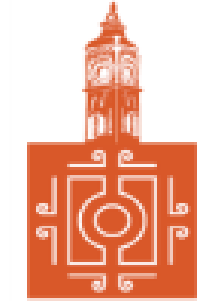


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BE BOUNDLESS



BENGALURU CITY UNIVERSITY

CHOICE BASED CREDIT SYSTEM

(Semester Scheme with Multiple Entry and Exit Options for
Under Graduate Course- as per NEP 2020)

Revised Syllabus for

B.COM - DATA ANALYTICS

2022-23 onwards

DEPARTMENT OF COMMERCE

Central College Campus, Dr. Ambedkar Veedhi, Bengaluru-560001

B.COM - DATA ANALYTICS

SYLLABUS FRAMED ACCORDING TO THE
NATIONAL EDUCATIONAL POLICY

(NEP 2020)

ACADEMIC YEAR 2022-23 ONWARDS



PROCEEDINGS OF UG BOS MEETING OF – B.COM, B.COM (DATA ANALYTICS/INSURANCE/A&F/LSCM/TTM/TAXPROCEDURE/VOCATIONAL/BF) COURSES

Proceedings of the BOS – UG – B.Com, B.Com (Data Analytics/IAS/A&F/LSCM/TTM/Tax Procedure/Vocational/BF) courses for the academic year 2022 – 2023 meeting held on 14th October 2022, at the Department of Commerce, PK Block, Bengaluru CityUniversity, Bengaluru-560009 at 11:00 A.M. The Board has reviewed and approved the course matrix and syllabus of first four semesters of the above mentioned courses. The board authorized the chairman to make the necessary changes and get the approval for the same.

MEMBERS PRESENT:

- | | |
|--|----------|
| 1. Dr.M Muniraju, Chairman & Dean, Dept of Commerce | Chairman |
| 2. Dr. K R Jalaja, Associate Professor, Dept. of Commerce, BCU, | Member |
| 3. Dr. Sarvamangala, Associate Professor, Dept. of Commerce, BU | Member |
| 4. Dr. Nagaraj.N, Professor, Dept of Commerce, University of Mysore | Member |
| 5. Dr. Y.Muniraju, Professor in Commerce, Mangalore University | Member |
| 6. Dr.D Channappa, Chairman and Professor, Osmania University | Member |
| 7. Dr.R.Parvathi, Principal, VET first Grade College, Bangalore | Member |
| 8. Dr.D Raja Jebasingh,Vice Principal, St. Joseph's Commerce College | Member |
| 9. Dr.B.G.Bhasakara, Principal, Vivekananda Degree College | Member |
| 10. Dr.Padmaja P V, Principal, MLA Academy of Higher Learning | Member |
| 11. Dr.S N Venkatesh, Principal, RVD College | Member |
| 12. Dr.S.Harish, Principal, Vijaya Evening College | Member |

CO-OPTED MEMBERS

13. Dr. Bhavani H, Head,
Dept. of Commerce, M L A First Garde College for Women,
14. Prof. Gururaj Rao, Associate Professor, Vijaya College
15. Dr. Swaminathan, Associate Professor, GFGC, Malleswaram
16. Dr. Srihari, Associate Professor, SSMRV College, Bengaluru
17. Dr. Nagaraj C, GFGC, Yelahanka
18. Ms. Priya Srinivas, BMS College of Management

Chairman BOS

B.COM - DA – PROGRAM

SEMESTER – I

SL NO	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	SEE	CIE	Total Marks	Credits
1	Lang.1.1	Language -I	AECC	3+1+0	60	40	100	3
2	Lang.1.2	Language -II	AECC	3+1+0	60	40	100	3
3	B.Com.DA.1.1	Financial Accounting	DSC -1	3+0+2	60	40	100	4
4	B.Com.DA.1.2	Fundamentals of MS-Excel (P=Practical Exam)	DSC -2	3+0+2	60	40	100	4
5	B.Com.DA.1.3	Business Statistics - I	DSC -3	3+0+2	60	40	100	4
6	B.Com.DA.1.4	Digital Fluency/ Basics of Computer	SEC-SB	1+0+2	30	20	50	2
7	B.Com.DA.1.5	Any one of the following: a. Accounting for Everyone b. Personal Finance and Planning	OEC -1	3+0+0	60	40	100	3
8	B.Com.DA.1.6	Yoga	SEC-VB	0+0+2	-	25	25	1
9	B.Com.DA.1.7	Health & Wellness	SEC-VB	0+0+2	-	25	25	1
SUB TOTAL (A)					390	310	700	25

SEMESTER – II

SL NO	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	SEE	CIE	Total Marks	Credits
10	Lang.2.1	Language -I	AECC	3+1+0	60	40	100	3
11	Lang.2.2	Language – II	AECC	3+1+0	60	40	100	3
12	B.Com. DA.2.1	Advanced Financial Accounting	DSC -4	3+0+2	60	40	100	4
13	B.Com.DA.2.2	Business Statistics - II	DSC -5	3+0+2	60	40	100	4
14	B.Com.DA.2.3	Fundamental of Data Base Management System and SQL	DSC -6	3+0+2	60	40	100	4
15	B.Com.DA.2.4	Environmental Studies	AECC	2+0+0	30	20	50	2
16	B.Com.DA.2.5	Any one of the following: a. Investing in stock markets b. Innovation Management	OE-2	3+0+0	60	40	100	3
17	B.Com.DA.2.6	Sports	SEC-VB	0+0+2	-	25	25	1
18	B.Com.DA.2.7	NCC/NSS/R&R(S&G)/ Cultural	SEC-VB	0+0+2	-	25	25	1
SUB TOTAL (B)					390	310	700	25

**EXIT OPTION WITH CERTIFICATION –
WITH ABILITY TO SOLVE WELL DEFINED PROBLEMS**

SEMESTER – III

SL NO	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	SEE	CIE	Total Marks	Credits
19	Lang.3.1	Language -I	AECC	3+1+0	60	40	100	3
20	Lang.3.2	Language – II	AECC	3+1+0	60	40	100	3
21	B.Com. DA.3.1	Corporate Accounting	DSC– 7	3+0+2	60	40	100	4
22	B.Com.DA.3.2	Management Principles and Applications	DSC– 8	3+0+2	60	40	100	4
23	B.Com.DA.3.3	Advanced Excel	DSC– 9	3+0+2	60	40	100	4
24	B.Com.DA.3.4	Financial Education & Investment Awareness	SEC	1+0+2	30	20	50	2
25	B.Com.DA.3.5	Any one of the following: a. Advertising Skills b. Entrepreneurship Skills	OEC-3	3+0+0	60	40	100	3
26	B.Com.DA.3.6	Sports	SEC-VB	0+0+2	-	25	25	1
27	B.Com.DA.3.7	NCC/NSS/R&R(S&G)/ Cultural	SEC-VB	0+0+2	-	25	25	1
SUB TOTAL (C)					390	310	700	25

SEMESTER – IV

SL NO	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	SEE	CIE	Total Marks	Credits
28	Lang.4.1	Language -I	AECC	3+1+0	60	40	100	3
29	Lang.4.2	Language – II	AECC	3+1+0	60	40	100	3
30	B.Com.DA.4.1	Human Resource Management	DSC– 10	3+0+2	60	40	100	4
31	B.Com.DA.4.2	Principles of Marketing	DSC– 11	3+0+2	60	40	100	4
32	B.Com.DA.4.3	Data Science life cycle	DSC– 12	4+0+0	60	40	100	4
33	B.Com.DA.4.4	Constitution of India	AECC	2+0+0	30	20	50	2
34	B.Com.DA.4.5	Any one of the following: a. Banking Operations b. Principles of Event Management	OEC-4	3+0+0	60	40	100	3
35	B.Com.DA.4.6	Sports	SEC-VB	0+0+2	-	25	25	1
36	B.Com.DA.4.7	NCC/NSS/R&R(S&G)/ Cultural	SEC-VB	0+0+2	-	25	25	1
SUB TOTAL (D)					390	310	700	25

EXIT OPTION WITH DIPLOMA – ABILITY TO SOLVE BROADLY DEFINED PROBLEMS.

SEMESTER – V

SL NO	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	SEE	CIE	Total Marks	Credits
37	B.Com.DA .5.1	Financial Management	DSC-13	3+0+2	60	40	100	4
38	B.Com.DA .5.2	Income Tax -I	DSC-14	3+0+2	60	40	100	4
39	B.Com.DA .5.3	GST Law and Practice	DSC-15	3+0+2	60	40	100	4
40	B.Com.DA .5.4	Marketing Analytics	DSC -16	3+0+2	60	40	100	3
41	B.Com.DA .5.5	Introduction to R (P = Practical Exam)	VOC-1	2+0+2	60	40	100	3
42	B.Com.DA .5.6	Internship	Intern -1	0+0+2	-	50	50	2
43	B.Com.DA .5.7	Cyber Security or some other SEC	SEC	1+0+2	30	20	50	2
44	B.Com.DA .5.8	Sports	SEC– VB	0+0+2	-	25	25	1
45	B.Com.DA .5.9	NCC/NSS/R&R(S&G)/ Cultural	SEC– VB	0+0+2	-	25	25	1
SUB TOTAL (F)					330	320	650	24

SEMESTER – VI

SL NO	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	SEE	CIE	Total Marks	Credits
46	B.Com. DA.6.1	Management Accounting	DSC-17	3+0+2	60	40	100	4
47	B.Com. DA.6.2	Cost Accounting	DSC-18	3+0+2	60	40	100	4
48	B.Com. DA.6.3	Financial Analytics	DSC-19	3+0+2	60	40	100	4
49	B.Com. DA.6.4	Data Analysis using Tableau	DSC-20	3+0+2	60	40	100	3
50	B.Com. DA.6.5	Application of Python in Business Decisions	VOC-2	2+0+2	60	40	100	3
51	B.Com. DA.6.6	Internship	Intern -2	0+0+2	-	50	50	2
52	B.Com. DA.6.7	Professional Communication	SEC- SB	1+0+2	30	20	50	2
53	B.Com. DA.6.8	Sports	SEC– VB	0+0+2	-	25	25	1
54	B.Com. DA.6.9	NCC/NSS/R&R(S&G)/ Cultural	SEC– VB	0+0+2	-	25	25	1
SUB TOTAL (F)					320	320	650	24
GRAND TOTAL - DEGREE					2220	1880	4100	148

EXIT OPTION WITH BACHELOR DEGREE -ABILITY TO SOLVE COMPLEX PROBLEMS THAT ARE ILL-STRUCTURED REQUIRING MULTI-DISCIPLINARY SKILLS TO SOLVE THEM.

