probability Classical definition. (Simple examples of Probability).		
Unit-5	Probability Distribution	09	14
	Binomial distribution Poisson Distribution Normal Distribution		
Reference Books			
1. Gupta and Gupta: Business Statistics, Sultan Chand and Sons.			



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B.C.A.	Course: Practical	Course No: BCA-CC-205
Semester: 02	Type of Course: Core Course	
Marking Scheme: External Examination: 100 + Internal Examination: 00 = 100 Marks		
Credits: 12	Practical Sessions per Week: 12	Teaching Hours: 180 Hours

Unit	Detailed Syllabus	Marks/ Weight
Unit-1	Practical Problem from BCA-CC-202	50
Unit-2	Practical Problem from BCA-CC-203	50