# ALAGAPPA UNIVERSITY, KARAIKUDI NEW SYLLABUS UNDER CBCS PATTERN (w.e.f. 2017-18)

# **B.Com.** (COMPUTER APPLICATION) – PROGRAMME STRUCTURE

Sem.	Part	Course Code	Title of the Course	Cr.	Hrs./	Max. Marks		
					Week	Int.	Ext.	Total
I	I	7BCC111	Language Course – I - வணிகக்கடிதங்கள்	3	6	25	75	100
	II	712E	English Language Course – I	3	6	25	75	100
	III	7BCC1C1	Core-I – Advanced Accountancy– I	4	6	25	75	100
		7BCC1C2	Core-II – Relational Database Management System (RDBMS)	4	6	25	75	100
			Allied - I	5	5	25	75	100
	IV	7NME1A/ 7NME1B/ 7NME1C	(1) Non-Major Elective – I – (a) தமிழ் மொழியின் அடிப்படைகள்/ (b) இக்கால இலக்கியம் / (c) Communicative English	2	1	25	75	100
			Total	21	30			600
II	I	7BCC211	Language Course – II – அலுவலக மேலாண்மை	3	6	25	75	100
	II	722E	English Language Course – II	3	6	25	75	100
	III	7BCC2C1	Core – III – Advanced Accountancy – II	4	6	25	75	100
		7BCC2C2	<b>Core</b> – <b>IV</b> – Computer Networks	4	5	25	75	100
			Allied – II	5	5	25	75	100
	IV	7BES2	(3) Environmental Studies	2	2	25	75	100
			Total	21	30			600
	III	7BCC3C1	Core – V – Tally	4	6	25	75	100
		7BCC3C2	Core – VI – C Programming	4	6	25	75	100
		7BCC3C3	Core – VII – Business Statistics	4	5	25	75	100
		7BCC3C4	Core – VIII – Advanced Accountancy – III	4	5	25	75	100
			Allied – III	5	5	25	75	100
III	IV	7NME3A/ 7NME3B/ 7NME3C	(1) Non-major Elective – II – (a)இலக்கியமும் மொழிப்பயன்பாடும்/ (b) பழந்தமிழ் இலக்கியங்களும் இலக்கியவரலாறும் / (c) Effective Employability Skills	2	1	25	75	100
		7SBS3A1/ 7SBS3A2/ 7SBS3A3	(2) Skill Based Subjects – I	2	2	25	75	100
	V	7BEA3	Extension activities	1	-	100		100
			Total	26	30			800
IV	III	7BCC4C1	Core – IX–E-commerce and Internet	4	6	25	75	100
		7BCC4C2	Core – X – C++ Programming	4	5	25	75	100
		7BCC4C3	Core-XI-Advanced Accountancy-IV	4	5	25	75	100

		7BCC4C4	Core – XII – Business Mathematics	4	5	25	75	100
			Allied – IV	5	5	25	75	100
		7SBS4B1/						
		7SBS4B2/	(2) Skill Based Subjects – II	2	2	25	75	100
	IV	7SBS4B3	-					
	IV	7BVE4/	(4) Value Education /					
		7BMY4/	Manavalakalai Yoga / Women's	2	2	25	75	100
		7BWS4	Studies					
			Total	25	30		-	700
		7BCC5C1	<b>Core – XIII</b> – Corporate Accounting	4	8	25	75	100
	III	7BCC5C2	<b>Core</b> – <b>XIV</b> – Income Tax-Law and	4	8	25	75	100
			Practice – I					
		7BCCE1A/	Elective – I - A) Operating System	5	5	25	75	100
		7BCCE1B	(or) B) Web Technologies					
V		7BCCE2A/	<b>Elective – II - A)</b> Auditing <b>(or)</b>	5	5	25	75	100
		7BCCE2B	<b>B</b> ) Costing	3		23	73	100
	IV	7SBS5A4/	(2) Skill Based Subjects – I	2	2	25	75	100
		7SBS5A5/						
		7SBS5A6/	(2) Skill Based Subjects – I	2	2	25	75	100
		7SBS5A7						
			Total	22	30			600
		7BCC6C1	Core – XV – Java Programming	4	5	25	75	100
	III	7BCC6C2	Core–XVI–Income Tax – Law and	4	5	25	75	100
			Practice – II					
		7BCC6C3	Core – XVII – Special Accounts	4	6	25	75	100
		7BCC6C4	Core – XVIII – Management	4	5	25	75	100
			Accountancy			23	75	100
VI			Elective – III-					
		7BCCE3A/	<b>A</b> ) Dot net programming ( <b>or</b> )	5	5	25	75	100
	IV	7BCCE3B	B) Industrial Law					
		7SBS6B4/	(2) Skill Based Subjects	2	2	25	75	100
		7SBS6B5/	(2) Skill Based Subjects	_	_			
		7SBS6B6/		2	2	25	75	100
		7SBS6B7		25				
Total Grand Total					30			700
			140	180			4000	

## **B.Com.** (COMPUTER APPLICAION)

# I YEAR – I SEMESTER COURSE CODE: 7BCC1C1

## CORE COURSE - I - ADVANCED ACCOUNTANCY - I

#### Unit - I

Accounting Principles – Conventions and process – Double entry system – Rules – scope – limitations – collection and recording of financial data – journal – ledger – subdivision of journal – Trial balance.

#### Unit - II

Errors – Types – Rectification of errors – suspense Account – Bank Reconciliation Statement.

