

MANGALORE UNIVERSITY

Suggested programme structure for the Under Graduate Programmes

[B.Com (Computer Application)]

Semester	Course 1	Course 2	Course 3	Elective / Optional	Course	Language	Compulsory	Total Credit	Total Working hours.
I	5 [B.Com]	5 [B.Com]	5(3T+2P) [Com.App.]	3 [Com.App.]		3+3	2	26	5+5+4+4+4+4+4+3=33
II	5(3T+2P) [Com.App.]	5(3T+2P) [Com.App.]	5 [B.Com]	3 [B.Com]		3+3	2	26	4+4+4+4+5+4+4+4+3=36
III	5 [B.Com]	5 [B.Com]	5(3T+2P) [Com.App.]	2 [Com.App.]		3+3	2 [Com.App.]	25	5+5+4+4+2+4+4+2=30
IV	5(3T+2P) [Com.App.]	5(3T+2P) [Com.App.]	5 [B.Com]	2 [B.Com]		3+3	2 [B.Com]	25	4+4+4+4+5+2+4+4+2=33
V	5(3T+2P) [Com.App.]	5(3T+2P) [Com.App.]	5 [B.Com]	3 [B.Com]	3 [Com.App.]		2 [B.Com]	23	4+4+4+4+5+4+4+2=31
VI	5 [B.Com]	5 [B.Com]	5(3T+2P) [Com.App.]	3 [Com.App.]	3 [B.Com.]		2 [Com.App.]	23	5+5+4+4+4+4+2=28
								148	191

*Languages 3 credit – 4 contact hours

* 3 credits Courses - 4 contact hours

Bachelor of Commerce(Vocational)Computer Applications

Programme Outcomes (PO) of BCom(vocational)Computer Applications Degree Programme

The Bachelor of Commerce(BCom) programme has the core objective of preparing employable and resourceful graduates. With this positive outlook, the **programme outcomes** of BCom would be as follows:

- a. To provide students with the knowledge, skills, attitudes and values that will help them take decisions for their lives.
- b. Hands on tools to help them in the world of business and commerce with in depth awareness of the contents of different courses under the Programme.
- c. Holistic development of the personality to understand and actively participate in the well-being of the society.
- d. Work collaboratively and productively in teams. Critically evaluate new ideas, research findings, methodologies and theoretical framework in their chosen elective field.
- e. Courses like Financial Accounting, Quantitative Techniques, and Foundation of Commerce will build the basics of the field and help a student choose electives in the 3rd & 4th Semester. Corporate Accounting course will help a student build confidence in the accounting knowledge of the corporate world, Business and Corporate Law will strengthen the legal aspects of the business, Financial Management, Direct Tax, Cost & Management Accounting & GST will help in all round growth of a learner about the working of any business.

Programme Objectives of BCom Degree

- a. To create Employable and resourceful Graduates ready to seek either fruitful employment or build in confidence to pursue entrepreneurship.
- b. Demonstrate leadership skills in all walks of life, be it personal or professional.
- c. Become academically brilliant and inculcate research skills to add to the existing stock of knowledge in the public domain.
- d. Create an unfulfilling urge to become enriching global citizens and
- e. Overall a constructive citizen of our country.

Scheme of Teaching and Evaluation for BCom (Vocational) Computer Applications Programme

Semester I								
Sl. No.	Course Code	Title of the Course	Category of Courses	Teaching Hours per Week	SEE	IA	Total Marks	Credits
1		Language-I	Lang	4	80	20	100	3
2		Language-II	Lang	4	80	20	100	3
3	BCom-CAT- 1.1	Quantitative Techniques-I	Core	5	80	20	100	5
4	BCom-CAT- 1.2	Financial Accounting I	Core	5	80	20	100	5
5	BCom-CAT- 1.3	Information Technology	Core	4	80	20	100	3
6	BCom-CAP-1.4	IT and C Lab	Practical	4	40	10	50	2
7	BCom-CAT-1.5	Problem Solving with C	Optional	4	80	20	100	3
8		Constitutional values	Compulsory	3	40	10	50	2
Sub-Total				33				26

Semester II								
Sl. No.	Course Code	Title of the Course	Category of Courses	Teaching Hours per Week	SEE	IA	Total Marks	Credits
1		Language–I	Lang	4	80	20	100	3
2		Language–II	Lang	4	80	20	100	3
3	BCom-CAT- 2.1	Financial Accounting-II	Core	5	80	20	100	5
4	BCom-CAT- 2.2	Desktop Publishing	Core	4	80	20	100	3
5	BCom-CAT- 2.3	Database Management System	Core	4	80	20	100	3
6	BCom-CAP- 2.4	DTP Lab	Practical	4	40	10	50	2
7	BCom-CAP-2.5	DBMS Lab	Practical	4	40	10	50	2
	BCom-CAT- 2.6	Quantitative Analytics / Fundamentals of Organisational Behaviour	Optional	4	80	20	100	3
8		Environmental studies	Compulsory	3	40	10	50	2
Sub–Total				36				26

SEMESTER I

QUANTITATIVE TECHNIQUES-I

5 Hours per week

60 Hours

COURSE OUTCOMES:

After completing the course, the student will be able to

1. Study concerning metrics of dispersion, mean, median, and mode.
2. Connect a formal quantitative approach to problem solving and decision-making.
3. Utilize the idea of index numbers to comprehend current market conditions
4. Compute the ratios, proportions, discounts, and percentages that are utilized in business.

COURSE CONTENTS:

Module	Particulars	No of hrs
Module 1	Introduction and Basic Concepts Introduction to Statistics: Meaning and Definitions (Singular and Plural), Types of Data and Variables, Measures of Central Tendency-Arithmetic Mean-Properties (Combined Mean Included), Median and Mode.	12
Module 2	Descriptive Statistics of Univariate Distribution Measures of dispersion, Absolute and Relative Measures, Types-Range, Quartile deviation, Mean deviation, Standard Deviation. Coefficient of Variation and Variance	12
Module 3	Index Numbers Meaning and Uses of Index Numbers, Steps in the Construction of Index Numbers, Construction of Index Numbers: Simple and Weighted Average of Price Relatives, Weighted Aggregative Method: Laspeyres's, Paasche's, and Fisher's Index Numbers Tests of consistency of index number, time reversal, and factor reversal. Consumer Price Index Number: Aggregative Expenditure Method and Family Budget Method.	12
	Number System and Indices Introduction- Natural Numbers, Whole Numbers, Integers-Prime	12

Module 4	numbers -Rational and Irrational Numbers (simple Problems on sum of Natural numbers.....) Real Number- HCF and LCM calculations. Indices and Laws of Indices: Problems	
Module 5	Commercial Arithmetic Concept of Percentages- problems on Profit/Loss,, Simple Interest, Compound Interest, Nominal and Effective Rate of Interest, Cash Discount and Trade Discount.	12

