

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY**CIRCULAR NO.SU/Commerce & Management/ V Sem./00/2020**

It is hereby inform to all concerned that, on the recommendation of the Dean, Faculty of Commerce & Management, the Hon'ble Vice-Chancellor in his emergency powers under section-12(7) of the Maharashtra Public Universities Act, 2016 has accepted the syllabi of **B.Com., BBA & BCA V Sem. & MPM I Sem.** under Choice Based Credit and Grading System on behalf of the Academic Council to be applied from the Academic Year 2020-2021 and onwards. The said syllabi are also available on bamu.ac.in on University website.

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.

REF.NO. SU/ COMMERCE/2020-21/

13429-38*

Date:- 20-07-2020.

*

[Signature]
Deputy Registrar,
Syllabus Section.

Copy forwarded with compliments to :-

- 1] **The Principals, affiliated concerned Colleges, Dr. Babasaheb Ambedkar Marathwada University.**
- 2] **The Director, University Network & Information Centre, UNIC, with a request to upload this Circular along with the said syllabi on University Website.**

Copy to :-

- 1] The Director, Board of Examination & Evaluation,
- 2] **The Section Officer, [B.Com. Unit] Examination Branch,**
- 3] **The Programmer [Computer Unit-1] Examinations,**
- 4] **The Programmer [Computer Unit-2] Examinations,**
- 5] The In-charge, [E-Suvidha Kendra], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr. Babasaheb Ambedkar Marathwada University.
- 6] The Public Relation Officer,
- 7] The Record Keeper.

**DR. BABASAHEB AMBEDKAR
MARATHWADA UNIVERSITY,
AURANGABAD.**



Curriculum of
BACHELOR OF COMPUTER APPLICATION
(BCA)
IIIIRD YEAR
FIFTH SEMESTER
under Choice Based Credit & Grading System

[Effective from the Academic Year 2020-21 & onwards]


DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD.


FACULTY OF COMMERCE & MANAGEMENT


Syllabus - Bachelor of Computer Application (BCA)


Choice Based Credit System (CBCS)

Semester & Credits	Core Course [04]	Ability Enhancement Compulsory Courses [AEC] [01]	Discipline Specific Elective [DSE] [01]
V Credit 24	1. Management Accounting 2. SQL 2017 3. VB 4. Organizational Behavior	1. Software Engineering	Elective Paper [Any One] 1. Banking & Insurance OR 2. Retail Management
Total Credits 24	No. of Credits : 16	No. of Credits : 04	No. of Credits : 04


Prof. W.K. Sarwade (Dean & BOS Chairman) 07/07/2020


Prof. Syed Azharuddin (Chairman BOS) 07/07/2020

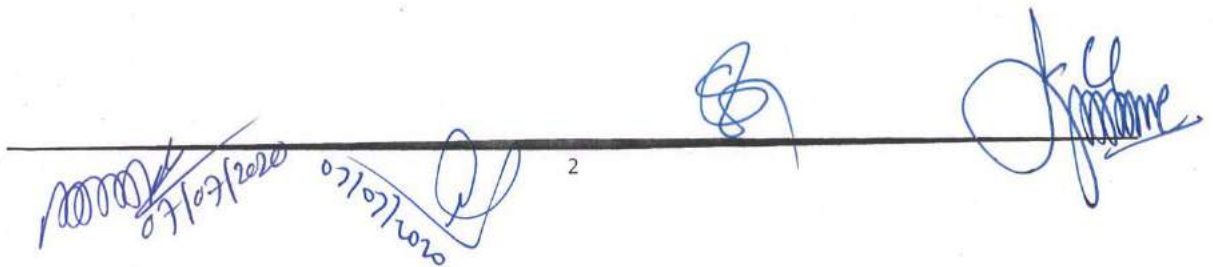

Prof. Satyaprem Ghumre (Chairman BOS)


Dr. Kishor Salve (Chairman BOS)

Structure of B. C. A. Fifth Semester

Choice Based Credit Grading System (CBCS) 2020 - 21

Paper Number	Subject/ Title of the Paper	Course	Weekly		Credits		IA	UA	Total Marks	Duration of Theory Exam
			Th	Pr	Th	Pr				
XXV	Management Accounting	Core Course	4	-	4	-	20	80	100	3 Hrs
XXVI	SQL 2017	Core Course	4	-	4	-	20	80	100	3 Hrs
XXVII	VB	Core Course	4	-	4	-	20	80	100	3 Hrs
XXVIII	Organizational Behavior	Core Course	4	-	4	-	20	80	100	3 Hrs
XXIX	Software Engineering	Ability Enhancement Compulsory	4	-	4	-	20	80	100	3 Hrs
XXX	1.Banking & Insurance OR 2.Retail Management	Discipline Specific Elective [Any One]	4	-	4	-	20	80	100	3 Hrs
	Total		24	-	24	-	120	480	600	--



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B.C.A. Vth Semester Syllabus (CBCS)
Paper No. XXV – Management Accounting

Theory – 80 Marks
Sessional – 20 Marks

	No. of Lectures
Unit I	10
Introduction to Management Accounting: Meaning, Definition, Features, Scope, Importance and Functions of Management Account. Differences between Management Accounting, Financial Accounting and Cost Accounting. Advantages and Limitations of Management Account. (Theory only)	
Unit II	08
Analysis and Interpretation of Financial Statements: Meaning, Definition, Objectives, Scope of Financial Statements. Financial Statement Analysis, Tools of Financial Statements Analysis - Comparative financial statement, Common size financial statement, Trend Analysis. (Theory only)	
Unit III	14
Ratio Analysis: Meaning, Advantages, Limitations, and Classification of ratios. Gross Profit Ratio, Net Profit Ratio, Return on Capital Employed Ratio, Inventory Turnover Ratio, Debtors & Credit Turnover Ratio, Current Ratio, Liquid Ratio, Proprietary Ratio. (Numeric only)	
Unit IV	14
Fund Flow Statement: Meaning, Uses, Limitations, Sources and uses of funds. Funds from operations, Statement showing changes in working capital, Funds Flow Statement (Only in statement form), Preparation of necessary ledger accounts. (Numeric only)	
Unit V	14
Cash Flow Statement Cash Flow Statement as per revised accounting standard -3 in Statement Form (Numeric only)	
Practical: 20 Marks (to be conducted by the department in each college as per convenience) Sessional Work: 20 Marks (Based on Unit II, III and IV) 1. To Collect the Financial Statements of Companies published in News Papers (05 Companies). 2. Calculate Profitability and Financial Ratios (One case). 3. Prepare Statement of Changes in Working Capital and Funds Flow Statement (One Case) i. 10 Marks for above mentioned work. ii. 10 Marks for Group Discussion and Seminar	
Reference Books : 1. Dr. S.N. Maheshwari – Principles of Management Accounting, Sultan Chand & Sons, Delhi 2. Prof. A.P. Rao – Management Accounting – Everest Publishing House, New Delhi 3. Khan M.Y. & Jain P.K. - Management Accounting Tata McGraw-Hill Education 4. Dr. Jitendra Ahirrao - Management Accounting – Kailas Publications Aurangabad. 5. Dr. V.R. Nagori & Dr. Sanjay Agrawal - Management Accounting – Chinmay Publications Aurangabad.	