#### Unit - III

Depreciation accounting – all methods

#### Unit - IV

Final accounts of sole trading concerns – bill of exchange – Trading and accommodation bills– renewals – dishonour due to Insolvency – retiring of bills

## Unit - V

Fire Insurance Claims – Average Clause – Loss of Stock

#### **Text Book:**

Advanced Accountancy – R.L.Gupta and M.Radhasamy

#### **Books for Reference:**

1. Advanced Accounts – M.C.Shukla and T.S.Grewal

2. An introduction to Accountancy – S.N.Maheswari

3. Advanced Accountancy – M.A.Arulanandam and K.S.Raman

4. Advanced Accountancy – S.P.Jain and K.L.Narang.

**Note:** The Question paper must contain 60% problems and 40% Theory.

\*\*\*\*

# CORE COURSE - II – RELATIONAL DATABASE MANAGEMENT SYSTEM (RDBMS)

#### Unit – I

Data base System Applications, data base System VS file System – View of Data – Data Abstraction –Instances and Schemas – data Models – the ER Model – Relational Model – Other Models – Database Languages – DDL – DML – database Access for applications Programs – data base Users and Administrator – Transaction Management – data base System Structure – Storage Manager – the Query Processor. History of Data base Systems - Data base design and ER diagrams

#### Unit - II

Introduction to the Relational Model – Integrity Constraint Over relations – Enforcing Integrity constraints – Querying relational data – Logical data base Design – Introduction to Views – Destroying / altering Tables and Views. Relational Algebra – Selection and projection set operations – renaming – Joins – Division

## **Unit - III**

Form of Basic SQL Query – Examples of Basic SQL Queries – Introduction to Nested Queries – Correlated Nested Queries Set – Comparison Operators – Aggregate Operators – NULL values – Comparison using Null values – Logical connectivity's – AND, OR and NOT – Impact on SQL Constructs – Outer Joins – Disallowing NULL values – Complex Integrity Constraints in SQL Triggers and Active Data bases. Schema refinement – Problems Caused by redundancy – Decompositions – Problem related to decomposition – reasoning about FDS – FIRST, SECOND, THIRD Normal forms – BCNF

#### Unit - IV

Transaction Concept- Transaction State- Implementation of Atomicity and Durability – Serializability- Recoverability – Implementation of Isolation – Testing for serializability-Lock –Based Protocols – Timestamp Based Protocols- Validation- Based Protocols

#### Unit - V

Data on External Storage – File Organization and Indexing – Cluster Indexes, Primary and Secondary Indexes – Index data Structures – Hash Based Indexing – Tree base Indexing – Comparison of File Organizations – Indexes and Performance Tuning- Intuitions for tree Indexes – Indexed Sequential Access Methods (ISAM)

## **Text Books:**

- 1. Raghurama Krishnan, Johannes Gehrke, Data base Management Systems, 3rd Edition, TATA McGrawHill.2003.
- 2. Silberschatz, Korth, Data base System Concepts, 6th Edition, Tata McGraw Hill, 2011.

## **Books for Reference:**

- 1. Sharad Maheshwari Ruchin jain, "Database Management Systems: Complete Practical Approach", Laxmi Publications, 2e, 2016.
- 2. Garcia-molina,"Database Systems The Complete Book",Dorling Kindersley India, 2009.

**소소소소소소소소소** 

#### CORE COURSE - III - ADVANCED ACCOUNTANCY - II

#### Unit - I

Accounts of Non-trading concerns

#### Unit - II

Average due date – calculation of interest – Account current – Red ink interest – forward and backward method – daily balance method.

#### Unit - III

Consignment account – normal loss – abnormal loss – calculation of unsold stock – cost price, invoice price and selling price effects – goods returned – loading factors.

#### **Unit - IV**

Joint venture accounts – methods – individual venture's book – memorandum method separate set of books method.

#### Unit - V

Single entry – methods – net worth method – conversion of single entry into double entry – missing information: debtors, creditors, B/R, B/P, Capital, cash purchase, sales, stock.

## **Books for Study:**

- Advanced Accountancy
  Advanced Accountancy
  Advanced Accountancy
  Advanced Accountancy
  M.C.Shukla & T.S.Grewal
  M.A.Arulanandam & K.S.Raman
- 4. Advanced Accountancy J.R.Batliboi
  5. Advanced Accountancy V.Singharaj
  6. Advanced Accountancy Jain & Narang

**Note:** The question paper must contain 60% problems and 40% Theory.

**소소소소소소소소소** 

#### **CORE COURSE - IV - COMPUTER NETWORKS**

#### Unit - I

Building a Networks - Requirements - Layering and protocols - Internet Architecture-Line configuration - Topology - Transmission Modes - Categories of Network: LAN, MAN, WAN - Layering and protocols- OSI Layer. Physical Layer: Analog and Digital Signals Performance - Transmission Media.

#### Unit – II

Data Link Layer: Internet Architecture – Network software – Performance; Link layer Services - Error Detection and correction – Introduction – Block Coding – Cyclic Redundancy Check – Framing – Flow and error Control – Data link layer protocols: stop - wait protocol and sliding window protocol -. Multiple Access Protocols: ALOHA – CSMA – CSMA/CD

## Unit – III

Network Layer: Circuit switching - packet switching - message switching - Virtual circuit and Datagram subnets - Routing algorithm: Static routing -shortest path routing, Flooding, Flow based routing - Dynamic routing - distance vector routing, link state routing - Hierarchical routing, Broad cast, Multicast routing.