Skill Development Activities

1. Visit the college office and collect data regarding student strength, results, etc. and analyze the same using statistical techniques.
2. Visit any Commercial Bank in your area and collect the information about types of loans and the rates of interest on loans
3. Use consumer price data to create and interpret index values in order to analyze inflation and economic trends.
4. Any other Activities which are relevant to the course

Books for Reference:

1. Business Statistics- S.C. Gupta
2. Business Mathematics- D.C. Sanchete & V.K. Kapoor, Sulthan Chand and sons
3. Business Statistics- S.P. Gupta, S.E. Gupta, B.N. Gupta
4. Business Mathematics-Madappa and Sridhara Rao, Shubhash Publications
5. Business Mathematics, S. N Doraira, United Publication
6. Financial Mathematics, A Lenin Jyothi, Himalaya Publications,Mumbai
7. Business Statistics & Mathematics, Vittal
8. Business Mathematics – S.P Gupta
9. Business Mathematics – Dr. Amarnath Dikshit & Dr. Jinendra Kumar Jain, Himalaya Publications
10. Business Mathematics – Kashyap Trivedi, Chirag Trivedi, Pearson Publications
11. Comprehensive Statistical Methods – P.N. Arora, Sumeet Arora & S.Arora, Chand Publications

Financial Accounting - I

5 Hours per week

60 Hours

COURSE OUTCOMES:

After completing the course, the student will be able to

1. Understand the need of maintaining proper books of records of financial nature for an organisation.
2. Prepare financial statements of a sole trader to assess the financial position and results.
3. Understand the meaning and financial records of a non-trading concerns.

COURSE CONTENTS:

Module	Particulars	No of Hrs
Module 1	Introduction to Accounting: Meaning of Accounting – Basic Terms in Accounting – Entity, Business Transaction, Capital, Drawings, Assets, Liability, Debtor, Creditor, Stock, Purchases and Sales. Accounting Concepts – Meaning – Types (Business Entity, Money Measurement, Going Concern, Accounting Period, Cost, Dual Aspect, Revenue Recognition, Matching, Accrual, Objective Evidence) Accounting Conventions – Conservatism, Consistency, Full Disclosure and Materiality. Basis of Accounting – Cash & Accrual, Systems of Accounting – Single & Double Entry. Rules of Debit & Credit as per American Approach - Accounting Equation Accounting Cycle – Journal, Ledger & Trial Balance	12
Module 2	Depreciation Accounting: Meaning of depreciation and amortisation, Causes, Factors determining economic life of the asset – Methods of charging depreciation Accounting treatment for charging depreciation under Straight Line Method & Written Down Value Method - Change in Method of Depreciation	12
	Final Accounts of Sole Trading Concerns: Preparation of Trading & Profit & Loss Account and Balance Sheet of a Sole	

Module 3	Trader. Adjustments – Closing Stock, Outstanding & Prepaid Expenses, Accrued Incomes & Incomes Received in Advance, Bad Debts & Provisions for Doubtful Debts, Provision for discount on Debtors, Depreciation, Interest on Capital & Drawings, Manager's Commission, Goods Sent on Sale or Return basis, Treatment of deferred revenue expenditure.	12
Module 4	Final Accounts of Not for Profit Organisations: Meaning & Characteristics of Non- Profit Organisations Meaning of Capital & Revenue Income & Expenditure – Deferred Revenue Expenditure Meaning of Receipts & Payment Account, Income & Expenditure Account and Balance Sheet. Differences between Income & Expenditure Account and Receipt and Payments Account. Preparation of Income & Expenditure and Balance Sheet when Receipts & Payment Account is given with adjustments for existing and new organisations.	12
Module 5	Bank Reconciliation Statement: Meaning & Reasons for difference between Cash book and Pass book Balance Problems on preparation of BRS (problems when cash book and pass extract is given to be included)	12

Skill Development:

1. Visit minimum three Sole Trading Concern and examine its accounting practices.
 2. Identify a non-trading concern and assist them in preparing its financial statements.
 3. Apply deprecation methods to real life scenarios.
- Develop numerical, analytical and decision-making abilities

Books for Reference:

1. ICAI Study Materials on Principles & Practice of Accounting, Accounting and Advanced Accounting
2. SP Iyengar, Advanced Accounting, Sultan Chand & Sons, Vol. 1
3. Advanced Accounting Shukla M.C., Grewal T.S., S Chand, Vol. 1
4. Advanced Accounting, Gupta R.L., Sultan Chand & Sons, Vol. 1
5. Advanced Accounting Jain & Narang, Kalyani Publishers, Vol. 1

6. S.N. Maheshwari, and. S. K. Maheshwari. Financial Accounting. Vikas Publishing House, New Delhi.
7. B.S. Raman, Financial Accounting Vol. I & II, United Publishers & Distributors.

Note: Latest edition of text books may be used.

Program Name	B.Com-Computer applications	Semester	I
Course Title	Information Technology (Theory)		
Course Code:	BCom-CAT- 1.3	No. of Credits	03
Contact hours	4 Hours per week	Duration of SEA/Exam	3 hours
Formative Assessment Marks	20	Summative Assessment Marks	80

Course Outcomes (COs):

On successful completion of the course, the Students will be able to:

- Be able to apply knowledge of computing analyze a problem, and identify and define the computing requirements appropriate to its solution.
- Be able to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.
- Be able to effectively integrate IT based solutions into the user environment

Unit	Description	Hours
1	Introduction to Computers: Introduction, Characteristics computers, Evolution computers Generation of Computers, Classification of computers, the computer system, Application of computers. Number system: Introduction, Number system, Conversion between number bases, Arithmetic system, signed and unsigned numbers, concept of overflow, Binary coding. Computer Architecture: Introduction, Central processing unit, main memory unit, interconnection of units, cache, communication between	13

	various units of a computer system. Primary memory: Introduction, memory representation, memory hierarchy, Random access memory, Types of RAM, Read-only memory, Types of ROM.	
2	Secondary Storage: Introduction, classification, magnetic tape, magnetic disk, Optical disk, Magneto-optical disk, Memory stick, Universal serial bus, Mass storage devices. Input devices: Introduction, Types of input devices, Optical character recognition, Optical Mark Recognition, Magnetic ink character recognition, Bar code reader, Output devices: Introduction, Types of output, Classification of output devices, Terminals.	13
3	Computer Program: Introduction, algorithm, flowchart. Computer languages: Introduction, Evolution of programming languages, classification of programming languages, generation of programming languages, Features of a good programming language, selection of a programming language. Computer software: Introduction, software definition, relationship between software and hardware, software categories, terminology software Network basics: Computer networks, Network topologies, Network devices.	13
4	Internet basics: Introduction, Evolution, Basic internet terms, getting connected to internet, internet Applications, Working with Application Software, Productivity software: Word processing software, Spreadsheet software, presentation software: Introduction, PowerPoint environment, creating a new presentation, , working with different views, using masters, adding animation, adding transition, running slides Database and DBMS: working with database, RDBMS.	13
Text Books: 1. ITL Education Solutions Limited, Introduction to Information Technology, Pearson Education India; 2 edition, 2012. 2. Peter Norton, Introduction to Computers, 7th edition, Tata McGraw Hill Publication, 2017 (Unit – IV).		