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B.C.A. Vth Semester Syllabus (CBCS)
Paper No. XXVI – SQL 2017

Total marks – 100

Theory – 80 Marks

Sessional – 20 Marks

		No. of Lectures
Unit I	Introduction To DBMS: Database Management System (DBMS) and Data Models. Introduction to Basic Database, Advantages of DBMS, Exploring Relational DBMS, Understanding Client and Server, Introduction to TSQL (Transact-Structured Query Language), History and Features of TSQL, Types Of TSQL Commands	12
Unit II	Introduction to SQL Server: Advantages and Drawbacks of SQL Server, Comparison between SQL Server and Oracle, Installation steps of Server, Connecting to Server, Server Type, Server Name, Authentication Modes, SQL Server Authentication Mode, Windows Authentication Mode, Login and Password, SQL Server Management Studio and Tools in Management Studio, Object Explorer, Object Explorer Details, Query Editor	12
Unit III	Transaction Management: Transaction Concepts, Begin Transaction, Commit Transaction, Rollback Transaction, Save Transaction, Role of Log File in Transaction Management, Implicit Transaction, Schedules.	12
Unit IV	Concurrency Control : Introduction Concurrency Control, Need for Concurrency, Locking Protocols, Transaction Recovery, Save Points Isolation Levels, SQL Facilities for Concurrency and Recovery.	12
Unit V	File Structure and Indexing : Operations on files, File of Unordered and ordered records, overview of File organizations, Indexing structures for files (Primary Index, Secondary Index, Clustering Index), Multilevel Indexing using B and B+ trees	12
Practical's U/A : 20 Marks		
1. Test/ Tutorial : 10 Marks		
2. Oral / Writing of Algorithms in Journal / File : 10 Marks		
Reference Books :		
1. A Silberschatz, H Korth, S Sudarshan, "Database System and Concepts", fifth Edition McGraw-Hill.		
2. R. Elmasri, S.B. Navathe, Fundamentals of Database Systems 6th Edition, Pearson Education, 2010.		
3. Rob, Coronel, "Database Systems", Seventh Edition, Cengage Learning		
4. C.J.Date, A.Kannan, S.Swamynathan, —An Introduction to Database SystemsI, Eighth Edition, Pearson Education, 2006.		
5. Raghu Ramakrishnan, —Database Management Systems I, Fourth Edition, McGraw-Hill		
6. G.K.Gupta, Database Management SystemsI", Tata McGraw Hill		
7. Database Systems- A practical approach to Design, Implementation and Management by Thomos Connolly, Carolyn Begg, 3rd Edition, Pearson Education.		

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B.C.A. Vth Semester Syllabus (CBCS)
Paper No. XXVII – VB

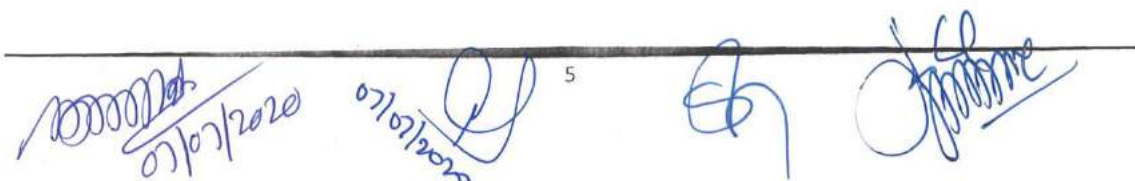
Total - 100 marks

Visual Basic

Theory – 80 Marks
Sessional – 20 Marks

		No. of Lectures
Unit I	Introduction to Visual Basic : Introduction, Integrated Development Environment Overview, Introduction Graphical User Interface (GUI), Programming Language (Procedural, Object Oriented, Event Driven), How to use VB, edition, installation	10
Unit II	Introduction to Visual Basic Programming: Introduction, Visual Programming and Event-Driven Programming, A Simple Program: Printing a Line of Text on the Form, Variables, Variables Public, Private, Static, Constants, Data Types, Naming, rules/conventions, Constants, Named & intrinsic, Declaring variables, Scope variables, Val Function, Arithmetic Operations, Formatting Data. Branching and Looping Statement: If, Select Case, Iterations :While, For, Until	12
Unit III	Arrays and Procedures, Functions : Types of array, control array, Built in and user defined function OOPs in VB : Classes, creating a new Class, Creating a new object using a class, choosing when to create New Objects, The Initialize & Terminate events, Inheritance. Exception handling: Introduction, When Error Handling Should be Used, A Simple Error-Handling Example: Divide by Zero, Nested on Error Statements, Error Object, and Resume Statement. Event handling: Mouse handling	12
Unit IV	Basic Graphical User Interface Concepts: Introduction to forms and Controls: Introduction, Creating , adding, removing Forms in project, Hide, Show Method, Load, Unload Statement, Me Keyword, Referring to Objects on a Different Forms. Adding controls on form Working with Properties and Methods of each Controls (Text Box Control, MaslEdit Control, Combo Box Control, List Box Control, Scrollbars, Slider Control, Menus, Pop-Up Menus, Function MsgBox), Creating an application MENU : Creating a menu system, Creating and accessing pop-up menu, Modifying menus at runtime, adding menu items at run-time, data access methods, creating, reading and writing text files	14
Unit V	Data Control , Connectivity with SQL server , Operations of database through coding , ADO Data Control , Advantages of ADODC over DC , Studying the properties and Methods of ADODC , Connectivity with SQL server ,Report Generation , Developing ADO application through ADODC and coding , Report Generation	12
	Sessional Works : 20 Marks • College can take decision accordingly as per their convenience.	
	Reference Books: 1. Mastering Visual Basic 2. Visual Basic Black Book	

