BBA - Business Analytics

Single Major
From 2023-24 (Syllabus-Curriculum)
Course Structure

Semester	Course Number	Course Name	No. of Hrs/Week	No. of Credits
Semester-I	1	Fundamental of Commerce	4	4
	2	Business Organisation	4	4

SEMESTER-I

COURSE 1: FUNDAMENTALS OF COMMERCE

Theory	Credits: 4	4 hrs/week

Learning Objectives:
The objective of this paper is to help students to acquire conceptual knowledge of the Commerce, Economy and Role of Commerce in Economic Development. To acquire Knowledge on Accounting and Taxation.

Learning Outcomes:
At the end of the course, the student will able to
Identify the role commerce in Economic Development and Societal Development. Equip with the knowledge of imports and exports and Balance of Payments. Develop the skill of accounting and accounting principles. They acquire knowledge on micro and micro economics and factors determine demand and supply. An idea of Indian Tax system and various taxes levied on in India. They will acquire skills on web design and digital marketing.

Unit 1: Introduction: Definition of Commerce – Role of Commerce in Economic Development - Role Commerce in Societal Development. Imports and Exports, Balance of Payments. World Trade Organization.

Unit 2: Economic Theory: Macro Economics – Meaning, Definition, Measurements of National Income, Concepts of National Income. Micro Economics – Demand and Supply. Elasticity of Demand and Supply. Classification of Markets -Perfect Competition – Characteristics – Equilibrium Price, Marginal Utility.
.
Unit 3: Accounting Principles: Meaning and Objectives Accounting, Accounting Cycle - Branches of Accounting - Financial Accounting, Cost Accounting, Management Accounting. Concepts and Conventions of Accounting – GAAP.

Unit 4: Taxation: Meaning of Tax, Taxation - Types of Tax- Income Tax, Corporate Taxation, GST, Customs & Exercise. Differences between Direct and Indirect Tax – Objectives of Tax- Concerned authorities – Central Board of Direct Taxes (CBDT) and Central Board of Excise and Customs (CBIC).

Unit 5: Computer Essentials: Web Design - Word Press Basics, Developing a Simple Website. Digital Marketing - Social Media Marketing, Content Marketing, Search Engine Optimization (SEO), E-mail Marketing. Data Analytics- Prediction of customer behavior, customized suggestions.

Lab Exercise:
- Build a sample website to display product information.
- Provide wide publicity for your product over social media and e-mail
- Estimate the customer behavior and provide necessary suggestions regarding the products of his interest.

Activities:
- Assignment on GAAP.
- Group Activates on Problem solving.
- Collect date and report the role of Commerce in Economic Development.
- Analyze the demand and supply of a product and make a scheduled based on your analysis, problems on elasticity of demand.
- Identify the Tax and distinguish between Direct Tax and Indirect Tax.
- Assignments and students seminars on Demand function and demand curves
- Quiz Programs
- Assignment on different types of taxes which generate revenue to the Government of India.
- Invited lectures on GST and Taxation system
- Problem Solving Exercises on current economy situation.
- Co-operative learning on Accounting Principles.
- Group Discussions on problems relating to topics covered by syllabus
- Examinations (Scheduled and surprise tests)
- Any similar activities with imaginative thinking beyond the prescribed syllabus

Reference Books:
1. S.P. Jain & K.L Narang, Accountancy - I Kalyani Publishers.
2. R.L. Gupta & V.K. Gupta, Principles and Practice of Accounting, Sultan Chand
3. Business Economics -S.Sankaran, Margham Publications, Chennai.
4. Business Economics - Kalyani Publications.
5. Dr. Vinod K. Singhania: Direct Taxes – Law and Practice, Taxmann Publications.
6. Dr. Mehrotra and Dr. Goyal: Direct Taxes – Law and Practice, SahityaBhavan Publications
.

SEMESTER-I

COURSE 2: BUSINESS ORGANIZATION

Theory	Credits: 4	4 hrs/week

Learning Objectives:

The course aims to acquire conceptual knowledge of business, formation various business organizations. To provide the knowledge on deciding plant location, plan layout and business combinations.

Learning outcomes:

After completing this course a student will have:

Ability to understand the concept of Business Organization along with the basic laws and norms of Business Organization. The ability to understand the terminologies associated with the field of Business Organization along with their relevance and to identify the appropriate types and functioning of Business Organization for solving different problems. The application of Business Organization principles to solve business and industry related problems and to understand the concept of Sole Proprietorship, Partnership and Joint Stock Company etc.

Unit 1: Business: Concept, Meaning, Features, Stages of development of business and importance of business. Classification of Business Activities. Meaning, Characteristics, Importance and Objectives of Business Organization.. Difference between Industry & Commerce and Business & Profession, Modern Business and their Characteristics.