SEMESTER – VII

SL NO	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	SEE	CIE	Total Marks	Credits
55	B.Com.DA. 7.1	International Business	DSC-21	4+0+0	60	40	100	4
56	B.Com.DA.7. 2	Business Regulations	DSC-22	3+0+2	60	40	100	4
57	B.Com.DA.7.3	Web and Social Intelligence	DSC-23	3+0+2	60	40	100	4
58	B.Com.DA.7.4	HR Analytics	DSC-24	3+1+0	60	40	100	3
59	B.Com.DA.7.5	ERP Applications	VOC-3	2+0+2	60	40	100	3
60	B.Com.DA.7.6	Research Methodology	RM-1	3+0+0	60	40	100	3
SUB TOTAL (G)					360	240	600	21

SEMESTER – VIII

SL NO	Course Code	Title of the Course	Category of Course	Teaching Hours per Week (L+T+P)	SEE	CIE	Total Marks	Credits
61	B.Com.DA.8.1	Financial Reporting and IND AS	DSC-25	3+0+ 2	60	40	100	4
62	B.Com.DA.8.2	Cloud Computing and IOT	DSC-26	4+0+0	60	40	100	4
63	B.Com.DA.8.3	Econometrics	DSC-27	3+0+2	60	40	100	4
64	B.Com.DA.8.4	Advance SQL	VOC-4	2+0+2	60	40	100	3
65	B.Com.DA.8.5	Research Projects/Internship with Viva – voce	-	-	120	80	200	6
SUB TOTAL (H)					360	240	600	21
GRAND TOTAL OF (A+B+C+D+E+F+G+H)					2940	2360	5300	190

Award of Bachelor of Commerce Degree with Honours, (With the completion of courses equal to a minimum of 180 credits)

BACHELOR DEGREE WITH HONORS – EXPERIENCE OF WORKPLACE PROBLEM SOLVING IN THE FORM OF INTERNSHIP OR RESEARCH EXPERIENCE PREPARING FOR HIGHER EDUCATION OR ENTREPRENEURSHIP EXPERIENCE.

NOTES:

- One Hour of Lecture is equal to 1 Credit.
- One Hour of Tutorial is equal to 1 Credit (Except Languages).
- Two Hours of Practical is equal to 1 Credit

Acronyms Expanded

AECC	: Ability Enhancement Compulsory Course
DSC ©	: Discipline Specific Core (Course)
SEC-SB/VB	: Skill Enhancement Course-Skill Based/Value Based
OEC	: Open Elective Course
DSE	: Discipline Specific Elective
SEE	: Semester End Examination
CIE	: Continuous Internal Evaluation
L+T+P	: Lecture +Tutorial+Practical(s)

Note: Practical Classes may be conducted in the Business Lab or in Computer Lab or in Class room depending on the requirement. One batch of students should not exceed half (i.e., 30 or less than 30 students) of the number of students in each class/section. 2 Hours of Practical Class is equal to 1 Hour of Teaching, however, whenever it is conducted for the entire class (i.e., more than 30 students)

2 Hours of Practical Class is equal to 2 Hours of Teaching.

Name of the Program: Bachelor of Commerce (B.Com-Data Analytics)) Course Code: B.Com.DA 1.1 NAME OF THE COURSE: FINANCIAL ACCOUNTING		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, tutorials, Group discussion, Seminar, Case studies & field work etc.,		
Course Outcomes: Course Outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> a. Understand the theoretical framework of accounting as well as accounting standards. b. Demonstrate the ability to prepare financial statement of manufacturing and nonmanufacturing entities of sole proprietors. c. Workout the accounting treatments for consignment transactions & events in the books of consignor and consignee. d. Understand the accounting treatment for royalty transactions & articulate the Royalty agreements. Demonstrate various accounting treatments for dependent and independent branches		
SYLLABUS:		HOURS
Module- 1: Theoretical Framework of Accounting		08
Introduction-Meaning and Scope of Accounting- Objectives of Accounting-Importance of Accounting-Function of Accounting-Terminologies used in accounting- Users of Accounting Information-Accounting Process-Basis of Accounting: Cash basis and Accrual Basis-Branches of Accounting- Principles of Accounting-Concepts and Conventions- Accounting Standards-Indian Accounting Standards (IND AS)- Theory , Accounting equations, Problems on Accounting Equations		
Module -2: Financial Statements of Sole Proprietary Concerns		12
Introduction-Meaning of Sole Proprietor-Meaning of Financial Statements - Manufacturing and non-manufacturing Entities: Financial statements of Manufacturing Concerns -Statement of Manufacture, Statement of Trading and Profit & Loss -Balance Sheet - problems		
Module. 3: Consignment Accounts		12
Introduction – Meaning – Consignor – Consignee – Goods Invoiced at Cost Price – Goods Invoiced at Selling Price – Normal Loss – Abnormal Loss – Valuation of Stock – Stock Reserve – Journal Entries – Ledger Accounts in the books of Consignor- problems.		
Module.4: Royalty Accounts		12
Introduction-Meaning- Terms used in royalty agreement: Lessee, Lessor, Minimum Rent – Short Workings –Recoupment of Short Working–Accounting Treatment in the books of Lessee only – Journal Entries and Ledger Accounts including minimum rent account. (Sub-lease and lessor books excluded)- problems		

Module.5: Branch Accounts	12
<p>Meaning of Branch Accounts -Objectives and Advantages of Branch Accounting Types of Branches – Meaning and features of Dependent Branches, Independent Branches and Foreign Branches-Methods of maintaining books of accounts by the Head Office – Debtors System- ascertainment of Profit or Loss of Branch under Debtors System – Problems</p>	
<p>Skill DevelopmentActivities:</p> <ol style="list-style-type: none"> 1. Collect Annual Financial Statements of sole proprietary concerns and identify accounting concepts and conventions followed in the preparation of the annual financial statements. 2. Preparation of Pro-form invoice and accounts sales with imaginary figures. 3. Prepare Royalty table with imaginary figures. 4. Prepare Branch Account with imaginary figures 	
<p>Books for Reference:</p> <ol style="list-style-type: none"> 1. Robert N Anthony, David Hawkins, Kenneth A. Merchant, (2017) Accounting: Text and Cases, Mc Graw-Hill Education, 13thEdition. 2. S.Anil Kumar, V.Rajesh Kumar and B.Mariyappa – Financial Accounting, Himalaya Publishing House, New Delhi. 3. SPIyengar (2005), Advanced Accounting, Sultan Chand & Sons, Vol.1. 4. Charles T. Horngren and Donna Philbrick, (2013) Introduction to Financial Accounting, Pearson Education, 11thEdition. 5. J.R. Monga, Financial Accounting: Concepts and Applications. Mayur Paper Backs, New Delhi, 32ndEdition. 6. S.N. Maheshwari, and. S. K. Maheshwari. Financial Accounting. Vikas Publishing House, New Delhi, 6th Edition. 7. B.S. Raman (2008), Financial Accounting Vol. I & II, United Publishers & Distributors 	

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com.DA 1.2 Name of the Course: FUNDAMENTALS OF MS-EXCEL		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, Case studies, Group discussion, Seminar & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> · Fundamentals of Excel helps Students to learn how to start working with MS-EXCEL right from basics to Tables. · To understand the various templates and printing of their work. · The course aims to understand the most extensive tool used for many analysis in general and in Business Analytics in Particular, this module will equip students with hands-on skills on excel operations 		
SYLLABUS:		HOURS
Module No. 1:	Introduction	12
Basics of MS-Windows – Desktop, Icon, creating, saving, and using of different documents and applications, MS- Office: Installing, Customizing, and Using different applications and tools in MS-Office package, Basics of MS-Word, Basics of MS Power Point.		
Module No. 2:	Introduction to MS-Excel	12
Spreadsheets basics, Need for Spreadsheets, Work-Book, Work –Sheet, Parts of a MS-Excel Work-Sheet- Program area, Work area, Contents of Title-Bar, Manu-Bar, Contents of Manu Ribbons, Meaning of Cell- Cell address, Formula-Bar, Row-Numbers, Column-Letters, Quick Access to Tool-Bar, Office Button, Floating Frames, Adding Work-Sheets in Sheet Tab, Status- Bar., and other features of Excel.		
Module No. 3:	Work-Sheet and Work-Book Operation	12
Selecting Cell and Range of Cells, Merging of Cells, Entering and Saving Data in the Cell, Named Cells, Need of Naming Cells, Entering, Storing, Copying Formula, Using different Arithmetic and logical Operators in Formula, Moving Cell with contents, Copying and Pasting of Cell and Cell Content, Freezing Cells, Editing of Cell Contents, using Cell Formatting Options – Editing Cell Size (increasing Column and Row size of a cell), Text Alignment, using Border, Comments option usage in Cell, Editing and Deleting Comments, Fill, Formatting Fonts, Text Warping, Text Rotate, Using Auto-fit to Adjust Rows and Columns Using of Short-Cuts and Short-Cut Manu, Clear Contents in a Cell, Adding, Deleting and Copying Work-Sheet with in a Work-Book, Renaming a File or Work-Sheet, Inserting Multiple Work-Sheet at a time, Formatting a Work-Sheet Automatically, Sorting Textual & Numerical DATA, Sort Dates or Times, Sort by Cell Colour, Font Colour, or by icon, Sort by a custom list, Sort Rows, sort by more than column or row and other issues in sorting.		