Pedagogy: Lecture/ PPT/ Videos/ Animations/ Role Plays/ Think-Pair-Share/ Predict-Observe- Explain/ Demonstration/ Concept mapping/ Case Studies examples/ Tutorial/ Activity/ Flipped Classroom/ Jigsaw/ Field based Learning/ Project Based Learning/ Mini Projects/ Hobby Projects/ Forum Theatre/ Dance/ Problem Based Learning/ Game Based Learning/ Group Discussion/ Collaborative Learning/ Experiential Learning / Self Directed Learning etc.

Program Name	B.Com-Computer applications	Semester	I
Course Title	Problem Solving with C (Theory)		
Course Code:	BCom-CAT- 1.5	No.of Credits	03
Contact hours	4 Hours per week	Duration of SEA/Exam	3 hours
Formative Assessment Marks	20	Summative Assessment Marks	80

Course Outcomes (COs):

After completing this course satisfactorily, a student will be able to:

- Confidently operate Desktop Computers to carry out computational tasks
- Understand working of Hardware and Software and the importance of operating systems
- Understand programming languages, number systems, peripheral devices, networking, multimedia and internet concepts
- Read, understand and trace the execution of programs written in C language
- Write the C code for a given problem
- Perform input and output operations using programs in C
- Write programs that perform operations on arrays

Unit	Description	Hours
1	Overview of C: History of C, Importance of C Program, Basic structure of a C-program, Execution of C Program. C Programming Basic Concepts: Character set, C token, Keywords and identifiers, Constants, Variables, data types, Declaration of variables, assigning values to variables, defining symbolic constants. Input and output with C: Formatted I/O functions - printf and scanf, control stings and escape sequences, output	13

	specifications with printf functions; Unformatted I/O functions to read and display single character and a string - getchar, putchar, gets and puts functions.	
2	Operators & Expressions: Arithmetic operators; Relational operators; Logical operators; Assignment operators; Increment & Decrement operators; Bitwise operators; Conditional operator; Special operators; Operator Precedence and Associativity; Evaluation of arithmetic expressions; Type conversion. Control Structures: Decision Making and Branching - Decision making with if statement, simple if statement, the if else statement, nesting of if ... else statements, the else if ladder, the switch statement, the ?: operator, the go to statement. Decision making and looping - The while statement, the do statement, for statement, nested loops, exit, break, jumps in loops.	13
3	Derived data types in C: Arrays - declaration, initialization and access of one-dimensional and two dimensional arrays. programs using one- and two-dimensional arrays, sorting and searching arrays. Handling of Strings: Declaring and initializing string variables, reading strings from terminal, writing strings to screen, Arithmetic operations on characters, String handling functions - strlen, strcmp, strcpy, strstr and strcat; Character handling functions - toascii, toupper, tolower, isalpha, isnumeric etc. User-defined functions: Need for user-defined functions, Declaring, defining and calling C functions, return values and their types, Categories of functions: With/without arguments, with/without return values. Nesting of functions. Recursion: Definition, example programs. Storage classes: Automatic, Global, Static, Register.	13
4	Pointers: Understanding pointers, accessing the address of a variable, declaring and initializing pointers, accessing a variable through its pointer, pointer expression, pointer increments and scale factor, pointers and arrays, pointer and strings. Structures and unions: Structure definition, giving values to members, structure initialization, comparison of structure variables, arrays of structures, arrays within structures,	13

	Structure and functions, structures within structures. Unions File Handling in C: Create in Read/Write and Append mode, copying file. The Pre-processor: Macro substitution, file inclusion.	
Text Book: 1. E. Balagurusamy, Programming in ANSI C, 7th Edition, Tata McGraw Hill Reference Books: 1. Herbert Schildt, C: The Complete Reference, 4th Edition 2. Brain W. Kernighan, C Programming Language, 2nd Edition, Prentice Hall Software 3. Kernighan & Ritchie: The C Programming Language, 2nd Edition, PHI 4. Kamthane, Programming with ANSI and TURBO C, Pearson Education 5. V. Rajaraman, Computer Programming in C, 2nd Edition, PHI 6. S. Byron Gottfried, Programming with C, 2nd Edition, TMH 7. Yashwant Kanitkar, Let us C, 15th Edition, BPB 8. P.B. Kottur, Computer Concepts and Programming in C, 23rd Edition, Sapna BookHouse		

Pedagogy: Lecture/ PPT/ Videos/ Animations/ Role Plays/ Think-Pair-Share/ Predict-Observe- Explain/ Demonstration/ Concept mapping/ Case Studies examples/ Tutorial/ Activity/ Flipped Classroom/ Jigsaw/ Field based Learning/ Project Based Learning/ Mini Projects/ Hobby Projects/ Forum Theatre/ Dance/ Problem Based Learning/ Game Based Learning/ Group Discussion/ Collaborative Learning/ Experiential Learning / Self Directed Learning etc.

Program Name	B.Com-Computer applications	Semester	I
Course Title	IT and C Lab		
Course Code:	BCom-CAP- 1.4	No.of Credits	02
Contact hours	4 Hours per week	Duration of SEA/Exam	3 hours
Formative Assessment Marks	10	Summative Assessment Marks	40

PART-A

WORD

1. Prepare a word document that includes the following features inserting picture, bulleting and numbering, formatting (size, bold, underline, italic, superscript, subscript, color etc), border and shading, paragraph and line alignment.
2. Prepare a word document with a table to insert Roll No, name, class, and marks in three subjects. Find total and average.
3. Prepare a interview call letters for five candidates. The letter shall contain information about company, job profile and instructions about the interview. Using mail merge features.

POWER POINT

Prepare a Power point presentation with at least four slides (in each exercise) including picture, chart and other contents. Apply various transition and animations.

Exercise No. 1: About your college.

Exercise No. 2: Indian Banking System

PART-B

EXCEL

1. Create an EMPLOYEE data having employees name, designation and basic pay of 5 employees.

Calculate DA, HRA, Gross Pay, Income tax, Net pay, Provident fund as per the following rule

DA=10% of basic pay

HRA= if basic pay is < 2500, 10% of basic pay else 25% of basic pay

Gross=DA+HRA+Basic pay

Provident fund=12% of Basic pay

Professional tax=Rs 100 if gross is < 10000 else 200

Net Pay=Gross- Professional tax - Provident Fund

2. Prepare a STUDENT table. Insert following information such as RollNo, Name, Class and Marks in three subjects. The insert details of 5 students. Calculate total marks, percentage, result (pass or fail), and Grade (distinction, first class, second class, pass class) as per usual rules.

Draw a column chart showing the RollNo versus Percentage scored.