Unit 2: Promotion of Business: Considerations in Establishing New Business. Qualities of a Successful Businessman. Forms of Business Organization - Sole Proprietorship, Partnership, Joint Stock Companies & Co-operatives and their Characteristics, relative merits and demerits, Difference between Private and Public Company, Concept of One Person Company.

Unit 3: Plant Location and Layout: Meaning, Importance, Factors affecting Plant Location. Plant Layout - Meaning, Objectives, Importance, Types of Layout. Factors affecting Layout. Size of Business Unit - Criteria for Measuring the Size and Factors affecting the Size. Optimum Size and factors determining the Optimum Size.

Unit 4: Business Combination: Meaning, Characteristics, Objectives, Causes, Forms and Kinds of Business Combination. Rationalization: Meaning, Characteristics, Objectives, Principles, Merits and demerits, Difference between Rationalization and Nationalization.

Unit 5: Computer Essentials: Milestones of Computer Evolution – Computer, Block diagram, generations of computer . Internet Basics - Internet, history, Internet Service Providers,

Types of Networks, IP, Domain Name Services, applications. Ethical and Social Implications - Network and security concepts- Information Assurance Fundamentals, Cryptography - Symmetric and Asymmetric, Malware, Firewalls, Fraud Techniques, privacy and data protection

Activities:
- Assignment on business organizations and modern business.
- Group Discussion on factors that influence plan location
- Seminars on different topics related to Business organization
- Case study could be given to present business plan of students choice.
- Identifying the attributes of network (Topology, service provider, IP address and bandwidth of your college network) and prepare a report covering network architecture.
- Identify the types of malwares and required firewalls to provide security.
- Latest Fraud techniques used by hackers.

Reference Books:
1. Gupta, C.B., "Business Organisation", Mayur Publiction, (2014).
2. Singh, B.P., Chhabra, T.N., "An Introduction to Business Organisation & Management", Kitab Mahal, (2014).
3. Sherlekar, S.A. &Sherlekar, V.S, "Modern Business Organization & Management Systems Approach Mumbai", Himalaya Publishing House, (2000).
4. Bhusan Y. K., "Business Organization", Sultan Chand & Sons.
5. Prakash, Jagdish, "Business Organistaton and Management", Kitab Mahal Publishers (Hindi and English)
6. Fundamentals of Computers by V. Raja Raman
7. Cyber Security Essentials by James Graham, Richard Howard, Ryan Olson

Course – I & II Model Paper (70 Marks)

SECTION A (Multiple Choice Questions)   **30 x 1 = 30 M**

30 Multiple Choice Questions (Each Unit 6 Questions)

SECTION B (Fill in the blanks)   **10 x 1 = 10 M**

10 Fill in the Blanks (Each Unit 2 Questions)

SECTION C (Very short answer questions)   **10 x 1 = 10 M**

10 Very short answer questions (Each Unit 2 Questions)

SECTION D (Matching) (From 5 Units)   **2 x 5 = 10 M**

1 A
   B
   C
   D
   E

2 A
   B
   C
   D
   E

SECTION E (True or False)   **10 x 1 = 10 M**

10 True or False (Each Unit 2 Questions)

Programme B.B.A. Business Analytics (Major)

W.E.F AY 2023-24

COURSE STRUCTURE

Semester	Course Number	Course Name	No of Hrs/Week	No of Credits
Semester - II	3	Statistical Methods	4	4
	4	Introduction to Business Analytics	4	4

Programme B.B.A. Business Analytics (Major)

STATISTICAL METHODS

Course Objectives: The objective of this course is to provide an understanding for the graduate business student on statistical concepts to include measurements of location and dispersion, probability, probability distributions, sampling, estimation, hypothesis testing, regression, and correlation analysis, multiple regression

Learning Outcomes:

 ➢ To understand the theoretical foundation in probability and statistical inference.
 ➢ To have developed computational and data analysis skills including facility with statistical software and acquisition of data management skills, with an emphasis on reproducible analysis.

UNIT I:

Measures of Central Tendency: Introduction, Arithmetic mean, geometric mean, harmonic mean, median, mode. Measures of Dispersion: Introduction, Range, Quartile deviation, Mean deviation, Standard deviation, combined mean and combined standard deviation.

UNIT II: Correlation Analysis: Introduction, types of correlation, Methods of Correlation analysis, Scatter diagram method, Karl

Pearson's correlation coefficient, Coefficient of determination, Spearman's rank correlation coefficient.

Regression Analysis: Introduction, Types of regression models, Significance of Regression Analysis, Methods of finding Regression Equations, Least Squares and Using Regression Coefficient methods, Prediction using the Regression Equations.

UNIT III:Probability – Definitions of various terms, Types of probability, Bayes' Theorem. Random variable and Probability Distribution – Definition, Probability distribution of discrete and continuous random variable, Mean and Variance.

Discrete distribution – Introduction, Binomial distribution, Poisson distribution, Mean and Variance.

Continuous distribution– Normal distribution, Properties of Normal distribution, Area under Standard Normal Probability Curve and Importance of Normal Distribution.