Module No. 4:	Tables And Formatting	12
<p>Creating a Table, Changing the look of a table, Navigating in a Table, Selecting parts of a Table, Adding, Deleting New Rows / Columns, Moving a Table, Working with the Total Row, Removing Duplicate rows from a table. Sorting and Filtering a table, Converting Table into Range. Formatting tools on the Home Tab, Mini Toolbar, Fonts, Text Alignment, Wrapping text to fit a cell, Colours and Shading, Borders and Lines, Miming Styles Conditional Formatting and Reporting: Format all Cells by using a Two Colour Scale, Format all Cells by using Data Bars quick formatting, Protecting, Protect a Work-Book, Un Protect Work-Book, Protect Work-Sheet Data, Unprotect Work-Sheet data, Spelling and Grammar Check, Referencing – Relative, Absolute, Mixed Referencing, Basic Functions Viz., SUM, AVERAGE, MAX, MIN, SQRT, TODAY, COUNT, COUNTIF, CHAR, AND, OR, NOT, VALUE. ROUND.</p>		
Module No. 5:	Working with Ms-Excel	08
<p>Using Formulae to Find the roots of a Quadratic Equations, Formula of a Straight –line ($Y=MX+C$) to find the Slope of a straight line, Regression Formula, EMI-Formula, Formulae used in calculating Banker Discount, Bankers gain, True-Discount, Net-Present Value, Sum of AP and GP,) Using IF Condition, and using Multiple IF Condition in University Result Declaration.</p>		
<p>Books for Reference</p> <ol style="list-style-type: none"> 1. Rajkumar S and Nagarajan G and Naveen Kumar M, Fundamentals of MS Excel, Jayvee International Publications, Bangalore. 2. Microsoft Excel Latest Version Inside Out – Mark Doge and Craig Stinson – PHI Learning Private Limited, New Delhi – 110001. 3. Excel 2013 Bible ; John Walkenbach, Wiley 4. Financial Analysis and Modeling using Excel and VAB: Chandan Sengupta, Wiley 5. Excel Data Analysis – Modeling and Simulation: Hector Guerreor, Springe 6. Microsoft Excel 2013: Data Analysis and Business Modeling: Winston, PHI 7. Excel Functions and Formulas: Bernd Held, BPB Publications. 		

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. DA. 1.3 NAME OF THE COURSE: BUSINESS STATISTICS – 1		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, Case studies, Group discussion, Seminar & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to: 1. Understand the basic concepts of statistics. 2. Articulate and analyse the visualised data. 3. Structure the data for further evaluation. 4. Link the relevance of Index number. 5. Understands to build correlation of variables.		
SYLLABUS:		HOURS
Module No. 1: Introduction to Statistics		10
Basics of Statistics: Meaning, Definition need of statistics, Business statistics, The <i>DCOVA</i> framework for Business statistics (define, collect, organize, visualize, and analyze). Data: Data in Business environment, Sources of Data - Primary Data & Secondary data, Methods of collecting Primary Data and Secondary Data. Population and Sample, Data Formatting and Data Cleaning. Techniques of Data Collection: Census and Sampling techniques, methods of sampling.		
Module No. 2: Data Organising and Visualising		08
Formation of Frequency Distribution Table, Classification – Meaning and Types, Tabulation of Data- Parts of a Table, Types of Tables, Diagrammatic Presentation of the data – General Rules for Constructing Diagrams, Types of Diagrams, One-Dimensional - Bar Diagrams, Two – Dimensional Diagrams – Pie Diagram.		
Module No. 3: Descriptive Statistics		12
Measures of Central Tendency: Calculation of Mean, Median, Quartiles, Mode in Individual, Discrete and Continuous series. Geometric Mean in Individual series (Problems) Measures of Dispersion: Mean Deviation, Quartile Deviation, Standard Deviation, Coefficient of Variation -Problems. Shapes: Skewness, Tests of Skewness, Measures of Skewness - Karl Pearson's Coefficient of Skewness and Bowley's Coefficient of Skewness - problems.		
Module No. 4: Probability		14
Introduction to probability: Meaning of Probability; Meaning of Terminologies - Sample space, Experiment, Deterministic experiment, Random experiment, Trial, Event- Null event, Simple event, Compound event, Sure event, Equally likely events, Mutually exclusive events, independent, dependent events and conditional		

<p>probability. Complement of an event, Union and intersection of events; Outcomes - Meaning of Favorable and Exhaustive outcomes.</p> <p>Meaning of Classical and Empirical/statistical methods of assigning probabilities. Classical/ Mathematical, Empirical/Statistical, and axiomatic definitions of probability. Statement of addition theorem of probability (non-mutually and mutually exclusive events) Problems.</p> <p>Note: Interactive Graphics for Probability can be sourced from <u>Seeing Theory</u></p>	
Module No. 5: Correlation Analysis	10
<p>Correlation- Definition, Types-(Simple, Multiple, Partial. Causation, Spurious, positive, negative, (degrees of correlation). Significance of study of correlation analysis.</p> <p>Methods of Study Correlation- scatter diagram, Karl Pearson's coefficient of correlation for ungrouped and grouped data. Properties of coefficient of correlation, Probable error (Problems-ungrouped and grouped data).</p>	
<p>Books for Reference:</p> <ol style="list-style-type: none"> 1. Berenson: Basic of Business Statistics Pearsons Publication. 2. Evas: Statistics, Data Analysis and Decision modelling, Pearsons Publication. 3. S.P. Gupta and M.P. Gupta: Business Statistics, Sultan Chand & Sons Educational Publishers. 4. N. D Vohra: BUSINESS STATISTICS: Text and Problems - With Introduction to Business Analytics, McGrew Hill Publication. 5. Dr. B N Gupta: Statistics, Sahitya Bhavan Agra <p>Skill Development: MS Excel sessions to be conducted for 2nd, 3rd and 5th Modules.</p>	

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. 1.5 a.(Open Elective Course) NAME OF THE COURSE: ACCOUNTING FOR EVERYONE		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
3 CREDITS	3 HOURS	42 HOURS
Pedagogy: Classroom lectures, tutorials, Group discussion, Seminar, Case studies & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> 1. Analyse various terms used in accounting. 2. Understand the procedure for recording the transaction. 3. Learn posting the journal entry to ledger 4. Learn to prepare ledger accounts and cash books. 5. Learn to prepare final accounts 		
SYLLABUS:		HOURS
Module 1: Introduction to Accounting		08 Hours
Accounting: Meaning, Importance and objectives of Accounting, Concepts and Convention of Accounting. Accounting Information: Meaning, Users, Sources of accounting information. Some Basic Terms –Transaction, Account, Asset, Liability, Capital, Expenditure, Income, Revenue, Profit, Loss, Concept of revenue and Capital; Debit, Credit, Accounting Year, Financial Year. Accounting Equations – Simple Problems on Accounting Equation.		
Module 2: Recording of Transactions		12 Hours
Features of recordable transactions and events, Recording of Transactions; Types of Accounts - Personal account, Real Account and Nominal Account ; Golden Rules of Accounting-Rules for Debit and Credit; Double Entry System, Journalizing transactions (Simple Problems on Journal Entries of Sole Proprietorship Concern)		
Module 3: Preparation of Ledger Accounts and Cash Book		10 Hours
Ledger – Meaning of Ledger, Format of Ledger Account, Preparation of Ledger Accounts (Simple Problems on Journalising the transactions and posting in Ledger Accounts), Cash Book -Meaning of Cash Book, Posting of transactions in cash book. (Simple Problems on Single and Triple Columnar Cash Book)		
Module 4: Preparation of Final Accounts		08 Hours
Preparation of Trial Balance and Final Accounts. (Simple problems on Trial Balance, Trading, Profit and Loss Accounts and Balance Sheet with T-format).		

Skill Development Activities:

1. Write an accounting equation using Imaginary figures.
2. Prepare final accounts collecting necessary data from small business firms.
3. Prepare a Trial Balance with Imaginary Figures.
4. Prepare a Triple Columnar Cash Book with imaginary transactions.
5. Pass any five journal entries with imaginary transactions for Sole proprietary concern.

Books for Reference:

1. Hatfield, L. (2019). Accounting Basics. Amazon Digital Services LLC.
2. Horngren, C. T., Sundem, G. L., Elliott, J. A., & Philbrick, D. (2013). Introduction to Financial Accounting. London: Pearson Education.
3. Siddiqui, S. A. (2008). Bookkeeping & Accountancy. New Delhi: Laxmi Publications Pvt. Ltd.
4. Sehgal, D. (2014). Financial Accounting. New Delhi: Vikas Publishing House Pvt. Ltd.
5. Tulsian, P. C. (2007). Financial Accounting. New Delhi: Tata McGraw Hill Publishing Co. Ltd.
6. Mukharji, A., & Hanif, M. (2015). Financial Accounting. New Delhi: Tata McGraw Hill Publishing Co. Ltd.
7. Maheshwari, S. N., Maheshwari, S. K., & Maheshwari, S. K. (2018). Financial Accounting. New Delhi: Vikas Publishing House Pvt. Ltd.
8. Khan, M.Y. and Jain, P.K. Management Accounting. McGraw Hill Education.
9. Arora, M.N. Management Accounting, Vikas Publishing House, New Delhi

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. 1.5 b. (Open Elective Course) Name of the Course: PERSONAL FINANCE AND PLANNING		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
3 CREDITS	3 HOURS	42 HOURS
Pedagogy: Classroom lectures, tutorials, Group discussion, Seminar, Case studies & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> 1. Explain the meaning and appreciate the relevance of Financial Planning. 2. Familiarize with regard to the concept of Investment Planning and its methods. 3. Examine the scope and ways of Personal Tax Planning. 4. Analyze Insurance Planning and its relevance. 5. Develop an insight into retirement planning and its relevance. 		
SYLLABUS:		HOURS
Module 1: Introduction to Financial Planning		08 Hours
Financial goals, steps in financial planning, time value of money, personal loans, education loan, car loan & home loan schemes. Introduction to savings, benefits of savings, management of spending & financial discipline.		
Module 2: Investment Planning		08 Hours
Meaning, process and objectives of investment, Concept and measurement of return & risk, Types of return: Income and capital appreciation Different investment avenues: Corporate Securities, Bank deposits, Company deposits, Post Office Savings Schemes, Government Securities, Insurance Schemes, Provident Fund, Pension loans, Mutual fund, Commodities, Foreign currency, Real estate, Paintings and Antiques, Gold and Bullion, Chits and Nidhi, Exchange Traded Funds (ETF).		
Module 3: Personal Tax Planning		10 Hours
Tax Structure in India for personal taxation, Scope of Personal tax planning, Exemptions and deductions available to individuals (U/s 80C, 80CCC, 80CCD, 80D, 80DD, 80TTA, 80 U) from Gross Total Income. Tax avoidance versus tax evasion.		