#### Unit – IV

Transport Layer: Process to process delivery – UDP – TCP - Connection oriented Vs connectionless services. Applications and services: Remote Logon – Mail Exchange - File Transfer - Remote Procedure Call - Remote File Access – Traditional applications - Electronic Mail (SMTP, POP3, IMAP, MIME) – HTTP – Web Services – DNS – SNMP

#### Unit - V

Network Security – Cryptography – Encryption model – Transposition and Substitution Ciphers– Symmetric key cryptography: DES – AES – Asymmetric key cryptography: RSA

#### **Text Books:**

- 1. Computer Networks: A Systems Approach, 5th Edition Larry L.Peterson, Bruce S.Davie, Morgan Kaufmann Publishers, 2011.
- 2. Computer Networks, 3rd Edition, Andrew S Tanenbaum, Pearson Education, 2010.
- 3. Data Communications and Networking,4th Edition,Behrouz A.Forouzan, TMH, 2009.

#### **Books for Reference:**

- 1. An Engineering Approach to Computer Networks, 2nd Edition, S.Keshav, Pearson Education, 2008.
- 2. Data&Computer Communications,8th Edition,William Stallings,Prentice Hall,2006.

\*\*\*\*

#### **CORE COURSE - V – TALLY**

## Unit - I

Introduction – Role of computer in Accounting – Extended enterprise features – Accounting and Inventory control features – sales and purchase order processing. To start tally – menus and options – Accounting with Tally – Pre defined groups of accounts – Golden rules of accounts – Double entry systems – ledger creation.

#### Unit - II

Gateway of Tally – Accounts Information – Primary groups of capital nature – revenue nature– To create groups using single mode – multiple mode – Types of Budget – type of vouchers – Restart numbering – Foreign Exchange Transactions – Gate way of Tally – Inventory information – Single stock group creation – multiple stock group creation – create stock category using single mode – multiple mode – configuration settings for inventory – costing method – FIFO – LIFO – create stock items in multiple mode – Trading Business.

#### **Unit - III**

Gateway of Tally – Voucher entry – Type of Voucher – Inventory allocations – Purchase and Sales order vouchers entry – Invoice entry – optional and Regular Vouchers – Gate way of Tally – Balance sheet – Profit and Loss Account.

## **Unit - IV**

Gate way of Tally – Display – Trial Balance – Accounting Books and Statements – Inventory Reports and Statements – Cash Flow / Funds Flow Statement – Gate way of Tally – Multi Accounting Printing – Types of Printing Configuration Options.

#### Unit - V

Reconciliation of Bank Accounts and other Miscellaneous option – Stock Summary Ratio Analysis – Import and Export of Data – Backup and Restore of data – loading a company – creating a group company – Reconciliation of Bank accounts – Security control – uses and passwords – Types of Security – Case study for Manufacturing Accounts (minimum three problems) – case study of Trading Business (minimum three problems) – Online help – Tally ODBC – Connectively – E-mail – ASCII – HTML – XML – Internet Publishing – upload – FTP – Webpage – URL – Exchange and Merge date.

## **Text Book:**

Tally software Package – Manual.

\*\*\*\*

#### CORE COURSE - VI - C PROGRAMMING

#### Unit - I

Introduction: Special features of C – Characteristics of C – Structure of C – Program – Data Types – Integer Date type – Integer Variable – Rules for naming a variable – Data declaration and expressions – Arithmetic operators – Declaration and Initialization – combined – Integer division – priority of arithmetic operators – The parentheses – The modules operator – The unary operator – other data types: floating point numbers – type "double" – types char-key words in C.

#### Unit - II

Control statements: The Scan function – decision making – The if, if else statements and Nesting of if statements – updating assignment operator – Increment – decrement operator –while loop – do while loop – and for loop – Boolean values.

#### Unit - III

Arrays: Introduction to arrays – Declaring an array – Initializing on array – break and continue – strings and character arrays – The conditional arrays – Functions: Introduction to functions – Printf, scanf functions – user defined functions – local and global variable – parameter for argument – functions with multiple parameter built in C library functions.

# Unit - IV

Pointers: Introduction to pointers and indirection – concept of pointer – strings static and auto classes – sprint f, streat, strlen, scan f, stremp functions – size of operator – labels and go–structures–Introduction–period operator–initializing–passing a structure by reference.

#### Unit - V

Standard input and output – putchar, getchar – getc, putc, file input and output – C processor– define un def, include, if def, if def else – miscellaneous features – type def – register and external variables.

#### **Text Book:**

1. Programming in ANSI C, by E. Balagurusamy, Tata McGraw Hill, 4 th Edition.

#### **Books for Reference:**

- 1. Theory and Problems of Programming with C, by Byron S.Gottfried, TATA McGRAW HILL
- 2. Programming in ANSI C, by D. Ravichandran, New Age International (P) Ltd.

## **Exercise:**

- 1. Create a C program to add, subtract, Multiple the Numbers.
- 2. Create a C program to display the Multiplication table.
- 3. Write a program to find the given numbers is Armstrong or not.
- 4. Develop a program to reverse the digit.
- 5. Write a program to display the student grade using structure.
- 6. Develop a program to do EB bill calculation using structure.
- 7. Develop a program to find length of the string and concatenate two strings.
- 8. Write a program to find the given string is palindrome (or) not.
- 9. Write a program to find factorial of given value.

**소소소소소소소소소소** 

#### **CORE COURSE - VII - BUSINESS STATISTICS**

#### Unit - I

Definition – Importance – Application Limitations and Distrust statistical Survey – Planning and design of survey – Collection of data – Primary and Secondary Data – Questionnaire and Schedules – Sampling design – Types of samples – Statistical Errors – Classification of data – Tabulation – Presentation of Data – Diagrams.

#### Unit - II

Measures of Central tendency – Mean – Median – Mode – Geometric Mean – Harmonic Mean – Measures of dispersion – Range – Quartile Deviation – Mean Deviation – Standard Deviation.