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B.C.A. Vth Semester Syllabus (CBCS)
Paper No. XXVIII – Organizational Behavior

Total - 100 marks

Theory – 80 Marks
Sessional – 20 Marks

		No. of Lectures
Unit I	Evolution of Management thought: Classical School to Contingency School. Contribution of Management thinkers and proponents: Fredrick Taylor, Max Weber, Henri Fayol, Frank and Lillian Gilbreth, Henry Gantt, Elton Mayo and others. OB Studies and Experiments: Classical Conditioning Theory, Hawthorne Studies and others.	12
Unit II	Individual Dynamics – I Personality: Conceptualization, Discussions on Type vs. Trait Theory and Nature vs. Nurture Type Theory: Freud's Theory of Psychosocial Stages, Carl Jung's Theory of Personality , Theory X vs. Theory Y and others. Trait Theory: Myer-Brigg's Trait Indicator, Big-Five Personality Traits and others.	12
Unit III	Individual Dynamics - II Theories of Motivation: Maslow's Hierarchy of Needs Theory, Herzberg's Two-Factor Theory, McClelland Human Motivation Theory, Alderfer's ERG Theory, Vroom's Expectancy Theory, Adam's Equity Theory, Skinner's Reinforcement Theory, Locke's Goal Setting Theory, Deci and Ryan's Cognitive Evaluation Theory	12
Unit IV	Group Dynamics Communication: Concept, Process, Communication channels, Barriers and Implications for Managers, Group Development: Definition, Foundations of Group Behavior, Bruce Tuckman's Stages of Development, Group Properties (roles, norms, status, size and cohesiveness) Decision Making: Group vs. Individual Decision Making, Group decision making techniques, Stages and Process of Decision Making	14
Unit V	Organizational System Organizational Structures: Concept, Design Types, Chain of Command, Span of Control, Centralization vs. Decentralization. Stress Management: Concept of Work Stress, Emotional Intelligence, and Measures for managing stress. Managing Stress related to Business & Employment in Post COVID-19 Era.	10
	Sessional Works : 20 Marks 1. Group Discussion : 10 Marks 2. Test / Tutorial : 10 Marks	
	Reference Books: 1. Robbins, S., Judge, T., & Vohra, N. (2016). Organizational Behavior. (16e, Ed.) Mullins, L. J. (2010). Management and Organizational Behaviour. (9th, Ed.) 2. Bratton, J. (2016). Introduction to Work and Organizational Behaviour. (3rd, Ed.) 3. Butler, M., & Rose, E. (Eds.). (n.d.). Introduction to Organisational Behaviour. 4. Aswathappa, K. (2017). Organisational Behaviour. (12th, Ed.) 5. Rollinson, D. (2008). Organisational Behaviour and Analysis: An Integrated Approach. (4th, Ed.)	

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B.C.A. Vth Semester Syllabus (CBCS)
Paper No. XXIX – Software Engineering

Total - 100 marks
Theory - 80 Marks
Sessional - 20 Marks

		No. of Lectures
Unit I	Overview of systems Analysis and design System concepts : Types of systems: Information System, System Development Life cycle, Role & Skills of system Analyst, Models: 1) Waterfall 2) Prototyping 3) Spiral (including WIN-WIN Spiral) 4) RAD 5) Group Based Approach: JAD 6) Object Oriented methodology	12
Unit II	A) Current trends in Software Engineering : 1 Software Engineering for projects & products. 2 Introduction to Web Engineering and Agile process B) Information requirement Analysis: 1) Decision Analysis Tools: Decision Tree, Decision Table, Structured English 2) Functional Decomposition Diagram 3) Process modeling with physical and logical Data Flow Diagrams 4) Data Dictionary Case Studies on Decision analysis tools , FDDs, DFDs should be covered	14
Unit III	Software Analysis : Requirements Engineering; Feasibility Study : economical, operational, social, technical; Requirements Elicitation; Requirements Analysis; Requirements Validation and Management. Size Estimation; Cost Estimation Models; COCOMO, COCOMO II; Software Risk Management. Activities in Requirements Determination : a) Requirements Anticipation b) Requirements Investigation c) Requirements Specifications	14
Unit IV	Software requirement Specification (SRS) : 1] Structure and contents of the requirements specification analysis modeling, types of requirements - functional and non-functional , Quality criteria, requirements definition ,SRS format, Fundamental problems in defining requirements. 2] Structure and standards followed for SRS. 3] characteristics of good SRS – Unambiguous, complete, verifiable, consistent, modifiable, traceable, usable during maintenance	12
Unit V	Maintenance : Types of Maintenance, Maintenance Cost, Reverse Engineering, Introduction to legacy systems, Documentation : Types, Role of documentation maintenance	10
	SESSIONAL WORK: 20 Marks College can take decision as per their convenience.	
	Reference Books : 1. System Analysis and Design by Jalote 2. Software Engineering by Sommerville 3. Software Engineering - W S Jawadekar 4. System Analysis & Design methods – Whiten, Bentley 5. System Analysis & Design – Elias Awad 6. Object Oriented Modelling& Design – James Rumbaugh 7. Analysis & Design of Information System – James Senn 8. Analysis & Design of Information System – V. Rajaraman 9. Software Engineering Concepts-Richard Fairley	

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B.C.A. Vth Semester Syllabus (CBCS)
Paper No. XXX – Banking & Insurance (Elective)