Module 4: Retirement Planning	07 Hours
<p>Retirement Planning Goals, Process of retirement planning, Pension plans available in India, New Pension Scheme, Provident Fund: Employee Provident Fund (EPF) and Public Provident Fund (PPF). Deductions available under the Income Tax Act, 1961 for retirement plans.(Theory only)</p>	
<p>Skill Development Activities:</p> <ol style="list-style-type: none"> 1. Design a portfolio using any five assets with imaginary figures. 2. Identify different types / classes of mutual funds available in India 3. List out any six insurance schemes in India. 4. List out the deductions available under the Income Tax Act, 1961 for retirement plans. 	
<p>Books for Reference:</p> <ol style="list-style-type: none"> 1. Indian Institute of Banking & Finance. (2017). Introduction to Financial Planning. New Delhi: Taxmann Publication. 2. Pandit, A. (2014). The Only Financial Planning Book that You Will Ever Need. Mumbai: Network 18 Publications Ltd. 3. Sinha, M. (2008). Financial Planning: A Ready Reckoner. New York: McGraw Hill Education. Halan, M. (2018). Let's Talk Money: You've Worked Hard for It, Now Make It Work for You. New York: HarperCollins Publishers. 4. Tripathi, V. (2017). Fundamentals of Investment. New Delhi: Taxmann Publication. 	

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. DA. 2.1 Name of the Course: ADVANCED FINANCIAL ACCOUNTING		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, Case studies, Tutorial classes, Group discussion, Seminar & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to a) Understand & compute the amount of claims for loss of stock & loss of Profit. b) Learn various methods of accounting for hire purchase transactions. c) Deal with the inter-departmental transfers and their accounting treatment. d) Prepare financial statements from incomplete records. e) Outline the emerging trends in the field of accounting		
SYLLABUS:		HOURS
Module-1: Insurance Claims for Loss of Stock		12
Meaning, Need and Advantages of Fire Insurance-Special terminologies in Fire Insurance Claims – Insurer, Insured, Premium, Salvage, Insurance Policy, Sum Assured, Under Insurance, over insurance Average Clause, Claim. Problems on Ascertainment of Fire Insurance Claim including problems on abnormal line of goods- Problems		
Module - 2: Hire Purchase Accounting		12
Meaning of Hire Purchase and Installment Purchase System- difference between Hire Purchase and Installment Purchase – Important Definitions – Hire Purchase Agreement – Hire Purchase Price – Cash Price – Hire Purchase Charges – Calculation of Interest – Calculation of Cash Price – Journal Entries and Ledger Accounts in the books of Hire Purchaser only. (Asset Accrual Method only)- Problems		
Module -3: Departmental Accounts		12
Meaning and Features of Departmental Undertaking-Examples of Department Specific Expenses and Common Expenses -Need and Bases of Apportionment of Common Expenses-Preparation of Statement of Trading and Profit and Loss in Columnar form, Statement of General Profit and Loss and Balance Sheet – Simple problems involving Inter Departmental Transfers at Cost Price (vertical form)- Problems		
Module-4: Conversion of Single-Entry System into Double Entry System		12
Single entry system- Meaning – Features – Merits – Demerits – Types. Conversion into Double Entry system – Need for Conversion – Preparation of Statement of Affairs – Cash book – Memorandum Trading Account – Total Debtors Account – Total Creditors Account – Bills Receivable Account – Bills Payable Account – Statement of Trading and Profit & Loss and Balance Sheet- Problems		

Module -5: Emerging Trends in Accounting	08
<p>Digital transformation of Accounting – Big Data Analytics in Accounting- Cloud Computing in accounting- Green Accounting- Human Resource Accounting, Inflation Accounting, Database Accounting (Meaning and Features only)</p>	
<p>Skill Development Activities:</p> <ol style="list-style-type: none"> 1. Identify the procedure & documentations involved in the insurance claims. 2. Prepare the purchase table with imaginary figures. 3. Identify the common expenditures of a departmental undertaking 4. Identify latest innovations and developments in the field of accounting. 5. Prepare a Memorandum Trading Account with imaginary figures. 6. Identify the latest Accounting trends. 	
<p>Books for Reference:</p> <ol style="list-style-type: none"> 1. S.N. Maheshwari, and. S. K. Maheshwari. Financial Accounting. Vikas Publishing House, New Delhi, 6thEdition. 2. B.S. Raman (2008), Financial Accounting Vol. I & II, United Publishers & Distributors 3. S.Anil Kumar, V.Rajesh Kumar and B.Mariyappa – Financial Accounting, Himalaya Publishing House, New Delhi 4. SP Iyengar (2005), Advanced Accounting, Sultan Chand & Sons, Vol.1. 5. Robert N Anthony, David Hawkins, Kenneth A. Merchant, (2017) Accounting: Text and Cases, McGraw-Hill Education, 13thEdition. 6. Charles T. Horngren and Donna Philbrick, (2013) Introduction to Financial Accounting, Pearson Education, 11thEdition. 7. J.R. Monga, Financial Accounting: Concepts and Applications. Mayur Paper Backs, New Delhi, 32ndEdition. 	

Name of the Program: Bachelor of Commerce (Data Analytics)

Course Code: B.Com.DA.2.2

NAME OF THE COURSE: BUSINESS STATISTICS – 2

COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, Case studies, Tutorial classes, Group discussion, Seminar & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to: <ol style="list-style-type: none">1. Analyze simple linear regression and interpreting the results2. Understand and demonstrate time series forecasting techniques3. Execute Probability and Theoretical distribution theories.4. Construct hypothesis and summarize the results5. Formulate ANOVA model and interpret the results.		
SYLLABUS:		HOURS
Module No. 1: Linear Regression		10
Regression- Definition, regression lines, regression equations of x on y and y on x(problems). Properties of regression coefficients. Introduction to Multiple Linear regression (Concepts Only)		
Module No. 2: Time Series Analysis		10
Meaning and Components of Time Series, Uses of time series analysis. Measurement of the trend by Graphical, Semi average, moving averages method (Period of moving average being 3, 4 or 5) and method of least squares -Problems on fitting a linear trend- normal equations, obtaining trend values, estimating future trends, Plotting actual and trend values (Graphically). Fitting a second degree (Quadratic) and exponential trends- Normal equations and obtaining the trend equation, Forecasting, and estimation.		
Module No. 3: Normal Distribution		14
Normal distribution definition of Normal distribution, properties, problems on P.D.F and properties. Definition of SNV, standard normal distribution through P.D.F. Finding probabilities and expected numbers when mean and variance are given. Finding the probabilities within one, two and three (sigma) limits.		
Module No. 4: Hypothesis Testing and Statistical Inference		12
Basic Concept of Hypothesis Testing – Hypothesis Formulation, Significance Level, Decision Rules. Type I and Type II error. One Sample Hypothesis Testing – One Sample Test for Means, One Sample Test for Proportions, One Sample Test for Variance using p-values. Two sample Hypothesis Test – Two sample Test for Means, Two sample Test for Means with Paired samples, Two sample Test for Proportion, Two sample Test and Confidence Intervals. Test For Equality of Variance. (t-test, z-test, Chi-square test problems to be solved)		

Module No. 5: Analysis of Variance	10
<p>Introduction to One way ANOVA, Partitioning the sum of squares, The ANOVA assumptions, Applying One Way ANOVA. Randomized complete Block ANOVA, Fisher's least significant difference test. Two Factor ANOVA: Two Factor ANOVA replications.</p>	
<p>Books for Reference:</p> <ol style="list-style-type: none"> 1. Groebner, David F.; Shannon, Patrick W.; Fry, Phillip C, Business Statistics, Global Edition, Pearsons Publication. 2. Berenson: Basic of Business Statistics Pearsons Publication. 3. Evas: Statistics, Data Analysis and Decision modelling, Pearsons Publication. 4. S.P. Gupta and M.P. Gupta: Business Statistics, Sultan Chand & Sons Educational Publishers. 5. N. D Vohra: BUSINESS STATISTICS: Text and Problems - With Introduction to Business Analytics, McGrew Hill Publication. 6. Dr. B N Gupta: Statistics, Sahitya Bhavan Agra 7. David Freedman, Statistics, Viva Books. <p>Skill Development: MS Excel sessions to be conducted for 1st, 2nd, 4th and 5th Modules.</p>	

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com.DA. - 2.3 Name of the Course: FUNDAMENTALS OF DATABASE MANAGEMENT SYSTEMS AND SQL		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, Case studies, Group discussion, Seminar & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> 1. Understand Database Management Systems and the significance of DDL, DML in SQL Portion of RDBMS. Knowledge of Excel and SQL would equip students with hands-on skills on DBMS operations with SQL. 2. Understand DBMS structure and file management system in DBMS 3. Understand the Concept of Operation and Management. 4. Understand the application of SQL. 		
SYLLABUS:		HOURS
Module No. 1: Introduction to Database Management Systems		10
Meaning and Definition of Database, Objectives of Database, Features of Database, Conceptual Data modeling – File Organization – Data Structure – Data models: HDBMS, NDBMS, RDBMS, OODBMS, Desktop and Server-level Database, Recent Trends in Database.		
Module No. 2: Database Design		08
Relational Data Model – Relational Algebra – ER Diagrams – Data Dictionary – Normalisation – Boyce Codd Normal Forms – Integrity – Relational Database Languages – Database Administration – File Structures and Indexing. Object oriented concepts – Structure – Models and Databases – Object life cycle modeling – Objects, Classes, and Patterns – Object interaction modeling – Object Oriented Design – UML		
Module No. 3: Operation and Management		10
Client / Server and Databases – Data Warehousing – Query Processing – Concurrency Management – Heterogeneous and Homogenous Systems – Distributed Databases – Controls – Atomicity, Recovery – Security, Back-up and Recovery, Distributed Databases: Structure of Distributed Database; Trade-offs in Distributing the Database, Advantages of Data Distribution, Disadvantages of Data Distribution; Design of Distributed Databases, Data Replication, Data Fragmentation		
Module No. 4: SQL Structured Query Language.		12
Relational Query Languages, the SQL Query Language, DDL – CREATE Table, ALTER Table, DROP Table, CREATE Index, DROP Index etc., DML – SELECT, UPDATE, DELETE, INSERT INTO etc., DATA – TYPE, Constraints on Attributes – Referential Integrity Constraint, Arithmetic and Relational Operators		
Module No. 5: Lab Sessions		16

Practical Problems and Lab-Work on SQL.