#### Unit - III

Correlation – meaning – types – Scatter diagram – Karl Pearson's co-efficient of correlation –Rank correlation – concurrent deviation method – Bi-variate frequency distribution. Regression analysis – uses – methods of studying regression – regression lines.

## **Unit - IV**

Index numbers – meaning – construction of index numbers – its problems – methods of construction – test of consistency – fixed base – chain base conversion and shifting – consumer price index – formula.

## Unit - V

Time series – components – moving average – methods of least squares – measurement of seasonal variations – simple average, ratio-to-trend method, ratio-to-moving average method– link relative method.

#### **Text Book:**

Statistical methods : Dr.S.P.GuptaSultan chand & sons, New Delhi.

## **Books for Reference:**

1. Statistics, Theory & Practice: R.S.N. Pillai & Baghavathy – S.Chand &

Company Ltd. New Delhi.

2. Business Statistics : G.C.Beri Tata Megraw-Hill Edition.

3. Statistical Methods : Sanchetti Kapoor

4. Business Statistics : M.Wilson, Himalaya Publishing House, Mumbai.

\*\*\*\*

#### CORE COURSE - VIII - ADVANCED ACCOUNTANCY - III

#### Unit - I

Partnership Accounts – General, profit and loss appropriation – fixed and fluctuating capital –past adjustment and guarantees.

#### Unit - II

Admission of a partner – Goodwill Treatment – Revaluation of assets and liabilities – accumulated profits, losses and reserves.

#### Unit - III

Retirement of a partner – Retirement and admission – Death of a partner – settlement of amount due to legal representative – life insurance policy amalgamation of firm.

#### **Unit - IV**

Dissolution – accounting treatment for un-recorded asset and liability – continuance of firm by partners after dissolution – insolvency of partners – Garner Vs Murray case – Insolvency of all partners

## Unit - V

Piece meal distribution – proportionate capital method – maximum loss method – sale to a company.

## **Books Recommended:**

- Advanced Accountancy R.L.Gupta & M.Radhasamy
  Advanced Accountancy M.C.Shukla & T.S.Grewal
- 3. Advanced Accountancy M.A.Arulanandam & K.S.Raman
- Advanced Accountancy J.R.Batliboi
  Advanced Accountancy V.Singharaj
  Advanced Accountancy Jain & Narang

**Note:** The question paper must contain 60% problems and 40% Theory.

#### CORE COURSE - IX - E-COMMERCE AND INTERNET

#### Unit - I

Introduction to E-Commerce – Application of E-Commerce – E-Commerce and Media convergence – Market forces influencing I-way – components of I-way – network Access Equipment – Global Information Distribution Networks.

#### Unit – II

Architectural Framework of Electronic Commerce – World Wide Web (WWW) as the Architecture – Web Background – Hypertext Publishing – Technology behind the Web – security and the web type of Electronic payment system (EPS) – Digital token Based EPS – Smart cards and EPS credit card Based EPS – Risk and EPS – Designing EPS.

#### Unit – III

Electronic data interchange – EDI applications in Business – EDI legal, security and privacy issues – EDI and E-commerce– Internal Information systems – macro – forces and Internal commerce – supply chain Management (SCM) – Dimension of internal electronic commerce systems – making a business case for a document Library – Types of Digital documents – corporate data warehouses.

## Unit – IV

Introduction to Internet – History and resources of Internet – Hardware and software requirement of Internet –Internet Architecture – Internetworking Protocol - Internet service providers (ISP)– Connecting to Internet - Internet connection Dial-up access, leased line, ISDN, DSL, cable modem – Internet Addressing.

#### Unit $-\mathbf{V}$

Internet Services: E-Mail – WWW – FTP – Telnet – News – Internet Relay Chat - Introduction to web – URLs schemes, host names and port numbers – Web browser – Search Engines - Web pages protocol – Adding website to favorites – Customizing options.

## **Text Books:**

- 1. Frontiers of Electronic Commerce By Kalkjala
- 2. The complete internet Markerat Lenine Young Millennium

#### **Books for Reference:**

- 1. Frontiers of Electronic Commerce Ravi Kalakota, Andrew Winston
- 2. E-Commerce- A Managerial perspective P.T.Joseph
- 3. Designing Systems for Internet Commerce- G. Winfield Treese & Lawrence C. Stewart
- 4. Computer Fundamentals Anita Goel, Pearson Education India, 2010.

\*\*\*\*\*

#### CORE COURSE - X - C++ PROGRAMMING

## Unit - I

Basic concepts of Ooops – benefits of Ooop – applications – What is c++. Introduction – tokens – key Identifiers and constants – basic data types – user defined data types – derived data types – operators in C++ resolution operator – manipulators. Functions in C++: Introduction – main function – prototyping call by, return by reference, inline function – overloading– friend and virtual functions.

#### Unit - II

Classes and Objects – defining member functions – arrays with in a class – static members –static member full – arrays of objects – friend functions – returning objects.

#### **Unit - III**

Constructor and Destructor: Constructors – parameterized constructors – multiple constructors – multiple constructors in a class – default arguments – dynamic – copy constructor – destructor.

#### Unit - IV

Operators overloading and type conversion: definition – unary, binary operators using friend's manipulation string rules for overloading. Inheritance: types of inheritance – derived class – virtual base class – abstract class.

## Unit - V

Pointers, Virtual functions and polymorphism: pointers to objects – this pointer – virtual functions – cons-operations – C++ stream classes – unformatted I/O operation – output with manipulations I/O.

