



Diploma in Government Accounting & Internal Audit

Syllabus

National Institute of Financial Management

Faridabad (Haryana) India 121001

<http://www.nifm.ac.in>

First Term

Modern Manager (101)

1. Fundamentals of HR Management- Principles & Styles & Management Skills.
2. List of principles for Fixation of seniority promotion and confirmation.
3. Describe the procedure for conducting DPC and preparation of select lists.
4. (a) Describe the general conditions for grant of leave; (b) List of various kinds of leave under CSS (Leave Rules); (c) Describe salient features of eligibility conditions for leave of given kind; (d) calculate leave accrued to an employee during a period in a given situation.
5. Service Book on appointment of an employee and how to maintain the Service Book and Making entries at appropriate time.
6. Procurement of Human Resources- Procedure.
7. Development: Career Planning and Development, Employee Training, Executive Development, Internal Mobility and Retirement.
8. Performance Appraisal (APAR)- Guidelines for filling self Appraisal, Reporting and Reviewing.
9. Reading/ interpretation of RRs and creation of Post.

The faculty for the same can be sourced from ISTM who have specialized in these subjects.

Accounting for Managers (102)

To provide the officers a thorough grounding of Commercial Accounting Concepts and Financial Statements with analysis of Financial Statements.

Unit I

1. Conceptual Framework of Accounting

- Users of Financial Statements;
- Capital of a Firm;
- Structure of Business Firms;
- Objectives of Corporate Financial Reporting;
- Components of Financial Statements;
- Accounting Conventions;
- Qualitative Characteristics of Financial Statements;
- True and Fair View;
- Accounting Policy
- Accounting Standards; Accounting Standards Disclosure of Accounting Policies (AS 1).

2. Accounting Records and Systems

- Journal,
- Cash Book,
- Ledger,
- Trial Balance
- Bank Reconciliation Statement.

3. Balance Sheet

- Accounting Equation;
- Balance Sheet Structure;
- Assets;
- Current Assets;
- Non-Current Assets;
- Classification of Assets;
- Liabilities;
- Current Liabilities;
- Non-Current Liabilities;
- Secured and Unsecured Liabilities;
- Classification of Liabilities;
- Accounting Standards Contingencies and Events
- Occurring after the Balance Sheet Date (AS-4).

Unit II

4. Structure of Profit and Loss Account

- Nature of Profit and Loss Account;
- Expenditure and Expenses;
- Income;
- Accrual Basis of Accounting;
- Structure of Profit and Loss Account;
- Extraordinary Items; Prior-Period Items;
- Accounting Standards on Net Profit or Loss for the period,
- Prior period items and changes in Accounting Policies (AS 5)

Cash Flow Statement

- Preparation of Cash Flow Statement;
- Presentation of Cash Flow Statement: Operating Activities;
- Investing Activities; Financing Activities;
- Foreign Currency Cash Flows; and Analysis;
- Accounting Standard on Cash Flow Statement (AS 3).

Unit III

5. Inventory Valuation

- Definition;
- General Principles;
- Inventory Costs;
- Use of Standard Cost Method and Retail Method; Cost
- Formulas; and Net Realizable Value (NRV);
- Accounting Standards; Valuation of Inventories (AS 2).

6. Revenue Recognition

- Introduction;
- General Principles;
- Measurement of Revenue;
- Collectability of Revenue;
- Matching Principle;
- Sale of Goods;
- Service Revenues;
- Sales of Real Estate;
- Interests and Dividends;
- Constructions Contracts; and
- Revenue Recognition under Indian GAAP-Accounting
- Standard on Revenue Recognition (AS 9).

7. Asset Accounting

- Depreciation Accounting;
- Fixed Assets Accounting (including a brief introduction to Impairment);
- Accounting Standards on Depreciation Accounting (AS 6);
- Accounting Standards on Accounting for Fixed Assets (AS10).

Unit IV

8. Financial Statements of Limited Companies

- Legal Requirement relating to preparation of Financial
- Statements of Companies (including Schedule III of the Companies Act, 2013);
- Note to the Accounts and Significant Accounting Policies
- Financial Reports and the contents of Annual Report.