Books for References:

1. Gary W.Hansen and James V.Hansen, “Database Management and Design” Prentice Hall
2. C.S.V.Murthy – Data Base Management Systems-HPH
3. C.Laudon. management information-systems, 6th edition, published in the year 2000. p. 6.
4. DR. Milind M. Oka. Management information systems. Everest Publishing House,p.3
5. Gordon. B. Davis & M. H. Olson. Management Information Systems.. Conceptual Foundations, structure and development. Second Edition. P. 6
6. Jacek Błażewicz, et al., “Handbook on parallel and distributed processing”, Springer Science & Business Media, 2013.
7. O’Brien James — A Management Information Systems, Tata Mc Graw Hill, New Delhi.
8. Information Technology Control and Audit, Third Edition, Sandra Senft, Frederick Gallegos, CR Press

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. 2.5 a (Open Elective Course) Name of the Course: INVESTING IN STOCK MARKETS		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
3 CREDITS	3 HOURS	42 HOURS
Pedagogy: Classroom lectures, Case studies, Group discussion, Seminar & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> 1. Explain the basics of investing in the stock market. 2. Differentiate between Primary and Secondary Market. 3. Understand different methods of issue of shares. 4. Understand the different methods of pricing the issue of shares. 5. Understand Demat A/c and Depository Participants managing Demat A/c. 		
SYLLABUS:		HOURS
Module 1: Indian Stock Market		08 Hours
Introduction to Indian Stock Markets, History, Organization, Governing body, Functions of stock Exchange, Players in Stock Market, SEBI – Objectives, Role and Powers.		
Module 2: Investing in Primary and Secondary Markets		12 Hours
Meaning, Objectives, Scope, and Functions of Primary and Secondary Markets- Difference between Primary and Secondary Market, Methods of issue of shares in primary market, methods of pricing the issue of shares in primary market, Listing of shares.		
Module 3: Trading in Stock Market		14 Hours
Broker- Meaning, Role and Responsibilities, Brokerage charges. Trading & Settlement- Procedure for Trading – Buying Order, Sell Order, Long and Short Positions, Bid and Ask Price, Volume, Stop Loss; Types of Trading – Online Trading and Offline Trading.		
Module 4: Depository participants in India		08 Hours
Demat Account- Meaning and Need for Demat Account, Steps in Opening Demat Account and related documentations. Depositories in India: National Securities Depository Ltd. (NSDL)- Features and Functions, Central Depository Services Ltd. (CDSL)- Features and Functions.		

Skill Development Activities: <ol style="list-style-type: none"> 1. List out the recent IPO in Indian Primary Market. 2. List out the leading share brokers in India.
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3. Procedure for Opening the Demat A/c.
4. List out the functions of CDSL and NSDL.

Books for Reference:

1. Chandra, P. (2017). Investment Analysis and Portfolio Management. New Delhi: Tata McGraw Hill Education.
2. Kevin, S. (2015). Security Analysis and Portfolio Management. Delhi: PHI Learning. Ranganatham,
3. M., & Madhumathi, R. (2012). Security Analysis and Portfolio Management. Uttar Pradesh: Pearson (India) Education.
4. Pandian, P. (2012). Security Analysis and Portfolio Management. New Delhi: Vikas Publishing House.

Name of the Program: Bachelor of Commerce (Data Analytics.) Course Code: B.Com. 2.5 b (Open Elective Course) Name of the Course: INNOVATION MANAGEMENT		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
3 CREDITS	3 HOURS	42 HOURS
Pedagogy: Classroom lectures, Case studies, Group discussion, Seminar & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to		
1 Define types and patterns of innovation. 2 Search of the sources of innovation and ideas generating. 3 Define innovation-related strategic decisions within organizations. 4 Managing the processes of new product development. 5 Developing the paths of cooperation for innovation-based projects.		
SYLLABUS:		HOURS
Module 1: Introduction to Innovation Management		12 Hours
Innovation: Concept of innovation, characteristics, importance, principles of innovation, process of innovation, factors influencing innovation, determinants of innovation (Internal and external- technological, social, economic, politico-legal); Innovation Management: Concept, scope, characteristics of good innovation management, significance of innovation management		
Module 2: Managerial aspects of innovation:		12 Hours
Organisational mechanism for stimulating innovation: separate units for innovation activity, project-based organisations, new venture division (merits and demerits of each); Traits of innovative organisations, current trends- Virtual organisations, boundaryless organisations, learning organisations; Managing innovation function: Planning, making resource allocation, organising staffing, leading and controlling for innovation		
Module 3: Areas of innovation		10 Hours
Product innovation: concept, Types (continuous and discontinuous), product innovation methods, Disruptive innovation packaging and positioning innovation Process innovation: concept, characteristics, Types of process innovations, Process improvement methods-5W2H, Work simplification, KAIZEN, Six Sigma, BPR (Business Process reengineering), benchmarking- TQM, Business Process reengineering (meanings only).		
Module 4: Legal aspects of innovation		08 Hours
Safeguarding Innovation, Concept of IPR, Patent, Trademark, Industrial design, Copyright, trade secrets; Indian Patents and Design Act 1991- Concept, features of the act, inventions that cannot be patented, procedure to apply for patents.		

Skill Development Activities:

1. Application of the knowledge on innovation and innovation dynamics to real time cases.
2. Identify the traits of Innovative organisations.
3. ~~Discuss some of the disruptive innovative practices impacting small businesses.~~
4. List out the steps involved in obtaining patent in India.

Books for Reference:

1. Krishnamacharyulu C S G & R Lalitha “Innovation management”, , HPH Pvt. Ltd.
2. James A Christiansen “Competitive Innovation Management”- Macmillan Business, 2000
3. Paul Trott, “Innovation Management & New product development”, , Pitman 2000
4. S S George,” Managing innovation in the new millennium: The ICFAI Press
5. Tidd J Bessant J , “ managing Innovation”, 3rd edition, Wiley, Chichester, 20009.
6. Nagarajan & Raj Kumar S ;(2021) Innovation Management; JayveeInternational Publications; Ist Edition,
7. Phillips, J. J., & Phillips, P. P. (2018). Using Design-Thinking in YourInnovation Projects. Journal for Quality & Participation, 41(3), 12–15.
8. Culture, Innovation, and Growth Dynamics by Elias G. Carayannis; AliPirzadeh; DenisaPopescu
9. Schoemaker, P. J. H., Heaton, S., & Teece, D. (2018). Innovation, DynamicCapabilities, and Leadership. California Management Review, 61(1), 15–42.
10. The Oxford handbook of group creativity and innovation. (2019). OxfordUniversity Press.

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. DA 3.1 Name of the Course: CORPORATE ACCOUNTING		
Course Credits	No. of Hours per Week	Total No. of Teaching Hours
4 Credits	3+2 Hrs.	56 Hrs.
Pedagogy: Classroom lectures, Case studies, Tutorial Classes, Group discussion, Seminar & Field Work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> Understand the treatment of underwriting of corporate Securities. Comprehend the computation of profit prior to incorporation. Know the valuation of Goodwill. Know the valuation corporate Securities. Prepare the financial statements of companies as per the Companies Act 2013. 		
Syllabus:		Hours
Module No. 1: Underwriting of Corporate Securities		12
Introduction - Meaning of Underwriting – SEBI regulations regarding underwriting; Underwriting Commission- Types of underwriting – Firm Underwriting, Open Underwriting - Marked and Unmarked Applications –Determination of Liability in respect of underwriting contract – when fully underwritten and partially underwritten – with and without firm underwriting problem relating to Underwriting of Shares and Debentures of Companies only.		
Module No. 2: Profit Prior to Incorporation		10
Introduction - Meaning – calculation of sales ratio – time ratio – weighted ratio – treatment of capital and revenue expenditure – Ascertainment of pre-incorporation and post-incorporation profits by preparing statement of Profit and Loss (Vertical Format) as per schedule III of Companies Act, 2013.		
Module No.3 Valuation of Goodwill		10
Introduction - Valuation of Goodwill –factors influencing goodwill, circumstances of valuation of goodwill- Methods of Valuation of Goodwill: Average Profit Method, Capitalization of average Profit Method, Super Profit Method, Capitalization of Super Profit Method, and Annuity Method-Problems (Based on both Simple and Weighted Average)		
Module No. 4: Valuation of Corporate Securities		10
Introduction - Meaning – Need for Valuation – Factors Affecting Valuation – Methods of Valuation: Intrinsic Value Method, Yield Method, Earning Per Share Method, Fair Value of shares. Valuation of Preference Shares – Valuation of Debentures		
Module 5: Financial Statements of Companies		14
Statutory Provisions regarding preparation of Financial Statements of Companies as per schedule III of Companies Act 2013 and IND AS-1 – Treatment of Special Items – Tax deducted at source – Advance payment of Tax – Provision for Tax – Depreciation – Interest on debentures – Dividends – Rules regarding payment of dividends – Transfer to Reserves – Preparation of Statement of profit and loss and Balance Sheet.		

Skill Development Activities:

1. Name the list of Indian companies which have issued IPO / FPO in recent times.
2. Determine Underwriters' Liability in case of an IPO, with imaginary figures.
3. Prepare the format of 'Statement of Profit and Loss' and "Balance Sheet' with imaginary figures.
4. Prepare Balance Sheet with imaginary figures.
5. Calculation of intrinsic value of shares under Net Asset Method.

Reference Books:

1. J.R. Monga, Fundamentals of Corporate Accounting. Mayur Paper Backs, New Delhi.
2. M.C. Shukla, T.S. Grewal, and S.C. Gupta. Advanced Accounts. Vol.-II. S. Chand & Co., New Delhi.
3. S.N. Maheshwari and S. K. Maheshwari. Corporate Accounting. Vikas Publishing House, New Delhi.
4. Ashok Sehgal, Fundamentals of Corporate Accounting. Taxman Publication, New Delhi.
5. V.K. Goyal and Ruchi Goyal, Corporate Accounting. PHI Learning.
6. Jain, S.P. and K.L. Narang. Corporate Accounting. Kalyani Publishers, New Delhi.
7. Bhushan Kumar Goyal, Fundamentals of Corporate Accounting, International Book House
8. P. C. Tulsian and Bharat Tulsian, Corporate Accounting, S.Chand
9. Amitabha Mukherjee, Mohammed Hanif, Corporate Accounting, McGraw Hill Education
10. Arulanandam & Raman ; Corporate Accounting –II
11. Madegowda J – Advanced corporate accounting, HPH
12. Soundarajan. A & K. Venkataramana, Corporate Accounting, VBH.
13. S. P. Jain and K. L. Narang – Corporate Accounting
14. S. Bhat- Corporate Accounting.
15. S P Iyengar, Advanced Accountancy, Sultan Chand
16. R L Gupta, Advanced Accountancy.
17. Anil Kumar .S, Rajesh Kumar.V and Mariyappa .B, Corporate Accounting, HPH.