#### **Text Book:**

1. E.Balagurusamy, "Object – Oriented programming with C++" Second edition, Tata Megraw hill publishing

## **Books for Reference:**

1. Programming in C++ by John Hubbard, Schaum's Outlines Series.

#### Exercise

- 1. Sum of Series
- 2. Sum of Digit
- 3. The value of NCR & PCR
- 4. Whether a given number is prime or not
- 5. Write a program to given number is palindrome or not
- 6. Write a program in addition matrix using array,
- 7. Write a program using inheritance types
- 8. Classes and objects
- 9. Functions
- 10. Write a program using operator overloading
- 11. Write a program using the constructor and destructor

\*\*\*\*

#### CORE COURSE - XI - ADVANCED ACCOUNTANCY - IV

## Unit - I

Contract account – Balance sheet preparation.

## **Unit - II**

Royalties – accounting treatment in Lessor and Lessee books – sub-lease.

## Unit - III

Hire purchase accounting – recognizing legal title and capitalising only proportion of cash price paid – ignoring legal title and capitalizing the full cash price default and repossession – partial re-possession – Hire purchase trading account installment system.

## **Unit - IV**

Insolvency accounts – individual and firm – statement of affairs – deficiency account.

#### Unit - V

Departmental accounting – Allocation of expense – inter departmental transfers – Branch account – types – dependent branches and independent branches – inter-branch transactions incorporation entries etc.

#### **Books Recommended:**

- 1. Advanced Accountancy R.L.Gupta & M.Radhasamy
- 2. Advanced Accountancy M.C.Shukla & T.S.Grewal
- 3. Advanced Accountancy M.A.Arulanandam & K.S.Raman
- 4. Advanced Accountancy J.R.Batliboi
- 5. Advanced Accountancy V.Singharaj
- 6. Advanced Accountancy Jain & Narang

**Note:** The question paper must contain 60% problems and 40% Theory

\*\*\*\*

#### **CORE COURSE - XII – BUSINESS MATHEMATICS**

#### Unit - I

Common Arthimetic: Interest Simple, Compound Normal Rate – effective – Depreciation, Growth and fall of population – present value – Discounting of bills – Face value of bills discount – Banker's gain, Nominal due date – Legal due date – Calculation of period for banker's discount and true discount – Annuities – Types of Annuities – present value of annuity – sinking fund – Acceptability of projects percentage, profit and loss.

#### Unit - II

Logarithms: Definition – Exponential forms – Laws of Logarithms – Change of base formula– common Logarithms and Natural Logarithms – Montissa of the Logarithm – Anti – Logarithm – Application of common Logarithms.

#### **Unit - III**

Elements of set Theory: Definitions – symbols – Roster method and rule method types of sets– union – intersection – subsets compliments – Difference of two sets – Family of sets – Venn diagrams – Demorgan's law.

#### **Unit - IV**

Theory of probability – various schools of thoughts – Theorems – conditions of probability – Baye's Theorem – mathematical expectations – Theoretical distribution – Binomial, poisson and normal distributions.

#### Unit - V

Binomial Theorem – Binomial expansion – Binomial theorem for positive integral index.

#### **Text Book:**

Business Mathematics – M.Manoharan and C.Elango

#### **Books for Reference:**

1. Business Mathematics – D.C.Sanchettiand V.K.Kapoor

Business Mathematics – Stafford
 Mathematics of Students of Commerce – Prem Narian

4. Business Mathematics – D.C.Sanchetty and B.M.Agarwal

5. Business Mathematics – P.R.Vittal.

**\*\*\*\*\*\*\*** 

#### CORE COURSE -XIII - CORPORATE ACCOUNTING

## Unit - I

Issue of shares – Issue of debentures – Underwriting of shares and debentures – Redemption of debentures – Redemption of preference shares

#### Unit - II

Acquisition of business – Profit prior to incorporation

#### Unit - III

Final accounts of companies

#### **Unit - IV**

Amalgmation, Absorption and Reconstruction (External) of Companies – Internal Reconstruction and capital reduction.

#### Unit - V

Company account – liquidation – statement of affairs and efficiency – surplus account – Liquidators final statement of account.

## **Text Book:**

Advanced Accountancy – R.L.Gupta and M.Radhasamy

#### **Books for Reference:**

1. Advanced Accountancy – M.C.Shukla & T.S.Grewal

2. Advanced Accountancy – M.A.Arulanandam & K.S.Raman

Advanced Accountancy – Jain and Narang
 An introduction to Accountancy – S.N.Maheswari.

#### CORE COURSE - XIV - INCOME TAX - LAW AND PRACTICE - I

## Unit - I

Historical background of Indian Income Tax – Income Tax Act.1961

## **Unit - II**

Definitions: Agricultural income – Previous year – Assessee – Assessment year – person – principal officer – Residential status – Deemed income – Capital and Revenue – Tax liability.

#### **Unit - III**

Income exempt from tax – Depreciation

## **Unit - IV**

Salary – Income from house property

#### Unit - V

Profits and Gains from Business or profession – Capital gains – Income from other sources

## **Text Book:**

Income Tax Law and Accounts : Mehrotra and Goyal, Sahitya Bhawan

publication

#### **Books for Reference:**

1. Income Tax : Vinod K.Sighania Taxman

2. Income Tax : Bhagwati Prasad and Vishnu prakashan

3. Income Tax : B.B.Lal

4. Income Tax : Girish and Ravi Gupta

## **ELECTIVE COURSE - I (A) – OPERATING SYSTEM**

#### Unit - I

Definition – Early system – batch processing – multi programming – Multi processor – time sharing – personal computer system – distributed system – parallel systems – evolution of OS– OS as resource manager.