3. Create a table containing Zones and percentage of commission to be given to a sales man

<u>Zone</u>	<u>Percentage</u>
South	10%
North	12.5%
East	14%
West	13%

Create another table in the same worksheet to store salesman names, zone names, places, names of items sold, rate per unit, quantity sold. Calculate total sales amount for each salesman. For the above table write the formula to compute the commission to be given.

- Show the records of various zones separately.
- Show the records of only East and West zones.
- Display the details of the items which are sold more than 50 no.s in South or North zones.

PART-C

C PROGRAMS

1. Write a program to read radius of a circle and find area and circumference of the circle.
2. Write a program to read three numbers and find the largest of three numbers using nested if statement.
3. Write a program to generate n Fibonacci numbers.
4. Write a program to read a multi-digit number find the sum of the digits, reverse the number and check it for palindrome
5. Program to read marks scored by n students and find the average of marks (Demonstration of single dimensional array).
6. Write a program to add two matrices (Demonstration of two dimensional arrays).
7. Write a program to read a string and to find the number of alphabets, digits, vowels, consonants, spaces and special characters.
8. Write a program to find the nC_r of a given number using factorial function.
9. Write a program using structure, read N students RollNo, Name and Marks in three subjects. Calculate Total, Percentage and Grade for N students.

Evaluation Scheme for Lab Examination:

Assessment Criteria		
Program-1	PART-A Writing:5 Marks Execution:5Marks	10Marks
Program-2	PART-B Writing:5 Marks Execution:5Marks	10Marks
Program-3	PART-C Writing:8 Marks Execution:7Marks	15Marks
Practical Record		05 Marks
Total		40Marks

Duration:3 Hours

Max.Marks:80

Note: Answer any ten Questions from Part-A. And one full Questions from each unit in Part-B

Part-A

1.

10*2=20

- a.
- b.
- c.
- d.
- e.
- f.
- g.
- h.
- i.
- j.
- k.
- l.

Part-B

UNIT-I, II, III, IV

Each unit contains two main questions and it carry 15 Marks.

Each main questions contain 2 or more sub question.

4*15=60

UNIT-I

2.

- a.
- b.
- c.

3.

- a.
- b.
- c.



ಕ್ರಮಾಂಕ/ No. : ಎಂಯು/ಎಸಿಸಿ/ಸಿಆರ್ 13/2024-25/ಎ8

ಕುಲಸಚಿವರ ಕಛೇರಿ

ಮಂಗಳಗಂಗೋತ್ರಿ - 574 199

Office of the Registrar
Mangalagangothri - 574 199

ದಿನಾಂಕ/Date:05/05/2025

ರಿಗೆ:

ಮಂವಿವಿ.ದ ಸಂಯೋಜನೆಗೊಳಪಟ್ಟ/ಘಟಕ/

ಸ್ವಾಯತ್ತ ಕಾಲೇಜುಗಳ ಪ್ರಾಂಶುಪಾಲರುಗಳಿಗೆ.

ಮಾನ್ಯರೇ ,

ವಿಷಯ: ದ್ವಿತೀಯ ಸೆಮಿಸ್ಟರ್ ಬಿ.ಕಾಂ (ವೊಕೇಶನಲ್)ಕಂಪ್ಯೂಟರ್ ಅಪ್ಲಿಕೇಶನ್ ಕಾರ್ಯಕ್ರಮದ
ಪಠ್ಯಕ್ರಮದಲ್ಲಿನ ಮಾರ್ಪಾಡುಗಳ ಬಗ್ಗೆ.

ಉಲ್ಲೇಖ: 1. ಈ ಕಛೇರಿ ಪತ್ರ ಸಮಸಂಖ್ಯೆ ದಿನಾಂಕ: 25.02.2025

2. ಪದವಿ ಮಟ್ಟದ ವಾಣಿಜ್ಯ ಅಧ್ಯಯನ ಮಂಡಳಿ ಅಧ್ಯಕ್ಷರ ಪತ್ರ ದಿನಾಂಕ: 25.04.2025

ಮೇಲಿನ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿ, ಉಲ್ಲೇಖ (1) ರನ್ವಯ ಜಾರಿಗೊಳಿಸಲಾಗಿರುವ ದ್ವಿತೀಯ ಸೆಮಿಸ್ಟರ್ ಬಿ.ಕಾಂ
(ವೊಕೇಶನಲ್)ಕಂಪ್ಯೂಟರ್ ಅಪ್ಲಿಕೇಶನ್ ಕಾರ್ಯಕ್ರಮದ ಪಠ್ಯಕ್ರಮದಲ್ಲಿ ಅಳವಡಿಸಲಾಗಿರುವ Optional ವಿಷಯವಾದ
Quantitative Techniques II ನ ಘಟಕಗಳನ್ನು ಮಾರ್ಪಡಿಸಿ ಶಿರೋನಾಮೆಯನ್ನು Quantitative Analytics ಎಂಬುದಾಗಿ
ಬದಲಾಯಿಸಿದ್ದು, ಪಠ್ಯಕ್ರಮವನ್ನು ಮಾಹಿತಿ ಹಾಗೂ ಮುಂದಿನ ಕ್ರಮಕ್ಕಾಗಿ ಈ ಮೂಲಕ ಕಳುಹಿಸಲಾಗಿದೆ.

ತಮ್ಮ ವಿಶ್ವಾಸಿ

R. R. R.

ಕುಲಸಚಿವರ ಪರವಾಗಿ

ಪ್ರತಿ:

1. ಪ್ರೊ. ಈಶ್ವರ ಪಿ, ಅಧ್ಯಕ್ಷರು, ಪದವಿ ಮಟ್ಟದ ವಾಣಿಜ್ಯ ಅಧ್ಯಯನ ಮಂಡಳಿ ಹಾಗೂ ಪ್ರಾಧ್ಯಾಪಕರು, ಸ್ನಾತಕೋತ್ತರ
ವಾಣಿಜ್ಯ ವಿಭಾಗ, ಮಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮಂಗಳಗಂಗೋತ್ರಿ
2. ನಿರ್ದೇಶಕರು, DUIMS , ಮಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮಂಗಳಗಂಗೋತ್ರಿ
3. ಸಹಾಯಕ ಕುಲಸಚಿವರು/ಅಧೀಕ್ಷರು, ಶೈಕ್ಷಣಿಕ ವಿಭಾಗ, ಮಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಮಂಗಳಗಂಗೋತ್ರಿ

Bachelor of Commerce(Vocational)Computer Applications

Programme Outcomes (PO) of BCom(vocational)Computer Applications Degree Programme

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- b. Hands on tools to help them in the world of business and commerce with in depth awareness of the contents of different courses under the Programme.
- c. Holistic development of the personality to understand and actively participate in the well-being of the society.
- d. Work collaboratively and productively in teams. Critically evaluate new ideas, research findings, methodologies and theoretical framework in their chosen elective field.
- e. Courses like Financial Accounting, Quantitative Techniques, and Foundation of Commerce will build the basics of the field and help a student choose electives in the 3rd & 4th Semester. Corporate Accounting course will help a student build confidence in the accounting knowledge of the corporate world, Business and Corporate Law will strengthen the legal aspects of the business, Financial Management, Direct Tax, Cost & Management Accounting & GST will help in all round growth of a learner about the working of any business.