UNIT IV:

Index numbers, Introduction, Characteristics and Uses of index numbers, Types of Index Numbers, Laspyre, Paasche's, Fisher's, Marshall-Edgeworth,Dorbish and Bowley, Limitations of index numbers.

UNIT V:Time series analysis – Introduction, Components of a time series – Secular trend, Short term, Random or Irregular variations, Measurement of trend – Free hand method, Method of linear Curve fitting by the principle of least squares, Method of Semi - Averages and Moving average.

REFERENCE BOOKS

1. Gupta, S.C. & Gupta, I. (2012), Business Statistics, Mumbai: Himalaya Publishing House.

2. Levine, D.M., Berenson, M. L. & Stephan, D. (2012), Statistics for managers using Microsoft Excel, New Delhi: Prentice Hall India Pvt.

3. Aczel, A. D. &Sounderpandian, J. (2011), Complete Business Statistics, New Delhi: Tata McGraw Hill.

4. Anderson, D., Sweeney, D., Williams, T., Camm, J., & Cochran, J.

   (2013), Statistics for Business and Economics, New Delhi: Cengage Learning.

5. Davis, G., &Pecar, B. (2014), Business Statistics using Excel, NewDelhi: Oxford University Press.

Programme B.B.A. Business Analytics (Major)

Introduction to Business Analytics

Course Objectives: To enable all participants to recognise, understand and apply the language, theory and models of the field of business analytics and foster an ability to critically analyse, synthesise and solve complex unstructured business problems and encourage an aptitude for business improvement, innovation and entrepreneurial action

Learning Outcomes:

➢ Understand and critically apply the concepts and methods of business analytics

➢ Identify, model and solve decision problems in different settings

➢ Interpret results/solutions and identify appropriate courses of action for a given managerial situation whether a problem or an opportunity

➢ Create viable solutions to decision making problems

Unit-1 Introduction to Business Analytics

Concept of analytics, Types of Analytics, Application fields - Marketing Analytics, Finance Analytics, HR Analytics, Operation Analytics, organization and source of data, importance of data quality, dealing with missing or incomplete data, Role of Data Scientist in Business & Society

Unit-2 Data Bases, Data Warehousing and Data Mining

Types of Data Sources- Structured Vs Semi structured Vs Unstructured data, Data Warehouse Vs Databases, Relational Database vs Non-Relational Database, RDBMS Data structures, Columnar Data structures. Data Mining meaning, Association Rules and clustering, Decision trees, Random forests

Unit-3 Analytics Methodology

Introduction to Analytics Methodology, preparing objectives & identifying data requirements, Data Collection, Understanding data, Data preparation – Data Cleansing, Normalisation, Data preparation, Data Blending, Data Modelling, Evaluation & feedback

Unit-4: Visualisation of Data

Introduction, Data summarization methods; Tables, Graphs, Charts, Histograms, Frequency distributions, Relative Frequency Measures of Central Tendency and Dispersion; Box Plot; Basic probability concepts, conditional probability, Probability distributions, Continuous and discrete distributions, sequential decision making.

Unit-5: Predictive Analysis

Simple linear regression: coefficient of determination, significance tests, residual analysis, confidence and prediction intervals. Multiple linear regression: coefficient of multiple coefficient of determination, interpretation of regression coefficients, categorical variables, heteroscedasticity, multi-collinearity, outliers, autoregression and transformation of variables.

Text Books And Reference Books:

Turban E, Armson, JE, Liang, TP &Sharda, Decision support and Business Intelligence Systems, 8th Edition, John Wiley & Sons, 2007

Frank J. Ohlhorst, Big Data Analytics, 1st Edition, Wiley, 2012.

Efraim Turban, Ramesh Sharda, Jay Aronson, David King, Decision Support and Business Intelligence Systems, 9th Edition, Pearson Education, 2009

BLUE PRINT OF MODEL QUESTION PAPER (Sem-End. Examinations)

COURSE NAME

MODEL QUESTION PAPER - THEORY
Semester: …
Paper: ….., Title of the paper

Time: 3 Hours.   Max Marks: 70

SECTION – A

Answer any 5 questions. Each question carries 4 marks   (5 X 4 = 20M)
   (Total 8 questions, questions 1-5 from Units 1-5 & questions 6-8 from any of the units)

   1. Unit -I
   2. Unit-II
   3. Unit-III
   4. Unit-IV
   5. Unit-V
   6. From any Unit
   7. From any Unit
   8. From any Unit

SECTION – B

Answer all the questions. Each question carries 10 marks.   (5 X 10 = 50M)
   (Each question (both 'A' or 'B') from each Unit.

9. from Unit I
(OR)
 from Unit I

10. from Unit II
(OR)
from Unit II

11. from Unit III
(OR)
 from Unit III

12. from Unit IV
(OR)
 from Unit IV

13. from Unit V
(OR)
 from Unit V