#### Unit - II

Process management – Inter process communication – scheduling – types of scheduling – deadlock – deadlock prevention avoidance, detection and recovery starvation – semaphores – implementation of semaphores.

#### **Unit - III**

Memory Management Levels of management – Dynamic memory allocation – Logical and physical memory – static memory management – memory protection – Allocation to processors – virtual memory – Fragmentation and compaction – Dealing with Fragmentation – Swapping – overlays implementing virtual memory – Virtual memory management – Page replacement – segmentations.

## **Unit - IV**

File management: File abstraction – file naming – file system objects and operations – file system implementation – file blocks on disk – file storage methods – file system reliability – file security and protection.

## Unit - V

I/O and resource management: I/O system software – Disc device driver access strategies – Modeling of discs – Disc scheduling – Resources in OS protection of resources – Authentication – worms and virus – Mechanisms of Protecting software and hardware resources – External security.

#### **Text Book:**

1. Operating system concepts – Abraham Silberschatz, Peter. B. Galvin, Greg Gagne, 9<sup>th</sup> Edition, 2012.

\*\*\*\*\*

## **ELECTIVE COURSE - I (B) – WEB TECHNOLOGIES**

#### Unit - I

WWW Fundamental: Getting connected – who is on the web – History of the web – Understanding URL's – History of the internet – Services available on the internet – Accessing the internet – what is multimedia – Hypertext – CDROMS and WWW – on line communications and the web.

#### Unit - II

Getting connected to the web: Web access – Internet service Providers – RCO/IP and windows learning about SLIP and PPP – Bandwidth – Dedicated connection Modems and the web – About the Web Browsers – Netscape Navigator.

#### Unit - III

Working the e-mail: Accessing Internet Mail – Electronic Main and on – line services – Fining funds in Cyberspace – using mailing list – accessing other parts of the Internet.

#### **Unit - IV**

Web Server Hardware and Software: About setting up a web server – Hardware requirements– Dedicated Phone lines – Web Server Software – Working with windows – HTTPD – Getting up and running with HTTPD – Managing.

#### Unit - V

Learning HTML: About Home Pages – About Hypertext Markup Language – Using HTML – Structural formatting – Paragraph formatting – List – Specification formatting – Formatting hyperlinks – HTML and Multimedia.

#### **Text Books:**

- 1. Paul.J.Perry, "World Wide Web Secrets, Comdex computer Publishing 1996.
- 2. Rajkamal "Internet and WEB Technologies" Tata McGraw Hill Publishing Company Ltd., New Delhi, 2002.

#### **Books for Reference:**

- 1. Douglas E.Corner, the Internet, III Edition, Pearson Education Asia, 2001.
- 2. Daniel Minoili, Emma Minoli, "Web commerce technology Handbook" Tat McGraw Hill publishing Co., Ltd.,
- 3. Daniel Minoili "Internet & Internet Engineering Technologies, Protocols and application" Tate McGraw Hill Publishing Co. Ltd., 1999.

#### **Exercise:**

- 1. Using Internet utilities, TELNET, FTP, E-MAIL
- 2. HTML Programs using tags
  - a. Simple web page
  - b. Hyper linked web page <A> </A>
  - c. Web page with image <IMG SRC="">
  - d. Web page with applet <APPLET>
  - e. Web page with table<TB>
- 3. Java Program
  - a. Program to created a simple applet and applications
  - b. Using Java classes and objects
  - c. Using inheritance and interface
  - d. Using arrays in Java
  - e. Using exceptions
  - f. Using threads (Synchronization, communication, critical section)
  - g. Program using AWT package: Windows, controls and message layout managers
  - h. Using package.net
  - i. Using I/O package.IO (files and streams)



## ELECTIVE COURSE - II (A) - AUDITING

#### Unit - I

Audit – Basic principles – Definitions – Objects – difference between Auditing and Investigation – Advantage of Audit – Qualities of an Auditor – Implications regarding detection of errors and frauds – various types of audit – Audit under Statute – Audit of Accounts of Sole trader, Wholesalers, Partnership firms, Joint Stock Companies, Cooperative Societies, Colleges and Universities and Trust Accounts.

#### Unit - II

Preparation before Audit – Audit Programme – Audit filer – working papers – procedure for Audit – Internal Control – Meaning and definition of Internal Check – Objects of Internal check – Auditors duty as regards Internal check on different items.

#### **Unit - III**

Vouching – Meaning – Definitions – Importance – Duties of an Auditor – Vouching of cash transaction – Vouching of trading transactions.

#### Unit - IV

Verifications and Valuation of assets and liabilities – General Principles – Fixed assets – Investments – Inventories – Freehold and Leasehold properties – Loans – Bills Receivable – Sundry Debtors – Plant and Machinery – Patents – Verification and Valuation of Liabilities –Duties of an Auditor – Audit Report.

#### Unit - V

Liabilities of an Auditor – Liabilities for negligence – Liabilities for misfeasance – Criminal Liability – Liability to third party – legal position

#### **Text Book:**

Practical auditing : B.N.Tandon

## **Books for Reference:**

1. Practical Auditing : S.C.Ghatalia (Spicer & Pegler)

Auditing
 Rum Ram Gupta
 Principles of Auditing (Theory and Practice):
 R.C.Saxena.

\*\*\*\*\*

## **ELECTIVE COURSE - II (B) – COSTING**

#### Unit I

Definition of Costing – Importance – Uses of costing – Objectives - advantages – Differences between Cost and Financial accounts – Installation of costing system – Analysis and classification of costs – Preparation of cost sheet.