Programme Objectives of BCom Degree

- a. To create Employable and resourceful Graduates ready to seek either fruitful employment or build in confidence to pursue entrepreneurship.
- b. Demonstrate leadership skills in all walks of life, be it personal or professional.
- c. Become academically brilliant and inculcate research skills to add to the existing stock of knowledge in the public domain.
- d. Create an unfulfilling urge to become enriching global citizens and
- e. Overall a constructive citizen of our country.

Scheme of Teaching and Evaluation for BCom (Vocational) Computer Applications Programme

Semester I								
Sl. No.	Course Code	Title of the Course	Category of Courses	Teaching Hours per Week	SEE	IA	Total Marks	Credits
1		Language-I	Lang	4	80	20	100	3
2		Language-II	Lang	4	80	20	100	3
3	BCom-CAT- 1.1	Quantitative Techniques-I	Core	5	80	20	100	5
4	BCom-CAT- 1.2	Financial Accounting I	Core	5	80	20	100	5
5	BCom-CAT- 1.3	Information Technology	Core	4	80	20	100	3
6	BCom-CAP-1.4	IT and C Lab	Practical	4	40	10	50	2
7	BCom-CAT-1.5	Problem Solving with C	Optional	4	80	20	100	3
8		Constitutional values	Compulsory	3	40	10	50	2
Sub-Total				33				26

Semester II								
Sl. No.	Course Code	Title of the Course	Category of Courses	Teaching Hours per Week	SEE	IA	Total Marks	Credits
1		Language–I	Lang	4	80	20	100	3
2		Language–II	Lang	4	80	20	100	3
3	BCom-CAT- 2.1	Financial Accounting-II	Core	5	80	20	100	5
4	BCom-CAT- 2.2	Desktop Publishing	Core	4	80	20	100	3
5	BCom-CAT- 2.3	Database Management System	Core	4	80	20	100	3
6	BCom-CAP- 2.4	DTP Lab	Practical	4	40	10	50	2
7	BCom-CAP-2.5	DBMS Lab	Practical	4	40	10	50	2
	BCom-CAT- 2.6	Quantitative Analytics / Fundamentals of Organisational Behaviour	Optional	4	80	20	100	3
8		Environmental studies	Compulsory	3	40	10	50	2
Sub–Total				36				26

Semester II

Course Code B.Com. – CAT -2.1

Financial Accounting - II

5 Hours per week

60 Hours

COURSE OUTCOMES:

After completing the course, the student will be able to

1. Learn about Accounting Standards and Indian Accounting standards.
2. Understand the recent developments in the field of financial accounting.
3. Learn to deal with special transactions and situations while preparing financial statements.

COURSE CONTENTS:

Module	Particulars	No of Hrs
Module 1	Accounting Standards and Recent Developments in Accounting: Accounting Standards - Meaning, Procedure to issue – Applicability Indian Accounting Standards – Meaning – Applicability Recent Trends in Accounting –Computerised Accounting - Big data Analytics, Cloud Computing in Accounting, Accounting with drones.	12
Module 2	Conversion of Single Entry into Double Entry System: Introduction – Meaning – Limitation of Single-Entry System – Differences between Single Entry & Double Entry System Problems on Conversion of Single Entry into Double Entry (preparing Opening Statement of Affairs, Cash Book, Total Debtors Account, Total Creditors Account, Trading & Profit & Loss Account and Balance Sheet).	12
Module 3	Hire Purchase Accounting: Introduction, Meaning of Hire Purchase, Features Terms used – Hire Purchaser, Hire Vendor, Cash Price, Hire Purchase Price, Total Interest, Down Payment & Net Cash Price Accounting for Hire Purchase transactions in the books of Hire Purchaser (when Cash Price and Rate of Interest is given) under Accrual System only.	12

	Repossession – Complete & Partial	
Module 4	Departmental Accounts: Meaning, Types of Departments, Advantages, Basis of Allocation of common expenses and income among various departments Departmental Accounts – Columnar Trading & Profit & Loss Account, General Profit & Loss Account and Consolidated Balance Sheet Treatment of Inter Departmental Transfers at Cost and Selling Price.	12
Module 5	Royalty Accounts: Meaning – Types of Royalty. Terminologies – Lessor, Lessor, Minimum Rent, Short working – Recoupment of Short working. Accounting Treatment in the books of Lessee with opening Minimum Rent Account.	12

Skill Development:

1. Collect a copy of Hire Purchase agreement and examine the various terminologies.
2. Identify a business where royalty accounting is applied.
3. Learn to prepare financial statement with incomplete records using imaginary figure.
4. Know the differences between Accounting Standards and Indian Accounting Standards.

Books for Reference:

1. ICAI Study Materials on Principles & Practice of Accounting, Accounting and Advanced Accounting.
2. SP Iyengar, Advanced Accounting, Sultan Chand & Sons, Vol. 1
3. Advanced Accounting Shukla M.C., Grewal T.S., S Chand, Vol. 1
4. Advanced Accounting, Gupta R.L., Sultan Chand & Sons, Vol. 1
5. Advanced Accounting Jain & Narang, Kalyani Publishers, Vol. 1
6. S.N. Maheshwari, and. S. K. Maheshwari. Financial Accounting. Vikas Publishing House, New Delhi.
7. B.S. Raman, Financial Accounting Vol. I & II, United Publishers & Distributors.

Note: Latest edition of text books may be used.

Program Name	B.Com (Computer Applications)	Semester	II
Course Title	Desktop Publishing (Theory)		
Course Code:	BCom-CAT- 2.2	No. of Credits	03
Contact hours	4 Hours per week	Duration of SEA/Exam	3 hours
Formative Assessment Marks	20	Summative Assessment Marks	80

Course Outcomes (COs):

On successful completion of the course, the Students will be able to:

- Gain basic understanding of the field of desktop publishing
- Acquire skills of preparing projects for publication which include layout and design
- Learn both the technical and aesthetic aspects of text, image manipulation and integration
- Learn using design as a means of communication, along with using tools to implement effective design strategies