9. Analysis of Financial Statements

- Introduction
- Accounting Policy and Quality of Earning;
- Earnings Management;
- Potential Red Flags;
- Common-size Financial Statement;
- Ratio Analysis; An Introduction;
- Measurement of Overall Performance of a Firm;
- Decomposing ROIC and ROCE; Turnover of Assets and Profitability;
- Decomposing ROE Gross Gearing; Effect of Financial **Leverage and Spread**;
- Assessing the Operating Management;
- Assessing the Solvency and Liquidity;
- Uses of Ratios for Internal Management; and
- Capital Market-Based Ratios.

Public Financial Administration (103)

Objective

Providing the participants a broad understanding of the current theories and practices in Public Financial Administration. Helping the participants to identify contemporary issues in Public Financial Administration in India and to formulate solutions in the light of theories and practices. Helping the participants to understand taxation policy, management of public expenditure, public debt and budgetary techniques and practices. The coverage of the subject will be with special emphasis on Indian experience.

Unit I

1. Public Finance

- Theories & Principles
- Fiscal functions
- Public financial administration in federal set up

2. Budgeting

- Objectives & types of budget
- Budgeting Process – Central & State Governments
- Constitutional provisions for preparation and presentation of Budget
- Finance Act & Appropriation Act
- Accounting and Economic Classification
- Approaches to budgeting – *Performance Budgeting* & Outcome Budget & gender Budgeting
- Budgetary Reforms & new initiatives

3. Public Expenditure

- Management and control
- Contemporary issues
- Trends in public expenditure
- *Classification of public expenditure*
- *Expenditure Reforms Commission*

Unit II

4. Revenue

- Taxation – principles and approach to an efficient tax system
- Tax structure – Direct and Indirect Taxes
- Incidence and impact of taxation – Laffer's Curve
- Non-Tax revenue sources, user charges
- GST
- Trends in Tax and Non-Tax Receipts

5. Public Debt

- Meaning and types: *External & Internal Debt*
- Borrowing powers of Union and States
- Role of RBI
- Public Debt Management in India

Unit III

6. Deficit Financing & Federal Finance

- Role & Objectives
- Limitation & Control of Deficit Financing
- Federal Finance in India
- Local Finance at village & urban level

7. Public Investment

- Programming and Management
- Concept and Purpose
- Role of *Niti Aayog*

8. Public Private Partnership Initiative

- Concept and purpose

9. Special Purpose Vehicle

- Concept and purpose

Unit IV

Fiscal Policy

- Objective
- Finance Commission
- Parliamentary Financial Committee
- Fiscal Policy and Developing Economy
- Fiscal responsibility and FRBM Act

Introduction to Information and Communication Technology (104)

Objective :

To introduce the beginners with the nuances of Information Technology and its applications in today's Smart Offices.. The course aims to equip the learner with the skills to understand and utilize IT in their day to day office work.

Unit-I

1. Information and Communication Technology, an overview

Introduction to ICT; overview of basic hardware and software components of a computer such as central processor, hard disk, memory, storage; operating system, application software; role of these components in smooth functioning and performance of a computer;

Basics of networking and different types of networks: LAN, WAN, Internet; various ways of connecting to the internet: overview of concepts such as dial up, leased line, satellite based connectivity; overview of the existing internet connectivity models in the country such as NICNET, SWAN, VPN, MPLS, Dongles.

Overview of use of internet in day to day office work; effective navigation, search and data download on the internet, different way of sending emails(web based, outlook etc) overview of basic concepts such as world wide web (WWW), http, https etc. which are of relevance to the internet.

Note: this unit required only to set the context and provide overview so the number of lectures (i.e. the time spent) on this unit must be half of those on the other units in the course.

Unit-II

2. Office management applications

Overview of commonly used office management applications such as MS Word, MS Excel, MS Powerpoint and MS Project. Advanced features of office tools - MS Word for documentation, especially report/note writing purposes; MS Powerpoint for effective presentations: appropriate use of text, graphics, audio, video, animation, hyperlinks, action buttons. Overview of the concept of different versions of office tools and forward and backward compatibility.

3. Use of Excel for effective data management

Overview of features of excel; use of formulas in excel; use of simple functions in excel; use of simple macros in excel; how to prepare and use complex interlinked workbooks

Application of excel in effective analysis and presentation of expenditure, receipt and accounting data as used in day to day office work.

Note: This unit must be delivered with practical examples and home assignments for each individual item such as word, power point and excel. In particular, excel teaching should have several practical hands on session in the computer lab.