#### Unit II

Materials: Purchase procedures – Requisition for materials – Issue of materials: First In First Out, Last In First Out – Simple Average – Weighted Average – Recording and controlling of materials – Maintenance of stores: minimum level, maximum level, reorder level, Economic Ordering quantity – Perpetual inventory – Control over wastage, scrap and spoilage.

#### **Unit III**

Methods of remunerating labour: Incentive schemes – Idle time – Control over idle time – Job evaluation – Merit rating – Time study – Labour turnover – Meaning and measurement.

#### **Unit IV**

Accounting overheads – Fixed and variable overheads – Basis of charging overheads – Allocation – Apportionment and Absorption – Distinction between works overhead, administration overhead, selling overhead and distribution overhead – Distribution of service overheads

#### Unit V

Job costing – Process costing – Normal loss, abnormal loss and abnormal gains – Effectiveness – Equivalent – Production (excluding By – products and joint products).

## **Books for Reference:**

1.Cost accounting : SP.Jain and KL. Narang, Kalyani Publishers.

2.Cost accounting : Das Gupta, Sultan Chand &Sons

3.Cost accounting : R.S.N.Pillai and Bhagvathi, S.Chand &Co.,

4.Cost accounting
 5.Cost accounting
 6.Cost accounting
 V.S.P.Rao, Vrinda Publications

7.A Text Book of cost and Management Accounts : M.N.Arora, Vikas Publications.

**Note:** The question paper shall contain 60% problems and 40% theory

**ቊቊቊቊቊቊቊቊቊ** 

#### CORE COURSE - XV – JAVA PROGRAMMING

#### Unit – I

Java – Introduction – Fundamentals of OOP – Java evolution – Features, comparison between C, C++ and Java – Internet – World wide web – Web browsers – H/W and S/W requirements– supports systems – Java environment – JDK – JVM – APJ – IDE.

#### Unit – II

Start up Java: Java basics – Data types – Variables – Arrays – Simple Programs – Operators – Expressions – precedence of Arithmetic operators – Type conversion – statement – control statements – conditional statements – Looping statements.

#### Unit – III

Classes and objects – Methods – Defining a class – Adding Methods, Variables – Creating Objects – Assessing members – Constructors, Methods overloading – static Members – Nesting of methods – Inheritance – Multiple inheritance – overriding methods – final variables and methods – Final classes – Abstract Variables and classes.

## Unit – IV

Packages: System packages – definition – using system packages – naming conventions – creating packages – accessing package – using a package – adding a class to a package – binding – classes – Multi thread programming: Thread definition – creating threads – extending thread class – stopping and blocking a thread – life cycle of a thread – using thread methods – thread exception – thread priority – synchronization – implementing the runnable interface – Types of Errors – Exceptions, Syntax – Catch statements – Throwing our own exceptions.

## Unit - V

Preparing and building Applet code – Applet life cycle – creating, Designing a web page –Applet Tag – Adding Applet to HTML file – Running the Applet – Passing parameters to Applet – Aligning the display – more about HTML tags – Displaying Numerical values – Getting input from the user – Graphics class – Lines and rectangles, Circles and ellipse – Drawings arcs and polygons – Line graphs.

#### **Text Book:**

1. Programming with JAVA: A Primer (4th Edition), E Balagurusamy, 2010, TATA McGraw-Hill Publishing Company Limited, New Delhi

#### **Books for Reference:**

- 1. The java programming Language: Ken Amold and James Gosling, Addison Wesley.
- 2. Software engineering with JAVA: Stephen R.Segacy Tata McGraw Hill.

#### **Exercise:**

- 1. Array and Flow control statements.
- 2. Runtime exception and I/O exception.
- 3. Multi threading.
- 4. Layout Management.
- 5. GUI components (Label, Check box, Menus, Text etc)
- 6. Event handling(Four events,Key events,Task events,Mouse events,Window events etc)
- 7. Java streams
- 8. Java file management methods
- 9. Java Applets.

**소소소소소소소소소소** 

#### CORE COURSE -XVI - INCOME TAX LAW & PRACTICE - II

#### Unit - I

Assessment of Individual, Hindu Undivided Family, Joint Stock Companies, Partnership firms

#### Unit - II

Income Tax Administration – Machinery of Taxation – Central Board of Direct Taxes – Directorate of Inspection – Commissioner of Income Tax – The Appellate Tribunal

#### Unit - III

Total Income – Deductions in the computation of total income – Set off and Carry Forward of losses

#### **Unit - IV**

Procedure for Assessment – Self Assessment – Provisional Assessment – Regular Assessment – Re Assessment – Best Judgement Assessment – Ex-parte Assessment – Rectification of Mistakes – summary Assessment.

## Unit - V

 $\label{eq:continuous} Collection \ and \ Recovery-Refund \ of \ Tax-Deduction \ of \ Tax \ at \ Source-Advance, \\ Payment \ of \ Tax-Tax \ Credit \ Certificate.$ 

#### **Books for Reference:**

1. Income Tax Law and Practice – Bhagavathi Prasad

Indian Tax Laws
 Income Tax and Practice
 A.N.Nair
 B.B.Lal

4. Income Tax and Practice – Girish and Ravi Gupta

**Note:** The question paper must contain 60% problems and 40% Theory.

**소**소소소소소소소

#### CORE COURSE - XVII - SPECIAL ACCOUNTS

## Unit - I

Bank Accounts – preparation of profit and loss accounts – balance sheet (new forms)

## **Unit - II**

Insurance accounts – life insurance – General insurance – revenue account, profit and loss account and balance sheet.

#### Unit - III

Double accounts – nature – features – receipt and expenditure on capital accounts – general balance sheet – revenue account – net revenue account Difference between single account system and double account system – replacement of an asset – account of electricity companies.