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. DA 3.2 Name of the Course: MANAGEMENT PRINCIPLES AND APPLICATIONS		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, tutorials, Group discussion, Seminar, Case studies & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> a) Bring out the relevance of F W Taylor's view on management in today's knowledge era. b) Design strategic plans for various organisations for the attainment of organisational goals. c) Differentiate between the different types of organisational structures and authority and identify the best one for an MNC. d) Compare the different types of leadership styles. e) Identify a few control techniques for better productivity of an organisation. 		
SYLLABUS:		HOURS
Module 1: Introduction to Management		12
Introduction-Meaning and importance of Management - Functions of Management -Role of Managers - Management Thoughts of: F W Taylor, Peter F Drucker and Henry Fayol (only). Fourteen principles of Management.		
Module 2: Planning		08
Planning -Meaning -Nature-Purpose-Types of plans-Planning process- Limitations of Planning; Decision-making -Meaning - Importance - Decision making Process; SWOC Analysis.		
Module 3: Organizing		14
Meaning-Process of Organizing, Principles of Organizing; Authority - Types of authority, Centralization and Decentralization of Authority - Meaning, Advantages and Disadvantages; Span of Management; Delegation of authority (meaning only); Types of Organisational Structures – Traditional Forms -Line, Line and staff and functional, committee Matrix organization structure (concepts only), Modern forms - Bureaucratic, horizontal, Network Organisations, Virtual Organisations, free form organisations (concepts only)		
Module 4: Staffing Leading		14
Staffing -Meaning - Staffing Process (Recruitment and Selection Process only). Motivation: Meaning and Importance of Motivation, Extrinsic and intrinsic motivation-Motivation; Theories of motivation: Maslow's Need Hierarchy Theory, Herzberg's Two-factor Theory; Leadership: Meaning- Importance -Styles of Leadership-Autocratic, Democratic, Benevolent, Free Reign, Transactional leadership, Transformational Leadership, Transforming Leadership (concepts only); Communication: Meaning		

and types -Oral and written communication - Formal and informal communication -Barriers to communication- Measures to overcome barriers to communication.

Module 5: Coordination and Controlling

08

Coordination: Meaning- Importance-Principles of Coordination.

Control: Meaning- Process- Limitations - Principles of Effective Control- Techniques of control – PERT/CPM (Only concepts), Emerging issues in Management; **(Theory Only)**

Skill Development Activities:

1. Collect the photographs and biodata of any three leading contributors of management thoughts.
2. List out the different plans at the strategic, tactical and operational levels of an organisation.
3. Draw a organisational chart showing the flow of authority and responsibility followed in any organization.
4. Analyse the different leadership styles of any five companies from different sectors.
5. Identify the controlling mechanism used in a manufacturing firm.

Reference Books:

1. Harold Koontz and Heinz Weihrich (2017), Essentials of Management: An International and Leadership Perspective, McGraw Hill Education, 10th Edition.
2. Stephen P Robbins and Madhushree Nanda Agrawal (2009), Fundamentals of Management: Essential Concepts and Applications, Pearson Education, 6th Edition.
3. James H. Donnelly, (1990) Fundamentals of Management, Pearson Education, 7th Edition.
4. B.P. Singh and A.K.Singh (2002), Essentials of Management, Excel Books
5. P C Tripathi & P N Reddy (2005), Principles of Management, TMH Publications, 3rd Edition.
6. Koontz Harold (2004), Essentials of Management, Tata McGraw Hill.
7. Rajkumar.S and Nagarajan. G (2021) Management Principles and Applications, Jayvee International Publications, Bangalore

Name of the Program: Bachelor of Commerce (Data Analytics)
Course Code: B.Com. DA 3.3
Name of the Course: ADVANCED EXCEL

COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS

Pedagogy: Classroom lectures, Case studies, Group discussion, Seminar & fieldwork etc.,

Course Outcomes: On successful completion of the course, the students will be able to

1. Work on different syntax for Business Decisions.
2. Understand the various worksheets and their operations.
3. Understand the formatting of tables.
4. Understand the use of macros and VBA.

SYLLABUS:	HOURS
Module No. 1: Formulas (Formulae) And Macros Formulas	10
Entering Formula and copying formula, use of arithmetic: Ratios & Proportions, Discount, Simple Interest, Compound Interest, Annuity, etc., algebraic, trigonometric and statistical functions in excel, use of different forms IF condition, NESTED IF condition etc., and Use of "\$" symbol in copying formula, Macro's – definition and use, record a macro, assign a macro, run a macro, store a macro, introduction to VBA program, entering formula in macro.	
Module No. 2: Working with Functions in Formula Menu of MS-Excel - 1	14
Financial Functions: Future Value (FV), FVCHEDULE, Present Value (PV), Net Present Value (NPV), XNPV, PMT, PPMT, Internal Rate of Return (IRR), Modified Internal Rate of Return (MIRR), XIRR, NPER, RATE, EFFECT, NOMINAL DB, SYD, SLD, : Logical Functions: AND, FALSE, IF, IFERROR, NOT, OR, TRUE. Text Functions, Date and Time Functions, Lookup Functions: Vlookup and Hlookup, transpose.	
Module No. 3: Work-Sheet and Work- Operation	14
<p>Mathematical Functions: ROUND, COUNT, COUNIF, MIN, MAX, ROUND, INT, SQRT,</p> <p>Statistical Functions -Descriptive statistics- AVERAGE -MEAN, MEDIAN, MOD, STDEV, VAR, RSQ, DEVSQ, COVAR.</p> <p>Inferential Statistics - CHISQ.TEST, FTEST, TTEST, ZTEST</p> <p>Formula Auditing: Trace Precedents, Trace Dependents Show Formula, Error Checking, using data menu in data analysis: Get external data: Getting data from– from web, from text, from other sources, sorting and filtering of data, Data tools: Remove Duplicate data, data validation, group and ungroup data, finding sub-totals, Data consolidation, What-if-Analysis- Goal Seek, Scenario Manager, Tables.</p>	
Module No. 4: Tables and Formatting	12

Pivot – tale: Generating pivot-table, and generating pivot charts, inserting pictures, clipart shapes, smart arts, Using Chart wizard: Generating various types pie-charts, column, bar and area diagram in representing data, using graph in data analysis using excel, Generating Histogram, Frequency Curve and Polygon, Lorenz Curve, Time series graphs, Inserting bit map objects, word Art, Create a link to a web-page, use of view menu in excel. Dealing numbers – Currency, Accounting, Numbers, Dates, - short and long data, time, Percentage, Fractions and scientific expressions

Module No. 5: Use of Macro and VBA in MS-Excel

06

Use of Macros: Use macro, record macro, use relative references, Create a basic calculator with VBA in Excel. Write some code in VBA (Visual Basic for Application) to manipulate records in Excel spreadsheet and work with VBA user form to build graphic user interface application, write some code in VBA (Visual Basic for Application) to manipulate records in Excel spreadsheet and work with VBA user form to build graphic user interface application.

Books for Reference:

1. Microsoft Excel Latest Version Inside Out – Mark Doge and Craig Stinson – PHI Learning Private Limited, New Delhi – 110001.
2. Excel 2013 Bible ; John Walkenbach, Wiley
3. Financial Analysis and Modeling using Excel and VAB: Chandan Sengupta, Wiley
4. Excel Data Analysis – Modeling and Simulation: Hector Guerreor, Springer
5. Microsoft Excel 2013: Data Analysis and Business Modeling: Winston, PHI
6. Excel Functions and Formulas: Bernd Held, BPB Publications.

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. DA 3.5 (OEC) Name of the Course: ADVERTISING SKILLS		
Course Credits	No. of Hours per Week	Total No. of Teaching Hours
3 Credits	3 Hrs	42 Hrs
Pedagogy: Classrooms lecture, Case studies, Group discussion & Seminar etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> a. Familiarize with advertising concepts. b. Able identify effective media choice for advertising. c. Develop ads for different media. d. Measure the advertising effectiveness. e. Analyse the role of advertising agency. 		
Syllabus:		Hours
Module No. 1: Introduction		12
Communication Process; Advertising as a tool of communication; Meaning, nature and importance of advertising; Types of advertising; Advertising objectives. Audience analysis; Setting of advertising budget: Determinants of advertising.		
Module No. 2: Media Decisions		12
Major media types and their characteristics; Internet as an advertising media- merits and demerits; Factors influencing media choice; media selection, media scheduling, Advertising through the Internet-media devices.		
Module No. 3: Message Development		08
Advertising appeals, Advertising copy and elements, Essential of Message Development; Preparing ads for different Media- Video Advertising: Television & YouTube, Audio Channels: Radio & Podcast Advertising, Newspapers, Print & Digital Publications (Magazines), Out-Of-Home Advertising, Social Media.		
Module No. 4: Advertising Agency		10
Advertising Agency: Role and types of advertising agencies, selection of advertising agency; Social and Ethical aspects of advertising in India.		
Skill Development Activities:		
<ol style="list-style-type: none"> 1. Analyze the audience feedback on advertisement of any one FMCG. 2. List out any ten products/services advertised through internet. 3. Design any two ads for Newspaper. 4. Examine the legal aspects of advertising in India and submit the report. 		