Unit	Description	Hours
1	Fundamentals of DTP: The possibilities of DTP, choosing the printing house, choosing the paper quality, Choosing the right colors. Choosing Fonts: Font styles, parts of letter, Serif Fonts, Sans Serif Fonts, Ornamental Fonts, Fonts used for Paragraphs or General Text, Dingbats, Font size Hardware Requirements for DTP: Scanner, Monitor Resolution, memory Requirements, Printers Beginning Design: Beginning Steps General Design Considerations: Relevance, Proportion, Orientation Placing, Consistency, Contrast, Restraint, Attention to Details, The Total picture Text Organization: Headlines, Kickers, Subheads, Captions, Headers and footers, Pull Quotes, Bullet Lists, Nameplates and Logos Design Common Media Publications: Newsletters, Letter heads, small Advertisements, Long Advertisements, Visiting cards, Brochures, Catalogues, Redesigning Working with images: Comparing Bitmaps and Vector Images, understanding Image resolution, understanding pixel Logic	13
2	Introduction to Corel DRAW graphics suit x4: Getting started with Coreldraw X4, Exploring the workspace of Coreldraw X4, drawing basic geometric figures, saving the drawing, opening an existing document, previewing with the drawing, working with page layout, closing the drawing and quitting Coreldraw. Working with lines: About lines in Coreldraw: Drawing a curve, drawing calligraphic lines, About outline tool: defining lines and outlines setting, creating a calligraphic outline, adding an arrowhead	13

	Working with objects: Selecting and deselecting objects, deleting objects, sizing objects, rotating objects, combining objects, grouping in Coreldraw: grouping object, ungrouping objects. Selecting color for an object, filling objects. Working with text: Types of text: preparing a layout for using the text, creating artistic text, creating paragraph text, converting text from one type to another, changing the appearances of text, changing a font, changing the font size and color of the text, changing the alignment, applying effects to the text, wrapping paragraph text around objects, fitting text to an object using curve command. Working with bitmaps: Importing a bitmap into a drawing, cropping, resampling and resizing a bitmap.	
3	Getting Familiar with Photoshop CS4: Introducing and launching Photoshop CS4, Exploring the new interface. Move tool, eyedropper tool, zoom tool, type tool. The layer palette, the channels palette, the color palette, the history palette, the brush palette, clone source palette, the actions palette. Opening an existing file or Photoshop document, creating a new document, saving files, reverting files, closing files. Working with images and selections: Changing the resolution of an image, changing the size of a document. Editing images: rotating an image, cropping an image, trim command. Working with selections tool: Marquee tool, working with selections. Lasso tools (3 types of tools only meaning) Magic wand tool (only meaning exclude different options) Drawing painting and retouching tools: Setting the current foreground and background colors, Exploring color picker dialog box (only meaning exclude different components), using eyedropper tool. Using retouching tool, healing brush tool, patch tool, clone stamp tool, eraser tool, background eraser tool, magic eraser tool. Master layers in Photoshop: Working with layers, creating a new layer, hiding and showing layers, deleting layers, Applying blend modes.	13
4	Getting Started with Flash Professional CS6: Starting Flash Professional CS6, Creating new flash File, Exploring the Flash Professional Cs6 workshop (The application Bar, Stage, panels, using tool panels, properties inspector). Transform Panel, swatches panel, color panel, scene panel. Understanding Timeline and layers, Motion Editor, Creating or choosing a new workspace, Saving Flash Files. Working with Graphics: Bitmap and vector graphics, Merge Drawing mode, Object drawing mode, Primitive drawing mode, Creating graphics in flash professional CS6, Selecting Objects (Using selection tool, Sub selection tool, lasso tool, selection using lasso tool, Lasso tool with polygon modifier, line tool), Drawing rectangles and ovals, Rectangles and shapes, ovals and circles, polygon and stars, pencil tool, pen tool. Draw straight line with the pen tool, creating a curved path using pen tool, Adding anchor points on paths, deleting corner and curve points, painting with the brush tool, spray brush tool, Drawing patterns with the deco tool. Paint bucket tool, In bottle tool, eyedropper tool, using eraser tool,	13

	Transforming objects, Distorting objects, rotating and skewing objects. Using gradient and bitmap fills (All) Working with symbols and instances: Using symbols, creating symbols, duplicate symbols, create instances, editing instance properties, break apart a symbol instance, editing symbols Timeline with timeline: Working with timeline, about layer, create a layer, rename layer, outline layer, viewing layer, guide layer. Creating animation, types of animation, Classification of animation in the timeline. Understanding motion tweens, Easing tween animation, orienting objects to the path, swapping targets, motion presets	
Text Books: 1. Comdex 9-in-1 DTP Course Kit by Vikas Gupta, Dreamtech Press Publications 2. Adobe Flash Professional CS6 Training Guide by Prof. Satish Jain, BPB Publications, First Edition Reference Books: 1. Design Elements, Colour Fundamentals: A Graphic Style Manual for Understanding How Colour Impacts Design. AarisSherin 2. Design Media – Techniques for watercolour, pen and ink, pastel and coloured markers. R. Kasprin		
Pedagogy: Lecture/ PPT/ Videos/ Animations/ Role Plays/ Think-Pair-Share/ Predict-Observe-Explain/ Demonstration/ Concept mapping/ Case Studies examples/ Tutorial/ Activity/ Flipped Classroom/ Jigsaw/ Field based Learning/ Project Based Learning/ Mini Projects/ Hobby Projects/ Forum Theatre/ Dance/ Problem Based Learning/ Game Based Learning/ Group Discussion/ Collaborative Learning/ Experiential Learning / Self Directed Learning etc.		

Program Name	B.Com (Computer Applications)	Semester	II
Course Title	Database Management System (Theory)		
Course Code:	BCom-CAT- 2.3	No.of Credits	03
Contact hours	4 Hours per week	Duration of SEA/Exam	3 hours
Formative Assessment Marks	20	Summative Assessment Marks	80

Course Outcomes (COs):

At the end of the course, students will be able to:

- Explain the various database concepts and the need for database systems.
- Identify and define database objects, enforce integrity constraints on a database
- Identify entities and relationships and draw ER diagram for a given real-world problem.
- Convert an ER diagram to a database schema and its representation in Relational model.
- Formulate queries in Relational Algebra and implement using Structured Query Language (SQL)
- The importance of transaction processing and concurrency control techniques.

Unit	Description	Hours
1	Database Architecture: Introduction to Database system applications. Characteristics and Purpose of database approach. Data models. Database schema. Database architecture. Data independence. Database languages, interfaces, and classification of DBMS. E-R Model: Entity-Relationship modeling: E-R Model Concepts: Entity, Entity types, Entity sets, Attributes, Types of attributes, key attribute, and domain of an attribute. Relationships between the entities. Relationship types, roles and structural constraints, degree and cardinality ratio of a relationship. Weak entity types, E -R diagram.	13
2	Relational Data Model: Relational model concepts. Characteristics of relations. Relational model constraints: Domain constraints, key constraints, primary & foreign key constraints, integrity constraints and null values. Basics of SQL: Table fundamentals, Data types, CREATE TABLE command, Inserting data into table, Viewing Data in the table, sorting data in a table, Creating a table from a table, Inserting data into a table from another table, Delete operations, Updating the contents of a table, Modifying the structure of tables, Renaming tables, destroying tables, displaying table structure.	13