#### Unit - IV

Holding companies – preparation of consolidated balance sheet – minority interest – pre- acquisition proof – its cost of control – inter company balances – unrealized inter company profits revaluation of assets and liabilities Bonus – treatment of dividend.

## Unit - V

Valuation of good will and shares of companies, miscellaneous accounts – voyage – farm accounts – investment accounts.

#### **Books for Reference:**

Advanced Accountancy : R.L.Gupta and M.Radhasamy
 Advanced Accountancy : M.C.Shukla and T.S.Grewal

3. Advanced Accountancy : M.A.Arulanandam and K.S.Raman

4. Advanced Accountancy : J.R.Batliboi5. Advanced Accountancy : V.Singharaj

6. Advanced Accountancy : S.P.Jain and K.L.Narang.

**Note:** The question paper must contain 60% problems and 40% Theory.

**소**ጵጵጵጵጵጵ

#### CORE COURSE - XVIII - MANAGEMENT ACCOUNTANCY

#### Unit - I

Management Accountancy: Meaning – Definition – Objectives – Relationship between Cost, Financial and Management Accounting.

#### Unit - II

Financial statements analysis and interpretation: Accounting ratio, their significance; utility and limitations, Analysis for Liquidity, profitability and Solvency.

#### **Unit - III**

Fund flow and Cash flow analysis – Forecasting of funds requirements

#### **Unit - IV**

Budget and Budgetary Control: Objectives and advantages, Limitations – Master Budget and Financial Budget – Flexible budget and cash budget – preparation of types of budget.

## Unit - V

Standard Costing and Variance Analysis (Simple Problem only) Marginal Costing: Meaning, Object and Advantages and Limitation – Break-Even point (simple problems only)

## **Text Book:**

Principles of Management Accountancy : S.N.Maheswari

## **Books for Reference:**

1. Principles of Management Accounting : Prof. Saravanavel

2. Financial Statement Analysis : R.K.Gupta

\*\*\*\*

#### ELECTIVE COURSE - III (A) - DOT NET PROGRAMMING

#### Unit - I

The .Net Frame work - CLR - Namespace - Assemblies - Class Library - Basic Terminology - .Net Component - .Net garbage collection.

#### Unit - II

Visusalbasic.Net – Datatypes – Operators – Arrays – dynamic arrays – String Handling –Conditional and Looping Statement – Subprocedures and functions – Scope – Structures –Modules – Exception Handling – windows Forms – MDI Forms – events – Msgbox – InputBox – working with Multiple forms – Dialogboxes – Passing forms – Anchoring and Docking Controls – event Handling.

#### Unit – III

**Windows Controls:** Text boxes – RichText Boxes – Labels – Link Labels – Buttons – Checkboxes – Radio Buttons – panels – Listboxs – Combo Boxes – Scroll Bars – Splitters – Track Bars – Pickers – Notify Icons – Timers – Menus – Built in Dialog Boxes — Toolbars – Status Bars – Progress Bars – Tab Controls.

## Unit - IV

ASP.Net – File Types – Importing Namespaces – usage of Global.asax file – The Page class – HttpRequest – HttpResponse – Server Utility – Basic Web Controls – List controls –Validation and Rich Controls – Data Controls – HTML Server controls – Custom Controls –State Management – Tracing – Logging and Error Handling – Overview of AJAX Controls. Implementing Security – Security model – Forms Authentication – Windows Authentication.

#### Unit V

**ADO.Net:** Overview of ADO.Net – Database Access in the Internet world – Characteristics of ADO.Net – Data Objects – Data Namespace – SQL Basics – Data Binding Controls – DataSet – Data Table – Data row – Data column – Data List – Data Grid – Repeater.

#### **Text Books:**

- 1. Visual Basic Net Programming Steven Holzner Black Book Dreamtech Press, 2005.
- 2. The Complete Reference for ASP.Net Matthew MacDonald Tata McGraw-Hill, 2002.

\*\*\*\*

## ELECTIVE COURSE - III (B) – INDUSTRIAL LAW

# Unit – I THE FACTORIES ACT, 1948 (SEC.16 TO 84)

Preliminary – inspecting staff – health, safety and welfare of workers – working hours of adults – employment of young person – leave with wages.

## **Unit – II TRADE UNIONS ACT, 1926**

Definition – registration of trade unions – rights and liabilities of trade unions – fund for political purpose – general funds – amalgamation of trade unions – immunity from civil and criminal liability – books and returns – penalties – dissolution, Minimum wages act 1948 – interpretation – minimum wages – procedure for fixing wages – committee and adversary boards – wages in kind – payment of minimum wages.

# Unit – III THE INDUSTRIAL DISPUTES ACT, 1947

Definition of authorities – procedure and power of authorities – reference to arbitration – strikes and lock outs-lay off and retrenchments

## Unit – IV THE WORKMEN'S COMPENSATION ACT, 1923

Nature and scope – definitions – workmen's compensation – employer's liability – meaning of accident – compensation – permanent, partial and temporary disablement – compensation of half monthly payment (Table not necessary)

## Unit – V THE EMPLOYEE'S PROVIDENT FUND ACT, 1952

Preliminaries – provident fund scheme – provisions regarding contribution to the fund; The Employee's State Insurance Act, 1948. Nature and scope – contribution – benefits – disputes and claims.

#### **Text Book:**

Mercantile law – N.D.Kapoor

## **Books for Reference:**

Mercantile Law
 Hand Book of Mercantile Law
 Labour legislations in India
 M.C.Shukla.
 E.Venkatesan
 R.N.Bose.