Books for Reference:

1. George E Belch, Michael A Belch, Keyoor Purani, Advertising and Promotion .An Integrated Marketing Communications Perspective (SIE), McGraw Hill Education
2. S. Wats Dunn, and Arnold M. Barban. Advertising: It's Role in Marketing. Dryden Press
3. Burnett, Wells, and Moriatty. Advertising: Principles and Practice. 5th ed. Prentice Hall of India, New Delhi.
4. Batra, Myers and Aakers. Advertising Management. PHI Learning.
5. Terence A. Shimp. Advertising and Promotion: An IMC Approach. Cengage Learning.
6. Sharma, Kavita. Advertising: Planning and Decision Making, Taxmann Publications
7. Jaishree Jethwaney and Shruti Jain, Advertising Management, Oxford University Press, 2012
8. Chunawala and Sethia, Advertising, Himalaya Publishing House
9. Ruchi Gupta, Advertising, S. Chand & Co.
10. O'Guinn, Advertising and Promotion: An Integrated Brand Approach, Cengage Learning

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. 3.5 (OEC) NAME OF THE COURSE: ENTREPRENEURSHIP SKILLS		
Course Credits	No. of Hours per Week	Total No. of Teaching Hours
3 Credits	3 Hrs.	42 Hrs.
Pedagogy: Classroom lectures, Case studies, Group discussion & Seminar etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> a. Discover their strengths and weaknesses in developing the entrepreneurial mind-set. b. Familiarize themselves with the mechanism of setting up, monitoring and maintaining an Enterprise. c. Understand the various procedures for setting up the Startups in India. d. Understand the role of Government in supporting entrepreneurship 		
Syllabus:		Hours
Module No.1	Introduction	14
Introduction to Entrepreneurship- Need of becoming entrepreneur- Traits of successful entrepreneur, enabling environment available to become an entrepreneur; Business Development Process; Self-discovery, Idea Generation-Idea Evaluation-Feasibility analysis- Finding team.		
Module No. 2: Enterprise Set-up		10
Procedure for setting up an enterprise; Different aspects involved in setting up an enterprise: Legal Aspects, Marketing Aspects, Managerial Aspects and Financial Aspects.		
Module No. 3: Monitoring and Maintaining an Enterprise		10
Importance of Monitoring and Maintaining and enterprise; Monitoring mechanism for maintaining an enterprise- Introduction to different government schemes supporting entrepreneurship.		
Module No. 4: Startups in India		08
Meaning – Establishment of Startups – Procedure for Startups – Benefits of growing startups to the Indian Economy, Emerging trends in startups-Domains that are ruling in the startup space in India.		

Skill Development Activities:

1. Prepare a budget for a new business with imaginary figures.
2. Identify the traits required for an entrepreneur.
3. List out practical challenges in setting-up a business enterprise.
4. List out the various Government schemes for promoting entrepreneurs.

Books for Reference:

1. Entrepreneurship - Starting, Developing, and Management a new Enterprise – Hisrich and –Peters-Irwin
2. Fayolle A (2007) Entrepreneurship and new value creation. Cambridge, Cambridge University Press
3. Hougard S. (2005) The business idea. Berlin, Springer
4. Lowe R & S Mariott (2006) Enterprise: Entrepreneurship & Innovation. Burlington, Butterworth Heinemann

Name of the Program: B.com (Data Analytics) Course Code: 4.1 Name of the Course: HUMAN RESOURCE MANAGEMENT		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, tutorials, Group discussion, Seminar, Case studies & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> Ability to describe the role and responsibility of Human resources management functions on business Ability to describe HRP, Recruitment and Selection process Ability to describe to induction, training, and compensation aspects. Ability to explain performance appraisal and its process. Ability to demonstrate Employee Engagement and Psychological Contract. 		
SYLLABUS:		HOURS
Module No. 1: Introduction to Human Resource Management		10
Meaning and Definition of HRM – Features Objectives, Differences between Human Resource Management and Personnel Management, Importance, Functions and Process of HRM, Role of HR Manager, Trends influencing HR practices		
Module No. 2: Human Resource Planning, Recruitment & Selection		14
Human Resource Planning: Meaning and Importance of Human Resource Planning, Process recruitment of HRP; HR Demand Forecasting- Meaning and Techniques (Meanings Only) and HR supply forecasting; Succession Planning – Meaning and Features Job Analysis: Meaning and Uses of Job Analysis, Process of Job Analysis – Job Description, Job Specification, Job Enlargement, Job Rotation, Job Enrichment (Meanings Only) Recruitment – Meaning, Methods of Recruitment, Factors affecting Recruitment, Sources of Recruitment; Selection – Meaning, Steps in Selection Process, Psychometric tests for Selection, Barriers to effective Selection, Making Selection effective; Placement, Gamification – Meaning and Features		
Module No. 3: Induction, Training and Compensation		10
Induction: Meaning, Objectives and Purpose of Induction, Problems faced during Induction, Induction Program Planning. Training: Need for training, Benefits of training, Assessment of Training Needs and Methods of Training and Development; Kirkpatrick Model; Career Development. Compensation: Direct and Indirect forms of Compensation (Meaning Only), Compensation Structure.		

Module No. 4: Performance Appraisal, Promotion & Transfers	14
Performance appraisal: Meaning and Definition, Objectives and Methods of Performance Appraisal – Uses and Limitations of Performance Appraisal, Process of Performance Appraisal; Promotion: Meaning and Definition of Promotion, Purpose of Promotion, Basis of promotion; Transfer: Meaning of Transfer, Reasons for Transfer, Types of Transfer, Right Sizing of Work Force, Need for Right Sizing	
Module No. 5: Employee Engagement and Psychological Contract	08
Employee Engagement (EE): Meaning and Types of EE, Drivers of Engagement - Measurement of EE, Benefits of EE. Psychological contract: Meaning and features	
Skill Development Activities:	
<ol style="list-style-type: none"> 1. Preparation of Job Descriptions and Job specifications for a Job profile 2. Choose any MNC and present your observations on training program 3. Develop a format for performance appraisal of an employee. 4. Discussion of any two Employee Engagement models. 5. Analysis of components of pay structure based on the CTC sent by the Corporate to the institute for the various jobs of different sectors. 	
Books for Reference:	
<ol style="list-style-type: none"> 1. Aswathappa, Human Resource Management, McGraw Hill 2. Edwin Flippo, Personnel Management, McGraw Hill 3. C.B.Mamoria, Personnel Management, HPH 4. Subba Rao, Personnel and Human Resources Management, HPH 5. Reddy & Appanainah, Human Resource Management, HPH 6. Madhurimalal, Human Resource Management, HPH 7. S.Sadri & Others: Geometry of HR, HPH 8. Rajkumar: Human Resource Management I.K. Intl 9. Michael Porter, HRM and Human Relations, Juta & Co.Ltd. 10. K. Venkataramana, Human Resource Management, SHBP 11. Chartered Accountants of India, New Delhi. 	

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. DA 4.2 Name of the Course: PRINCIPLES OF MARKETING		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, tutorials, Group discussion, Seminar, Case studies & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ul style="list-style-type: none"> a. Understand the basic concepts of marketing and assess the marketing environment. b. Discover the new product development & identify the factors affecting the price of a Product in the present context. c. Judge the impact of promotional techniques on the customers & importance of channels of distribution. d. Outline the recent developments in the field of marketing. e. Analyze the consumer behavior in the present scenario and marketing segmentation 		
SYLLABUS:		HOURS
Module 1: Introduction to Marketing		12
Marketing: Introduction- Meaning- Nature - Scope-Importance of Marketing; Concepts & Approaches of Marketing; Concept of Need-Want-Demand - Customer Value - Customer Creation; Differences between Selling vs. Marketing; Marketing Management (concept only). Marketing Environment: Meaning-importance-Micro and Macro Environment in Marketing. Marketing Mix – Product – Price - Place & Promotion.		
Module 2: Consumer Behaviour & Market Segmentation		12
Consumer Behaviour: Meaning and importance of consumer behaviour-Consumer buying decision process; Factors influencing consumer buying behavior. Market Segmentation: Meaning, importance and bases of market segmentation.		
Module 3: Product and Pricing		12
Product: Meaning and features - product classification- Concept of product line, product mix, Branding, Packaging and labelling; Product Life Cycle – meaning and Stages in Product Life Cycle - New product Development- Meaning and stages in NPD Pricing: Meaning and Significance; Factors affecting price of a product; Types of Pricing and pricing strategies.		
Module 4: Promotion and Distribution		12
Promotion: Meaning and importance of promotion; Types of promotion: advertising, personal selling and sales promotion and their distinctive characteristics. Promotion Mix and factors affecting promotion mix decisions. Distribution: Meaning and types of channels of distribution, Factors affecting choice of distribution channel.		
Module 5: Recent Developments in Marketing		08

Online marketing, direct marketing, services marketing, green marketing, Rural marketing; Search Engine Marketing-Mobile Marketing- Social Media Marketing-Email Marketing-Network Marketing (concepts only).

Skill Development Activities:

- a. Analyse the consumer behaviour of people in your locality and identify their needs, wants & purchasing power as customers.
- b. Collect information on consumer behaviour towards home appliances in your locality.
- c. Visit any departmental store and collect the information on quantity pricing (Eg: one unit vs. multiple units or 1 kg vs. 5, 10 or 100 kgs.) of any two home consumption products.
- d. Develop a logo, Tag line and an advertisement for your own clothing brand.
- e. Identify some of the recent promotion strategies adopted by a few large companies.
- f. List out the salient features of a good advertisement copy.

Books for Reference:

1. Philip Kotler (2015), Principles of Marketing. 13th edition. Pearson Education.
2. Saxena Rajan, (2017) Marketing Management, Tata McGraw-Hill Publishing Company Ltd., New Delhi. Fifth Edition.
3. Kumar Arun & Meenakshi N (2016), Marketing Management, Vikas Publishing House Pvt. Ltd., New Delhi. Third Edition
4. Panda Tapan (2008), Marketing Management, Excel books, New Delhi, Second Edition.
5. Michael, J. Etzel, Bruce J. Walker, William J Stanton and Ajay Pandit. Marketing: Concepts and Cases. (Special Indian Edition), McGraw Hill Education
6. William D. Perreault, and McCarthy, E. Jerome., Basic Marketing. Pearson Education.
7. Majaro, Simon. The Essence of Marketing. Pearson Education, New Delhi.
8. Iacobucci and Kapoor, Marketing Management: A South Asian Perspective. Cengage Learning.
9. Chhabra, T.N., and S. K. Grover. Marketing Management. Fourth Edition.