Total - 100 marks

Theory – 80 Marks

Sessional – 20 Marks

No. of Lectures

Unit I	Banking in India : Meaning and definition of Bank, Banking and Banking Company. Commercial Banks: Introduction, Structure of Commercial Banks in India, functions, credit creation by commercial Banks, Principle of liquidity and profitability. Co-operative Banks: Introduction, Structure, organization and management, progress and problems. Regional Rural Banks: Introduction, objectives, organization and management, progress and problems.	10
Unit II	Reserve Bank of India The Reserve Bank of India: Introduction, organization and management General functions, regulation of money and credit supply, credit control measures	08
Unit III	Banker and Customer The relationship between Banker and Customer, general relationship — special relationship, statutory obligation to honor Cheque - Bankers lien. Duty to maintain secrecy of customers' account, right to claim incidental charges, right to charge compound interest, Banking Ombudsman.	10
Unit IV	Account of Customers: i) General precautions for opening accounts, KYC (Know Your Customer), Types of deposit accounts, fixed deposit receipt, nomination, TDS. . ii) Special types of customers, minor, married women, Lunatic; Partnership, Joint stock companies unincorporated bodies. Executor and Administrators. Trusts Accounts, Joint Accounts. iii) Principles of sound lending, secured and unsecured advances, Forms of advances, iv) Modes of charging security: Lien, Pledge, Mortgage, Assignment, Hypothecation,	10
Unit V	Electronic Banking (E-Banking): Introduction, Traditional banking v/s E-Banking, electronic delivery channels (ATMs, Smart cards, mobile banking, internet banking,) t-banking transaction, Truncated cheques and electronic cheques, MCgh product, Advantages of Banking, constraints in E-Banking, security measures, RTGS & NEFT. E-Banking During & Post COVID-19 Pandemic.	10
Unit VI	Insurance : Concept and importance of Insurance, Principles of Insurance, Growth & Development of Indian Insurance Industry – Regulations of Insurance Business and The Emerging Scenario – Introduction to Life & General Insurance – Life Insurance: Features of Life Insurance – Essentials of Life Insurance Contract – Kinds of Insurance Policies - Premium determination – Life Policy Conditions, Risk and Insurance.	12
Sessional Marks : 20 Marks 1. Test / Tutorial : 10 Marks 2. Preparing Instruments of Bank/ Insurance as per convenience. : 10 Marks		
References Books : 1 Cordon & Natarajan, Banking Law and Practice 2008, Himalaya Publishing Mumbai. 2 Insurance Laws and Practices. Excel Books Private Limited, A-45, New Delhi. 3 KC. Shekher: Banking Theory & practice, Vani Educational Books, Sahibabad (U.P). 4 Read, E.W., Commercial Bank Management, Harper and Row Publisher New York.		

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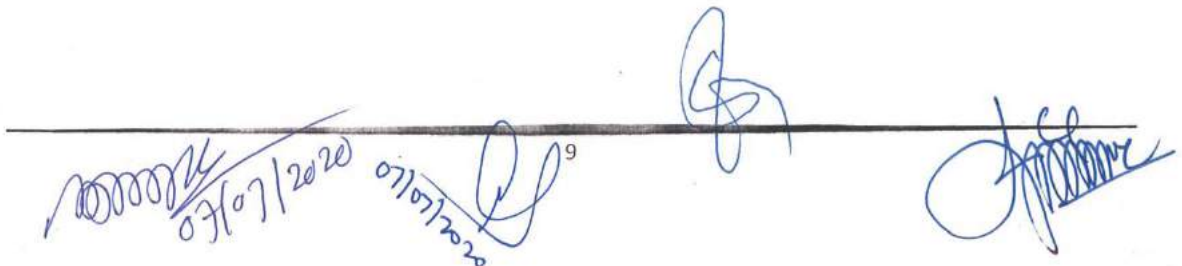
B.C.A. Vth Semester Syllabus (CBCS)
Paper No. XXX – Retail Management (Elective)

Total - 100 marks

Theory – 80 Marks
Sessional – 20 Marks

		No. of Lectures
Unit V	Introduction to Retailing: Meaning, Definition, Scope of Retailing, Role and Functions of retailers, Advantages of Retailing, Organized and Unorganized Retailing, Indian Retail Scenario Vs. Global Retail Scenario, Role of Retail in Nation's Economy	12
Unit V	Theories and Formats of Retailing: 1. Environmental Theory 2. Cyclical Theory 3. Conflictual Theory. Formats of Retailing Store based, Non store and Service retailing	12
Unit V	Retailing Planning and Development: Understanding the Retail Customer Marketing Research for Retailing, Strategic Retail Planning Process, - Retail Strategies: Growth Strategies Positioning a retail outlet; developing a retail brand strategy, expansion strategy, pricing strategy, Retail Location and Site Selection.	12
Unit V	Merchandise Management: Meaning of Merchandising, Factors influencing Merchandising, Basics & Types of Retail Merchandising, Concept & Process of merchandise Planning, Methods of Merchandise Procurement, Retail Pricing and Evaluating.	12
Unit V	Retail HRM & New Trends in Retailing: Identifying Manpower requirements, Recruitment, Selection & Training, Emerging Trends in Retailing in India, Technology in Retailing, Non store retailing (e-retailing) - The Impact of Information Technology in retailing. Legal aspects in retailing, Social issues in retailing, Ethical issues in retailing. Innovative Retail During & Post COVID-19 Pandemic.	12
	Sessional : 20 Marks 1. Test / Tutorial : 10 Marks 2. Preparing Market Research Plan of Product : 10 Marks	
	Reference Books : 1. Retailing Management : Michael Levy and Barton Weitz, TMGH, 5th Edition 2. Retail Management: Swapna Pradhan, TTMGH 3. Retail Management - Chetan Bajaj; Rajnish Tuli; Nidhi Varma - Oxford ks 4. Fundamentals of Retailing: K V S Madaan, McGraw Hill 5. Retail Marketing Management: David Gilbert, Pearson Publication 6. Retail Management : Arif Sheikh, Himalaya Publishing	

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DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY**CIRCULAR NO.SU/ COM.&MGT./C.B.C.& G.S./28/2021**

It is hereby informed to all concerned that, the syllabi of following courses prepared by the Board of Studies & recommended by the Dean, Faculty of Commerce & Management the **Academic Council at its meeting held on 15 February 2021 has decided that to adopt the Choice Based Credit and Grading System from the academic Year 2020-2021 Under the Faculty of Commerce & Management.**

Sr. No.	Name of the Course	Semester
1]	B.Com.	VI
2]	BBA	VI
3]	BCA	VI
4]	B.Com. E-Commerce	IV
5]	MPM	IInd

This is effective from the Academic Year 2020-2021 & onwards as appended herewith.