3	Integrity Constraints: Types of data constraints, IO constraints-The PRIMARY KEY constraint, The FOREIGN KEY constraint, The UNIQUE KEY constraint, Business Rule Constraints- NULL value concepts, NOT NULL constraints, CHECK constraint, DEFAULT VALUE concepts. Operations: Arithmetic Operators, Logical Operators, Range Searching, Pattern Matching, Oracle Table – DUAL, Oracle Function- Types, Aggregate Function, Date Conversion Function. GROUPING DATA FROM TABLES IN SQL: Group By clause, Having clause, sub-queries, JOINS, Using the UNION, INTERSECTION, MINUS clause. Control Structure - Conditional Control, Iterative Control	13
4	Basics of PL/SQL: The Generic PL/SQL Block, Character set, Literals, Data types, Variables, Logical comparisons, Comments PL/SQL Transactions: Cursor-Types of Cursor, Cursor Attributes. Explicit cursor- Explicit cursor Management, Cursor for loop PL/SQL Database Objects: Procedures and Functions, Oracle Packages, Error Handling in PL/SQL. Database triggers: Use of database triggers, Applying database triggers, Syntax of creating triggers. Oracle Packages, Components of an oracle package, use of packages, Packages Specification, Creating packages. Error handling in PL/SQL: Oracle's Named Exception handlers (only predetermined internal PL/SQL Exceptions)	13
Text Books: 1. RamezElmasri and Shamkant B. Navathe, Fundamentals of Database Systems,7th Edition, Pearson Education Asia Publication,2016 2. Ivan Bay Ross, SQL,PL/SQL the Programming Language of Oracle,4th Edition, BPB Publication 2009. Reference Books: 1. Database Systems Concepts, Abraham Silberschatz, Henry Korth, S.Sudarshan, 6thEdition, McGraw Hill, 2010. 2. Introduction to Database System, C J Date, Pearson, 1999. 3. Database Management Systems, Raghu Rama Krishnan and Johannes Gehrke, 3rd Edition, McGraw Hill, 2002		
Pedagogy: Lecture/ PPT/ Videos/ Animations/ Role Plays/ Think-Pair-Share/ Predict-Observe-Explain/ Demonstration/ Concept mapping/ Case Studies examples/ Tutorial/ Activity/ Flipped Classroom/ Jigsaw/ Field based Learning/ Project Based Learning/ Mini Projects/ Hobby Projects/ Forum Theatre/ Dance/ Problem Based Learning/ Game Based Learning/ Group Discussion/		

Collaborative Learning/ Experiential Learning / Self Directed Learning etc.			
Program Name	B.Com (Computer Applications)	Semester	II
Course Title	DTP Lab		
Course Code:	BCom-CAP- 2.4	No.of Credits	02
Contact hours	4 Hours per week	Duration of SEA/Exam	3 hours
Formative Assessment Marks	10	Summative Assessment Marks	40

PART-A

Adobe InDesign

1. Design College day invitation by using In Design tools.
2. Design a News paper cutting.

Adobe Coreldraw X4

1. Create any banner in CorelDraw using different tools
2. Create Business card (visiting card) in CorelDraw using different tools.

PART-B

Adobe Photoshop

1. Create image in Photoshop painting tools or use existing images copy the portions of one image to another image. Use Toolbox options. Marquee Tool (Rectangular Marquee, elliptical Marquee), Move, Lasso Tool, Magic wand and Crop Tools.
2. Create images of artistic architectures using Photoshop painting tools (brush, pencil, color, and paint bucket tools), Drawing tools and retouching tools.
3. Create image or use existing images to create a new layer, delete layer, show and hide layers and apply different blend modes.

Adobe Flash

1. Create a moving butterfly using simple motion tween animation in Adobe Flash.
2. Using Adobe Flash, design a building in background using different tools and simple motion tween animation for moving the bus

Evaluation Scheme for Lab Examination:

Assessment Criteria		
Program-1	PART-A Writing:8Marks Execution:7Marks	15 Marks
Program-2	PART-B Writing:5 Marks Execution:5Marks	20 Marks
Practical Record		05 Marks
Total		40Marks

Program Name	B.Com (Computer applications)	Semester	II
Course Title	DBMS Lab		
Course Code:	BCom-CAP- 2.5	No.of Credits	02
Contact hours	4 Hours per week	Duration of SEA/Exam	3 hours
Formative Assessment Marks	10	Summative Assessment Marks	40

DBMS

SQL Queries

1. Create a table EMPLOYEE using SQL command, employee (empno, ename, desg, dept, gender, salary). Specify primary key and NOT NULL constraints and allow 'M' or 'F' for gender.

Write the following SQL Queries:

- a) Display all the information about all employees.
- b) Display empno,ename and desg of all employees.
- c) Display the details of all female employees.
- d) List empno, ename and desg of all employees whose salary more than 5000.
- e) Display the names of employees who gets the maximum salary.
- f) Display the number of employees working in marketing and sales department.

2. Create table STUDENT using SQL command to store

Column Name	Data Type	Size
rno	Varchar2	6
Name	Char	15
Class	Varchar2	8
Marks1	Number	3
Marks2	Number	3
Marks3	Number	3

Write SQL queries for the following:

- a). Display the structure of the table STUDENT.
- b). Add new column TOTAL and update the contents of TOTAL column of STUDENT table.
- c). Display the students details whose TOTAL is between 70 to 90.
- d). Display the names of students whose name ends with 'th'.
- e). Delete all the records of the table STUDENT.

3. Create a table BOOK using SQL command to store

Column_Name	Data Type	Size
BOOKCODE	Varchar2	10
TITLE	Varchar2	20
PUBLISHER	Varchar2	15
CATEGORY	Varchar2	10
YEAR	Number	04
PRICE	Number	8,2

Write SQL queries for the following:

- List the details of the books whose publisher's name start with 'M'.
 - List the details of publishers having 'A' as the second character in their names.
 - Find the books published in 2010,2011,2012.
 - Display the BOOKCODE, TITLE, PUBLISHER of all books in the descending order of YEAR.
 - Display the details of all books other than **MICROSOFT PRESS** publishers.
4. Create the following tables by identifying primary and foreign keys. Specify the not null property for mandatory keys.
- SUPPLIERS (SUPPLIER_NO, SNAME, SADDRESS, SCITY)

COMPUTER_ITEMS (ITEM_NO, SUPPLIER_NO, ITEM_NAME, IQANTITY)

Write SQL statement for the following:

- List ITEM and SUPPLIER details.
- List the names of the suppliers who are supplying keyboard.
- Display the items supplied by 'Microtech'.
- List the items supplied by the suppliers 'Cats' and 'Electrotech'.

PL/SQL

- Write a PL/SQL program to process a bank transaction whenever a request for withdrawal issued, a check is made if there is sufficient fund in the account. If the fund is not available print the message fund not available.
- Write a PL/SQL program to compute DA, HRA, Tax and net pay of employees which contains the following columns. empno, empname, basicpay, DA,

HRA,TAX,NET PAY. Given HRA is 10% of basicpay, DA is 12% of basicpay, Tax is 10% of basicpay. Using Open, fetch and close statements.