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. DA 4.3 Name of the Course: DATA SCIENCE LIFE CYCLE		
COURSE CREDITS	NO. OF HOURS PER WEEK	TOTAL NO. OF TEACHING HOURS
4 CREDITS	4 HOURS	56 HOURS
Pedagogy: Classroom lectures, Case studies, Tutorial classes, Group discussion, Seminar & field work etc.,		
Course Outcomes: On successful completion of the course, the students will be able to: <ol style="list-style-type: none"> 1. Understand the Concept of Data Science and its Life Cycle. 2. Prepare the Visualization of Data. 3. Understand the concept of Hadoop and HDFS 4. Understand the concept of Machine Learning and Algorithm. 5. Understand the basics of NLP. 		
SYLLABUS:		HOURS
Module No. 1: Introduction to Data Science		12
What is Data Science? What does Data Science involve? Data science process – roles, stages in data science, Era/History of Data Science, Business Intelligence v/s Data Science, Life cycle of Data Science, Tools of Data Science, Data Extraction & Exploration, Data Analysis Pipeline, Types of Data Raw and Processed Data, Exploratory Data Analysis		
Module No. 2: Visualization of Data		12
Introduction to Visualization, Human Perception and Information Processing, Graphical perception (the ability of viewers to interpret visual (graphical) encodings of information and thereby decode information in graphs Color for information display, Color management systems, Picture visualization and end result, Data Transformation into sources of knowledge through visual representation, Requirements and heuristics for high-quality visualizations. Charts and standard views: relevance and appropriateness. Advanced and innovative tools for data visualization and advanced quantitative analysis, the evaluation of the quality of visualizations and info-graphics		
Module No. 3: Hadoop and HDFS		12
History of Hadoop, Apache Hadoop, Analysing Data with Hadoop, Hadoop Streaming, Hadoop Echo System, IBM Big Data Strategy, Introduction to Info-sphere Big-Insights and Big Sheets. HDFS (Hadoop Distributed File System): The Design of HDFS, HDFS Concepts, Command Line Interface, Hadoop file system interfaces, Data flow, Data Ingest with Flume and Scoop and Hadoop archives, Hadoop I/O: Compression, Serialization, Avro and File-Based Data structures		

Module No. 4: Basics of Machine Learning	12
<p>What is Machine Learning? Types of Machine Learning, How does a Machine Learning Algorithm works, Parametric and Non-Parametric Algorithms, Regression and Classification:- Linear regression, cost function, gradient descent, polynomial regression, cost function for logistic regression, regularization, evaluation of machine learning model. Clustering, Preparing Data, Outliers, Problems of Under-fitting and Over- fitting, the bias – Variance trade-off, Data science packages</p>	
Module No. 5: Basics of Natural Language Processing (NLP)	08
<p>Overview: Origins and challenges of NLP- Theory of Language - Features of Indian Languages – Issues in Font –Models and Algorithms- NLP Applications. Morphology And Parts-of-Speech: Phonology – Computational Phonology - Words and Morphemes – Segmentation – Categorization and Lemmatization – Word Form Recognition – Valency -Agreement - Regular Expressions – Finite State Automata – Morphology- Morphological issues of Indian Languages – Transliteration.</p>	
<p>Books for Reference:</p> <ol style="list-style-type: none"> 1. Chris Eaton, Dirk Deroos, Tom Deutsch et al., “Understanding Big Data”, McGrawHill, 2012. 2. Alberto Cordoba, “Understanding the Predictive Analytics Lifecycle”, Wiley, 2014. 3. Eric Siegel, Thomas H. Davenport, “Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die”, Wiley, 2013. 4. James R Evans, “Business Analytics – Methods, Models and Decisions”, Pearson 2013. 5. R. N. Prasad, Seema Acharya, “Fundamentals of Business Analytics”, Wiley, 2015. 6. S M Ross, “Introduction to Probability and Statistics for Engineers and Scientists”, Academic Foundation, 2011. 7. David Hand, Heiki Mannila, Padhria Smyth, “Principles of Data Mining”, PHI 2013. 8. Spyros Makridakis, Steven C Wheelwright, Rob J Hyndman, “Forecasting methods and applications”, Wiley 2013(Reprint). 9. David Hand, Heikki Mannila, Padhraic Smyth, “Principles of Datamining”, PHI 2013. 10. http://cran.r-project.org/doc/manuals/R-intro.html 11. W.N. Venables, D.M Smith, “An introduction to R”, 12. R in Nutshell , O Reilly, 	

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. 4.5 b (OEC) Name of the Course: BANKING OPERATIONS		
Course Credits	No. of Hours per Week	Total No. of Teaching Hours
3 Credits	3 Hrs.	42 Hrs.
Pedagogy: Classroom lectures, Case studies, Group discussion & Seminar etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> 1. Understand the concept of banks and banking and its operations 2. Comprehend the procedures and risks involved in different types of accounts 3. Utilize the knowledge for bank operations 4. Comprehend the recent banking practices 		
Syllabus:		Hours
Module No. 1: Introduction to Banking		10
Introduction to Banking: Meaning, Importance, Types of banks in India, Functions of Banks - Primary, Secondary & Modern functions of banks; RBI -Role & Functions of RBI.		
Module No. 2: Different types of Accounts		10
Different types of Accounts – Savings Account, Current Account, Fixed Deposit Account, Recurring Deposit account- Features and Procedure for opening and operating these accounts. Special types of accounts: Procedure for opening and operating the accounts of Sole proprietorship, partnership accounts, Joint Stock Companies, Minor, illiterates, joint account holders, clubs and associations, Hindu Undivided family. Cheques: Meaning, Definition and features of Cheques; Crossing of Cheques – Types of Crossing; Endorsements: Meaning, Kinds of Endorsement.		
Module No. 3: Loans and Advances		08
Loans and Advances; Different types of loans, Kinds of lending facilities- Loans and advances, Cash Credit, Overdraft and Bills discounting, Procedure for borrowing and lending, precautions to be taken by the banker and customer, documents to be submitted for borrowing loans.		
Module No. 4: Innovations in Banking Operations		08
Technologies in Banking Operations: Debit and Credit Cards, Internet banking, M-Banking, ATM, Electronic fund transfer, MICR, RTGS, NEFT, Digital Platforms.		
Skill Development Activities: <ol style="list-style-type: none"> 1. Collect and fill dummy account opening form for a savings account and fixed deposit account of any bank. 2. Draft specimen of a cheque and fill up the details with imaginary names. 3. List out some of the recent banking practices in India 4. Collect and fill dummy RTGS/ NEFT form of any bank. 		

Books for Reference:

1. Nagarajan. G, Sudesh and Raju. G.S (2021); Law and Practice of Banking, Jayvee International Publications, Bangalore.
2. Gordon & Natarajan, Banking Theory Law and Practice, HPH, 24th Edition
3. S. P. Srivastava (2016), Banking Theory & Practice, Anmol Publications
4. Maheshwari. S.N. (2014), Banking Law and Practice, Kalyani Publishers, 11 Edition
5. Shekar. K.C (2013), Banking Theory Law and Practice, Vikas Publication, 21st Edition.
6. Dr. Alice Mani (2015), Banking Law and Operation, SBH.

Name of the Program: Bachelor of Commerce (Data Analytics) Course Code: B.Com. 4.6 (OEC) NAME OF THE COURSE: PRINCIPLES OF EVENT MANAGEMENT		
Course Credits	No. of Hours per Week	Total No. of Teaching Hours
3 Credits	3 Hrs.	42 Hrs.
Pedagogy: Classroom lectures, Case studies, Group discussion & Seminar etc.,		
Course Outcomes: On successful completion of the course, the students will be able to <ol style="list-style-type: none"> 1. Understand the significance of various events 2. Demonstrate the ability to organize the event. 3. Demonstrate the ability to conduct the event. 4. Prepare the budget require for conducting an event. 		
Syllabus:		Hours
Module No. 1: Introduction to Event Management		12
Event- Meaning, Importance and Types of Events, Analysis of Event, Event Management- Meaning, Decision Makers and their Roles and Responsibilities, 5 Cs of Event Management.		
Module No. 2: Event Management Planning and Procedure		12
Establishing of Policies & Procedures, Steps in Planning the event, Principles of Event Management, Permissions and Licenses from Government and Local Authorities.		
Module No. 3: Conduct of an Event.		12
Preparing a Planning Schedule, Steps in Organizing an event, Assigning Responsibility, Event Safety and Security, Conducting the Event-Checklist (Pre, during and post event check list), Communication- channels of communications for different types of events,		
Module No. 4: Budgeting and Reporting		10
Preparation of Event Budget-Items of expenditure for various events, managing the event budget. Reporting of event- organizing the event report, steps in preparing the event report.		
Skill Development <ol style="list-style-type: none"> 1. Preparation of Event Plan for a Wedding. 2. Preparing Budget for conduct of National level sports meet of a college. 3. Preparation of Event Check List for College Day Celebrations 4. Preparation of Budget for Conducting inter collegiate fest. 5. Prepare a brief report of a student's seminar conducted in your college. 		

Book for References:

1. Event Entertainment and Production – Author: Mark Sonderm CSEP Publisher: Wiley & Sons, Inc. ISBN: 0-471-26306-0
2. Anne Stephen – Event Management
3. Special Event Production – Doug Matthews – ISBN 978-0-7506-8523-8
4. The Complete Guide to successful Event Planning – Shannon Kilkenny
5. Human Resource Management for Events – Lynn Van der Wagen (Author)
6. Successful Team Management (Paperback) – Nick Hayed (Author)
7. Event Management & Public Relations by Savita Mohan – Enkay Publishing House
8. Event Management & Public Relations by Swarup K. Goyal – Adhyayan Publisher – 2009
9. Principle of Event Management – Shrikant S., Skyward Publisher.

TEMPLATE FOR INTERNAL ASSESSMENT TEST - B.COM (DA)

Course Code:

Name of the Course:

Duration: 1 Hour

Total Marks: 20

SECTION-A

(Based on the Remembering)

I. Answer Any Two of the following questions. Each carries Two Marks.

(2 x 2= 4)

- 1.
- 2.
- 3.

SECTION- B

(Understanding and Applying)

II. Answer Any Two of the following questions. Each carries Eight marks.

(2 x 8= 16)

- 4.
- 5.
- 6.

SEMESTER END EXAMINATION - TEMPLATE

B.COM - DA

Course Code:

Name of the Course:

Duration: 2.00 Hours

Total Marks: 60

SECTION-A **(Conceptual Questions)**

I. Answer any Five of the following questions. Each question carries Two Marks. (5 x 2= 10)

- a.
- b.
- c.
- d.
- e.
- f.
- g.

SECTION- B **(Application Questions)**

Answer any Four of the following question. Each question carries Five Marks. (4 x5= 20)

- 2.
- 3.
- 4.
- 5.
- 6.

SECTION- C **(Analyses and Understanding Questions)**

Answer Any Two of the following question. Each question carries Twelve Marks. (2 x12= 24)

- 7.
- 8.
- 9.

SECTION- D **(Skill Development Questions)**

Answer Any One of the following question, carries Six Marks. (1X6=6)

- 10.
- 11.