All concerned are requested to note the contents of this circular and bring the notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.
REF.NO. SU/ COM.MGT/2020-21
29439 - 29789
Date:- 17-03-2021.

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*Deputy Registrar,
Academic Section
Syllabus unit.*

Copy forwarded with compliments to :-

- 1] **The Principals, affiliated concerned Colleges, Dr. Babasaheb Ambedkar Marathwada University.**
- 2] **The Director, University Network & Information Centre, UNIC, with a request to upload this Circular on University Website.**

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- 1] The Director, Board of Examination & Evaluation,
- 2] **The Section Officer, [Commerce Unit] Examination Branch,**
- 3] The Section officer, [Eligibility Unit],
- 4] **The Programmer [Computer Unit-1] Examinations,**
- 5] **The Programmer [Computer Unit-2] Examinations,**
- 6] The In-charge, [E-Suvidha Kendra], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr. Babasaheb Ambekar Marathwada University.
- 7] The Public Relation Officer,
- 8] The Record Keeper.

**DR. BABASAHEB AMBEDKAR
MARATHWADA UNIVERSITY,
AURANGABAD.**



Curriculum of

BACHELOR OF COMPUTER APPLICATION

(BCA)

IIIIRD YEAR

SIX SEMESTER

under Choice Based Credit & Grading System

[Effective from the Academic Year 2020-21 & onwards]

[Signatures]

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD.

FACULTY OF COMMERCE & MANAGEMENT.

Syllabus - Bachelor of Computer Application (BCA)

Choice Based Credit System (CBCS)

Semester & Credits	Core Course [04]	Ability Enhancement Compulsory Courses [AEC] [01]	Discipline Specific Elective [DSE] [01]
VI Credit 24	1. Element of Commercial Portal (HTML 5) 2. Android 9 3. Business Law - III 4. Project	1. Software Testing	Elective Paper [Any One] 1. Services Marketing OR 2. Export Management
Total Credits 24	No. of Credits : 16	No. of Credits : 04	No. of Credits : 04



Structure of B. C. A. Sixth Semester
Choice Based Credit Grading System (CBCS) 2019 - 2020

Paper Number	Subject/ Title of the Paper	Course	Weekly		Credits		IA	UA	Total Marks	Duration of Theory Exam
			Th	Pr	Th	Pr				
XXXI	Elements of Commercial Portals (HTML 5)	Core Course	4	-	4	-	20	80	100	3 Hrs
XXXII	Android 9	Core Course	4	-	4	-	20	80	100	3 Hrs
XXXIII	.Business Law III	Core Course	4	-	4	-	20	80	100	3 Hrs
XXXIV	Project	Core Course	4	-	4	-	20	80	100	3 Hrs
XXXV	Software Testing	Ability Enhancement Compulsory	4	-	4	-	20	80	100	3 Hrs
XXXVI	1.Services Marketing OR 2.Export Management	Discipline Specific Elective [Any One]	4	-	4	-	20	80	100	3 Hrs
	Total		24	-	24	-	120	480	600	--

B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXI – Elements of Commercial Portals (HTML 5)

Theory – 80 Marks
 Sessional – 20 Marks

Objectives:

- Student will be able to know the elements of commercial portals with XML, JQuery and other details.

		No. of Lectures
Unit I	HTML 5 Introduction , form elements – Date, Date Time, Email, Number, Range, Tel, Color, URL, Date Time Local, Month , Week, Time, Placeholder Attribute, Autofocus Attribute, Required Attributes , HTML Audio , Video	10
Unit II	XML 2.1 Concept of XML, features of XML 2.2 Writing XML elements attributes etc. 2.3 XML with CSS, programs on it. 2.4 XML with DSO, programs on it. 2.5 XML Namespace, XML DTD, programs on it. 2.6 XML schemas, writing simple sheet using XSLT 2.7 SAX Parser, DOM Parser 2.8 Introduction to SOAP, Examples of XML	08
Unit III	jQuery - I 3.1 Introduction to jQuery, Syntax Overview 3.2 Anatomy of a jQuery Script, Creating first jQuery script 3.3 Traversing the DOM, Selecting Elements with jQuery, 3.4 Refining & Filtering Selections, Selecting Form Elements 3.5 Working with Selections - Chaining, Getters & Setters 3.6 CSS, Styling, & Dimensions 3.7 Manipulating Elements - Getting and Setting Information about Elements, Moving, Copying, and Removing Elements, Creating New Elements	14
Unit IV	jQuery - II 4.1 Manipulating Attributes, Utility Methods 4.2 Events - Connecting Event to Elements, Namespacing Events, Event handling, Triggering Event handlers, Event Delegation 4.3 JQuery Effects –hide/show, fade, slide, animate, callback, stop 4.4 Interactions – Draggable, Droppable, Resizable, Selectable, Sortable 4.5 Widgets - Accordion, DatePicker, Menu, Tabs 4.6 Plugins – Using readymade plugins, Create a basic plugin, Writing Plugins	14
Unit V	AJAX 5.1 AJAX Overview 5.2 jQuery's AJAX related methods, 5.3 Ajax and Forms 5.4 Ajax Events	14
	Practical: 20 Marks (to be conducted by the department in each college as per convenience) Sessional Work: 20 Marks (Based on Unit II, III and IV e.g. HTML 5 , XML , JQuery and AJAX)	

Text Books :

1. HTML, DHTML, JavaScript, Perl & CGI Ivan Bayross
2. HTML & CSS : The Complete reference, Fifth Edition By Thomas Powell

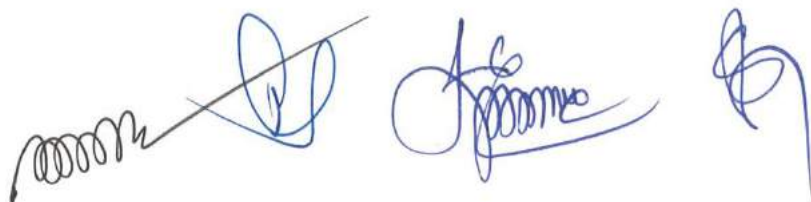
Reference Books :

1. Html, Xhtml, And Css Bible (English) 5th Edition (paperback) by Schafer, Steven
2. HEAD FIRST HTML AND CSS, 2/ED (UPDATED FOR HTML) by ROBSON
3. Beginning HTML and CSS (English) (Paperback) by Rob Larsen
4. Learn to Code HTML and CSS (English) (Paperback) by Howe
5. Head First HTML5 Programming by Elisabeth Freeman and Eric Freeman
6. Introducing HTML5 - Bruce Lawson, Remy Sharp
7. AngularJS - Brad Green, Shyam Seshadri
8. Learning jQuery - Jonathan Chaffer, Karl Swedberg
9. Professional Ajax, 2nd Edition Wrox Press
10. Internet Technology at work Hofstetter fred, TMH.
11. Beginning XML Wrox Press
12. XML how to program Deitel & Deitel, Pearson Pub.
13. Programming the World Wide Web Robert W. Sebesta, Pearson, 4th Ed.