7. Write a PL/SQL program to find factorial of a given number using function.
8. Write a PL/SQL program to compute the selling price of books depending on the book code. The Book table contains columns: BookNo, Book Code, Author, Title and Price.

The selling price= Price-Discout.

The discount is calculated as follows:

Book Code	Discount percentage
A	10% of Price
B	20% of Price
C	25% of Price

Evaluation Scheme for Lab Examination:

Assessment Criteria		
Program-1	PART-A Writing:8Marks Execution:7Marks	15 Marks
Program-2	PART-B Writing:5 Marks Execution:5Marks	20 Marks
Practical Record		05 Marks
Total		40Marks

II Semester B.Com (Voc) (Computer Application):

QUANTITATIVE ANALYTICS

Course Code B.Com. – CAT -2.6

Credits 3

4 Hours per week

48 Hours

COURSE OUTCOMES:

After completing the course, the student will be able to

1. Establish relationships between variables in real-world situations by using methods like regression and correlation.
2. Use the ideas from probability distributions to solve practical issues.
3. Predict future results using time series
4. Recognise the relationship between two variables and how to use ratios and proportions to express it.

COURSE CONTENTS:

Module	Particulars	No of hrs
Module 1	Descriptive Analysis of Bivariate Data: Correlation- Meaning and Definition, Linear and Non-linear correlation, Correlation and causation, Scatter Diagram, Karl Pearson's Co-efficient of Correlation, Calculation and Spearman's Rank Correlation.	12
Module 2	Regression Analysis: Regression Analysis- Principle of Least Squares and Regression lines, Regression equations and estimation. Properties of Regression Coefficients.	12
Module 3	Time Series Analysis and Theory of Probability: Meaning and uses of Time Series, Various components of Time series, determination of Trend using Moving Average and Least square method Theory of Probability: Some important concepts, Addition Theorem of probability for two non-mutually and mutually exclusive events - Multiplication theorem of probability for dependent and independent events. Simple problems	12

Module 4	Ratios and Proportions and Theory of Equations: Definition- Equality of Ratio- Simple Problems. Proportion- definition-Direct Proportion-Inverse Proportion- Continued Proportion- Problems on proportions Equations: Definition - Degree of Equation. Types of Equation - Linear equations and its solution-Simultaneous linear equations- Quadratic equation-Solution by method of factorisation and formula method.	12
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Skill Development Activities

1. Determine the strength and direction of the relationship between advertisement expenditure and sales income by computing the correlation coefficient.
2. Use historical sales data to create a simple linear regression model to predict future sales based on advertisement expenditure.
3. Utilize a time series model to analyze monthly sales data to identify trends and seasonal patterns and generate a forecast for the upcoming year.
4. Instruct the students to use their knowledge of ratios to determine how much of each ingredient they would require to make the recipe for exactly the number of people in the group
5. The task involves resolving a shelf arrangement issue to maximize visibility by utilizing permutations and combinations to explore various arrangements

Books for Reference:

1. Business Statistics- S.C. Gupta
2. Business Mathematics- D.C. Sancheti & V.K. Kapoor, Sulthan Chand and sons
3. Business Statistics- S.P. Gupta, S.E. Gupta, B.N. Gupta
4. Business Mathematics-Madappa and Sridhara Rao, Shubhash Publications
5. Business Mathematics, S. N Dorairaj, United Publication
6. Financial Mathematics, A Lenin Jyothi, Himalaya Publications, Mumbai
7. Business Mathematics – S.P Gupta
8. Business Mathematics – Dr. Amarnath Dikshit & Dr. Jinendra Kumar Jain, Himalaya Publications
9. Business Mathematics – Kashyap Trivedi, Chirag Trivedi, Pearson Publications
10. Comprehensive Statistical Methods – P.N. Arora, Sumeet Arora & S. Arora, Chand Publications

Course Code B.Com. – CAT -2.6

Fundamentals of Organisation Behaviour

4 Hours per week

48 Hours

COURSE OUTCOMES:

After completing the course, the student will be able to

1. Create awareness about how organizational behaviour works in an organization and its role and functions.
2. Develop insight with different theories of motivations and strategies to improve motivation in the workplace.
3. Understand group dynamics and demonstrate skills required for working in groups and team building
4. Understand the concepts of Personality and attitude, Perception and motivation,

COURSE CONTENTS:

Module	Particulars	No of Hrs
Module 1	Introduction to Organisational Behaviour: Meaning of Organizations –Importance of organizations-contributing disciplines to the Organizational Behavior- definitions and meaning of Organization Behaviour - Nature and characteristics of Organizational Behaviour- scope/ key elements of organizational behavior- OB Models- Importance of OB- role of managers in OB – Interpersonal, Informational, decisional roles, challenges & opportunities for OB- Limitations of organizational behavior.	12
Module 2	Foundations of Individual Behavior: Factors affecting Individual Behavior. Personality- Characteristics of Personality- Determinants of personality- Personality traits influencing OB. Attitudes -Features of Attitude- components of attitude- attitude formation- major types of work-related attitudes. Job Satisfaction - Ways to Measure Job Satisfaction- Causes &	12

	Impacts of job satisfaction.	
Module 3	Emotions, Perception and Learning: Emotions & Moods- Basic Set of Emotions- Sources of Emotions and Moods- Emotional Labor- Emotional Intelligence - Elements of Emotional Intelligence- OB Applications of Emotions and Moods. Perception- Factors influencing perception - Perceptual Process- Importance of Perception in OB-Perception and Individual Decision Making- Group Organisational decision-making Learning- Nature of learning- Factors affecting learning- components of learning process.	12
Module 4	Motivation and Group Dynamics: Motivation: Concept, importance and theories of motivation. Maslow's Theory of hierarchical needs, Herzberg's two-factor Theory, McClelland's Theory of Needs, Vroom's Theory of Expectancy. Group Dynamics: Meaning of groups and group dynamics, Formation, Characteristics and Types of groups, Group cohesiveness - Factors influencing group cohesiveness - Group decision making process.	12

Skill Development:

1. Visit any organization and make a study on factors affecting perception.
2. Collect Bio-data of Motivational theory Proposers.
3. Visit nearby organization and analyse the Role of Managers.
4. Make a survey on measures followed by organization regarding Job Satisfaction
5. Any other activity relevant to the course.

Reference Books:

1. Organisation Behaviour An Evidence Approach – Fred Luthans McGraw Hill
2. Organisation Behaviour – Stephen P. Robbins Timothy A Judge
3. Organisation Behaviour by K. Ashwathappa
4. A Text Book of Organisational Behaviour -With Text and cases -CB Gupta- S Chand New Delhi.

5. Personnel Management (Text and Cases) C B Memoria and V.S.P. Rao- Himalaya Publishing House, New Delhi
6. Strategic Management and OrganisationBehaviour _ Dr. Suman Shetty N, Hyderali, Dr. Ravi M .N., and Umesh Shetty, Professional Books Publishers, Hyderabad.