Web references:

1. www.w3school.com
2. www.tutorialpoint.com

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B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXII – Android 9

Theory – 80 Marks
Sessional – 20 Marks

Objectives:

1. To facilitate students to understand Android SDK & Basics of Android Application Development.

2. To impart working knowledge of Android Studio development tool.

		No. of Lectures
Unit	Environment Setup:	12
I	Developing for android installing the android SDK, Installing the updates to the SDK, Android Development Tools (ADT) Plugin, developing with Eclipse. Create Android Application, Create Android Virtual Device, and Architecture: Linux kernel, Libraries, Android Runtime, and Application Framework.	
Unit	Application Components:	12
II	Application Components Activities, Services, Broadcast Receivers, content Providers. Anatomy of Android Application, The Main Activity File, The Manifest File, The Strings File, The R File, The Layout File, Running the Application. Types Of Android Application: Foreground Application, Background Application, Intermittent Application.	
Unit	Resources Organizing & Accessing:	12
III	Alternative Resources, Accessing Resources. The Dalvik Debug Monitor Service, The Android Debug Bridge. UI Layouts: Android Layout Types, Relative Layout Attributes, Grid View Attributes, Sub-Activity, Layout Attributes, View Identification, UI Controls, Android UI Controls, TextView Attributes, AutoComplete Text View Attributes, Button Attributes, ImageButton Attributes, CheckBox Attributes, ToggleButton Attributes, RadioButton Attributes, RadioGroup Attributes	
Unit	Intents and Filters:	12
IV	Intent Objects, Action, Android Intent Standard, Actions, Data, Category, Extras, Flags, Component Name, Types of Intents: Explicit Intents, Implicit Intents. Externalizing Resources, Android Application Life Cycle. Fragments: Creating New Fragments, The Fragment Life-Cycle, Fragment States, Adding Fragments to Activities.	
Unit	Event Handling:	12
V	Event Listeners & Event Handlers, Event Listeners Registration, Styles and Themes, Defining Styles, Using Styles, Style Inheritance, Android Themes, Default Styles & Themes, Custom Components, Creating a Simple Custom Components.	

Practical's U/A : 20 Marks

Sessional Work : 20 Marks
 Test /Practical : 10 Marks
 Tutorial/ Programming File : 10 Marks

Reference Books :

1. Android in Practice - Charlie Collins, Michale Galpin, Matthias Kaeppler – Manning Publications 2012
2. Steele J.: The Android Developer's Cookbook: Building Applications with the Android SDK., Addison-Wesley Professional, 2010
3. Conder S., Darcey L.: Android Wireless Application Development, 3rd edition, Addison-Wesley Professional 2012
4. Professional Andriod 4 Application Development: Retomeier, Wrox Publication.

Web Reference:

Android Tutorial, Simply Easy Learning by tutorialspoint.com.
Link:http://www.tutorialspoint.com/android/android_tutorial.pdf

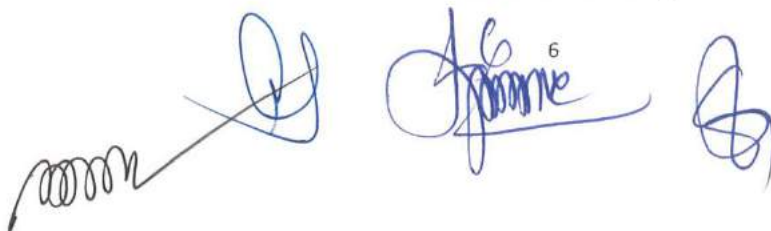
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B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXIII – Business Law III

Theory – 80 Marks
Sessional – 20 Marks

Objectives: To acquaint students about the concept of Laws in India, with latest Amendments.

		No. of Lectures
Unit 1	Information Technology Act 2000 <ul style="list-style-type: none">• Cyber Crime : Meaning and Nature• Terms used in Cybercrime : Hacking, Phishing, Preachers, Cyber Space, IP Spoofing, Leapfrog Attack ; Meaning and its effects on Cyber users• Teenage Web Vandals, Cyber Fraud, Virus on the Internet, Defamation, Harassment and E-mail Abuse, Cyber Pornography, Other IT Act Offences• Monetary Penalties, Adjudication and Appeals under IT Act 2000• Jurisdiction and Criminal Justice in India, Strategies to handle cybercrime and trends	12



Unit II	IT Contracts and Standards	12
	<ul style="list-style-type: none"> Contracts in the InfoTech World, Contract Formation on Internet, Terms and Conditions on Contracts NIST : National Institute of Standards and Technology ; Objectives and working Copyright - Meaning, Ownership and Assignment, License of Copyright, Copyright Protection of Content on the Internet 	
Unit III	Security Tools and Technologies and Services	12
	<ul style="list-style-type: none"> Firewall, Denial of Services (DoS), Digital Signature, Digital Signature Certificate, Packet sniffer, SSL, HTTPS, Pen Register CERT : Computer Emergency Response Team : Introduction and Objectives 	
Unit IV	Cyber Security and Protection to Cyber Users	12
	<ul style="list-style-type: none"> National Cyber Security Policy 2013 – Cyber security : meaning; NCSP 2013 - meaning, Aim and Objectives, Reasons of NCSP 2013, Strategies NCSP 2013 NSA : National Security Agency – case study 	
Unit V	Consumer Protection Act 1986 (with Amendments 2019)	12
	<ul style="list-style-type: none"> Essential terms in Consumer Protection Act, Consumer Complaint, Defects in Goods and Services, Restrictive and Unfair Trade Practices, Instance of Unfair Trade Practices, Reliefs under CPA, Consumer Forum, Jurisdiction and Implications in India. E-Commerce Transactions, E-Filing of Complaints, Product Liability and Penal Consequences, 	
	Sessional Works : 20 Marks	
	Tests : 10 Marks	Tutorials : 10 Marks
Reference Books:		
<ol style="list-style-type: none"> 1. Dr. Avtar Singh : Company Law; Eastern Book Company, 34, Lalbagh, Lucknow. 2. C.R. Datta : Datta on the Company Law; Lexis Nexis, Butterworths Wadhwa, Nagpur 3. A. Ramaiya : Guide to the Companies Act; Lexis Nexis, Butterworths Wadhwa, Nagpur 4. Corporate Law- Bharat Law House Pvt Ltd. New Delhi. 5. Desai. T.R. Indian Contract Act, S.C. Sarkar and sons Pvt.Ltd 		

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**B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXIV – Project**

**Theory – 80 Marks
Project Report – 20 Marks**

Objectives:

- As per the syllabi of BCA, each student has to go for Research Project selecting a topic from his/her specialization area or Area of Interest.

Types Of Project:

(20 Lectures)

The Project may be taken on any one of the following areas:

1. The project should be done in core specialization area of B.B.A course only.
2. Comprehensive case study (covering single organization/multifunctional area problem, formulation analysis and recommendations)
3. Inter-organizational study aimed at inter-organizational comparison/ validation of theory/survey of management services.
4. Evolution of any new conceptual / theoretical framework.
5. Field study (empirical study).

6. The project can be based on primary or secondary data or both as well.

Contents of Project Synopsis:

(20 Lectures)

The synopsis must be submitted containing the following contents:

- i) Title of the project.
- ii) Review of literature and Problem Statement.
- iii) Objectives of the proposed study.
- iv) Research Methodology (Sources of data, Sampling, Tools of analysis etc.)
- v) Scope/Relevance of Proposed Study.
- vi) Proposed Questionnaire (if any).
- vii) References.

Main Project:

(20 Lectures)

Contents of Project Report:

- 1) Introduction and Rationale of the topic chosen
- 2) Objectives of the study
- 3) Literature Review and problem formulation.
- 4) Research Methodology.
- 5) Analysis/discussion and interpretation of Data.
- 6) Conclusions/findings and recommendations/Suggestions.
- 7) References/Bibliography.
- 8) Appendix.
 - a) Questionnaire, if any
 - b) Interview schedule, if any
 - c) List of the companies surveyed.
 - d) Raw data, if the candidate wants to submit
 - e) Graphs/Diagrams etc.
 - f) Any other document relevant to the study

Project Report : Students are expected to prepare model Project Report 20 Marks

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B.C.A. VIth Semester Syllabus (CBCS)

Paper No. XXXV – Software Testing

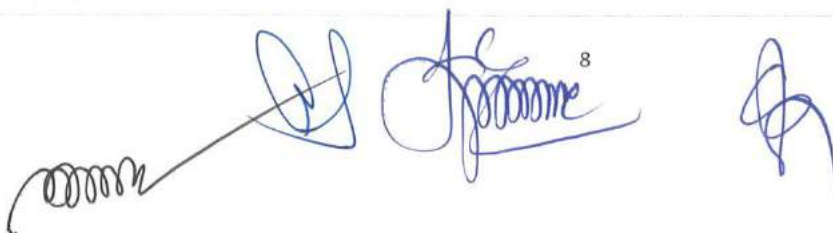
Theory – 80 Marks

Sessional – 20 Marks

Objectives:

- The purpose of this course is to understand the Software Engineering process, DFD, FDD, Software Inspection Process, Maintenance,.

		No. of Lectures
Unit 1	Overview of Systems Analysis and Design System Concepts : 1) Types of systems: Information System 2) System Development Life cycle 3) Role & Skills of system Analyst Models: 1) Waterfall 2) Prototyping 3) Spiral (including WIN-WIN Spiral) 4) RAD	12



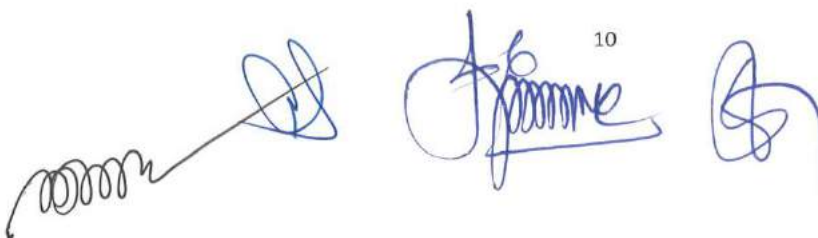
	5) Group Based Approach: JAD 6) Object Oriented Methodology	
Unit II	A) Current Trends in Software Engineering: 1.1 Software Engineering for Projects & Products. 1.2 Introduction to Web Engineering and Agile process B) Information Requirement Analysis: 1) Decision Analysis Tools: Decision Tree, Decision Table, Structured English 2) Functional Decomposition Diagram 3) Process modeling with physical and logical Data Flow Diagrams 4) Data Dictionary Case Studies on Decision analysis tools , FDDs, DFDs should be covered	14
Unit III	Software Analysis : Requirements Engineering; Feasibility Study: economical, operational, social, technical; Requirements Elicitation; Requirements Analysis; Requirements Validation and Management. Size Estimation; Cost Estimation Models; COCOMO, COCOMO II; Software Risk Management. Activities in Requirements Determination a) Requirements Anticipation b) Requirements Investigation c) Requirements Specifications	14
Unit IV	Software Requirement Specification (SRS): 1] Structure and contents of the requirements specification analysis modeling, types of requirements - functional and non-functional , Quality criteria, requirements definition ,SRS format, Fundamental problems in defining requirements 2] Structure and standards followed for SRS 3] characteristics of good SRS – Unambiguous , complete , verifiable , consistent , modifiable , traceable , usable during maintenance	12
Unit V	Maintenance: 5.1 Types of Maintenance 5.2 Maintenance Cost 5.3 Reverse Engineering 5.4 Introduction to legacy systems Documentation: 5.5 Types 5.6 Role of Documentation Maintenance	10
	SESSIONAL WORK: 20 Marks College can take decision as per their convenience.	
Text Books: 1. Software Engineering by Pressman		
Reference Books : 1. System Analysis and Design by Jalote 2. Software Engineering by Sommerville 3. Software Engineering - W S Jawadekar 4. System Analysis & Design methods – Whiten, Bentley 5. System Analysis & Design – Elias Awad 6. Object Oriented Modelling& Design – James Rumbaugh 7. Analysis & Design of Information System – James Senn 8. Analysis & Design of Information System – V. Rajaraman		

B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXVI – Services Marketing (Elective)

Total : 100 Marks
Theory :80 Marks
Sessional : 20 Marks

		No. of Lectures
Unit 1	Introduction : Service Marketing, Concept, Nature of Services, Characteristics of Services, Classification of Services, Need and Importance of Service Marketing, objectives and Problems of Service Marketing, Difference between Goods and Service, Difference between Software Products and Software Services	12
Unit II	Marketing Communication : Meaning, Elements of marketing communication, Process of marketing communication – The Customer, The Business Environment and The Media, Role of Marketing Communication, Approaches in Marketing Communication - Corporate and Marketing oriented, Strategies in Marketing Communication – to match service promises with delivery, Key reasons for GAP4 involving communication	12

10



Unit III	Promotion and Distribution of Services : Promotion – Meaning and Concept, Objectives in Service marketing, Advertisements and Sales Promotion of Services, Distribution : Concept, Channels of Distribution, Obstacles in distribution, Recent Trends in distribution, Significance of Market Segmentation in Service Marketing	12
Unit IV	Service Process and Performance: Service process – Concept, Steps in Service Process, 7 P’s of Service Marketing Mix, Performance in Service Marketing – Concept, Monitoring of Marketing Performance, Triangle Model for Performance, Special Service Marketing Practices	12
Unit V	Techniques in Service Marketing: B2B Strategies, GAP Model, PZB Model	12
Sessional Work : 20 Marks Two Tests : 10 Marks Two Tutorials : 10 Marks		
References Books : 1. Rampal & Gupta, “Service Marketing”, Sultan Chand 2. Bhattacharjee, “Service Marketing”, Excel Publisher 3. Zeithmal, “Service Marketing”, Tata McGraw Hill, Third Edition 4. Govind Apte, “Service Marketing”, Oxford University Press 5. Rama Mohana Raok, “Services Marketing”, Pearson Education 6. Helen Woodruff, “Services Marketing”, 7. Ardien Payne, “Essence of Services Marketing”, 8. M.N. Mishra, “Sales Promotion & Advertising Management”, Himalaya Publication 9. Dr. Niraj Kumar, “ Marketing Communication”, Himalaya Publishing House		

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**B.C.A. VIth Semester Syllabus (CBCS)
Paper No. XXXVI – Export Management (Elective)**

**Theory – 80 Marks
Sessional – 20 Marks**

Objective:

- Students will be able to acquire the knowledge about Import Export Trade and Promotions in India

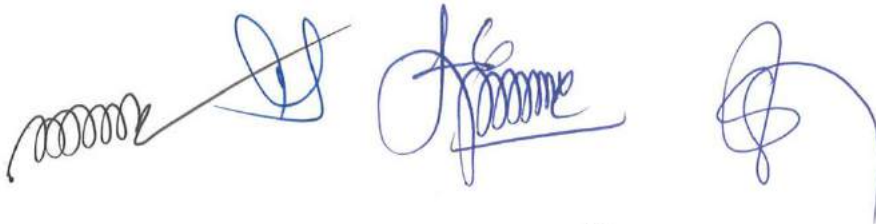
		No. of Lectures
Unit I	India’s Foreign Trade: • India’s Foreign Trade & Development • Trends in India’s foreign Trade • Composition of Exports • Major problems of Export Sector	12
Unit	Export Promotion in India:	12

II	<ul style="list-style-type: none"> • Evolution of Export Promotion Policies in India • Regulatory Mechanism in Export Promotion • Export Promotion Measures in India • Obstacles faced in effective Export Promotion Effort 	
Unit III	Institutional Framework for Export Promotion in India: <ul style="list-style-type: none"> • Govt. policy making & consultations • Export Promotion Councils & Commodity Boards • Technical & Specialised Services Assistances • Govt. participation in foreign trade & organisational setup in the states. • Commercial wing of Indian Embassies Abroad 	12
Unit IV	Export Finance in India: <ul style="list-style-type: none"> • Types of export finance • Features of pre-shipment and post-shipment finance • Methods of payment • Role of commercial banks and EXIM bank in export finance 	12
Unit V	Common Export Documents, EPZ, EOU & SEZ <p>A. Commercial Documents</p> <ul style="list-style-type: none"> – Commercial Invoices – Bill of lading – Airway Bill – Combined Transport Documents – Insurance Certificate <p>B. Statutory Documents</p> <ul style="list-style-type: none"> – Documents for registration of firm – Documents for shipping <p>C. Export Processing Zones & Export Oriented Units</p> <ul style="list-style-type: none"> – Meaning & objectives – Major sectors – Need for special license – Benefits/facilities provided <p>D. Special Economic Zones</p> <ul style="list-style-type: none"> – Meaning & objectives – Criteria for setting up of SEZ – Advantages of SEZ Units in India 	12
Sessional Work : 20 Marks Two Tests : 10 Marks Two Tutorials : 10 Marks		
Reference Books : 1. Export Import Policy, Publisher: Ministry of Commerce, Government of India, New		

Delhi.

2. Export Management – Francis Cheruuilam – Himalaya Publishing House, Mumbai.
3. Export Management – P. K. Khurana – Galgotia Publishing Company, New Delhi.
4. Export Management – D. C. Kapoor – Vikas Publishing House Pvt. Ltd., New Delhi.
5. International Marketing and Export Management – Pearson Publication, New Delhi.

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Three handwritten signatures in blue ink are arranged horizontally. The first signature on the left is highly stylized with a series of loops and a long horizontal tail. The middle signature is more legible, appearing to be 'Francis' with a long horizontal stroke underneath. The signature on the right is a compact, circular scribble with a long horizontal tail.