UNIT-III

4. Introduction to Databases

Database approach to data management, overview of database design models (hierarchical, relational and network models), entities, attributes, keys, Database management system, relational database management system.

Basic features of MS-Access; how to create an access database, enter and edit data into the database, run queries on the database and creates reports from the database.

Note: the objective of this unit is to acquaint the trainees with the concept of relational databases and how they operate to manage and present complex data. The learning from this unit must give the perspective needed to understand how accounting data for government of India is being managed in applications and databases such as the PFMS. This unit must have assignments for hands on experiments in the computer lab.

UNIT-IV

5. Hands on Financial Accounting Tool- Introduction to Tally, basic features and navigation

Note: the objective of this unit is to acquaint the trainees with the commercial accounting package Tally. Though they may not use in day to day office work, a basic understanding is required which must be achieved via this unit.

UNIT-V

6. E-office: towards a paperless office

Overview of the key features of E-Office application of Government of India; introduction to different modules of E-Office; electronic file movement, electronic document management system, workflow automation, electronic messaging, personnel management and information systems.

Note: the objective of this unit is to acquaint the trainees with the E-Office application of Government of India (GoI) so that they can effectively contribute to its implementation in their respective offices and also to develop the skills and attitudes needs for creating paperless offices in GoI.

Internal Audit Activity- its role in Governance, Risk and Compliance (204)

1. Sharing of Best Practices/ Reports in Internal Audit, Examples/ case studies and discussions on:

- Audit Plan
- Audit Process
- Compliance/ Regulatory Audit report
- Special Audit Report
- Scheme Audit Report- Social & Infrastructure sectors
- Procurement Audit Report
- Grantee Institution/ Autonomous body Audit Report
- Risk Based Audit Report
- Performance Audit Report
- Internal Audit Annual Review
- Audit Manual
- Gender Audit

2. Internal Audit as a part of Risk Management process:

- Elements of Internal Control
- Elements of Risk Management Process
- Standards related to Risk Management & Governance
- Traditional Vs. Progressive approach (Risk Based Audit Approach) of Internal Audit
- COSO Internal Control Framework
- COSO Framework to manage enterprise Risk Management (ERM)
- Means of Internal Control Evaluation
- Role of Internal Audit in ERM
- Stages of RBIA
- Risk Based Internal Audit Plan, engagement & report
- Sharing of Best practices

3. Internal Audit in the Information Technology environment:

- Big data: IFMIS, PFMS, PARAS
- Data Analytics tools, Excel
- Computer Assisted Audit Tools (CAATs), Using IDEA Software – case Studies and Exercise, TEAMMATE
- Practical

4. Internal Audit Assignment:

- Planning, execution and report writing.

5. Evaluation of Internal Audit System & report:

- Factors affecting Performance
- Parameters of evaluation
- System of Periodic evaluation and monitoring
- Assessment of Internal Audit Report

6. Standard of Internal Audit

- Exposure to International Professional Practices Framework (IPPF) Standards may be included.

Business Statistics (BS)
Paper Code : 101(A)

Objective of the Paper : To enable the participants to use basic statistical techniques.

Classification and Tabulation of Data

1. Measures of central tendency and dispersion.
2. Correlation and regression (linear and bivariate only).
3. Probability and expected value.
4. Elements of theoretical distribution: binomial, poisson, normal.
5. Concept of standard error, interval estimation, determination of sample size, tests of hypotheses for
 1. proportions, means including means of paired data, independence of attributes, one population
 2. variance, equality of two variances, analysis of variance.
6. Time series and forecasting.
7. Index numbers

Books and References

1. Statistics for Business and Economics, David Anderson, Denis J Sweeney and Thomas A Williams,
 1. Thomson – South-Wester.
 2. Business Mathematics and Statistics by AP Verma, Asian Books.
 3. Business Statistics by JK Sharma 2nd Edition, Pearson Education 2007, New Delhi.

SECOND TERM

Government Audit-Emerging Issues (105)

1. Audit Framework in Government of India:

Statutory Audit, Internal Audit, Internal Control, Difference between Statutory and Internal Audit, Difference between Internal Audit & Internal Control. **Process of Internal Audit:** Internal Audit memo, Para, Report, Draft Audit Para, Audit Para, Audit Reports presented to Parliament, Action Taken Notes (ATNs), PAC/COPU Paras, Action Taken Reports (ATRs), Audit Para Monitoring System (APMS), Standing Audit Committee (SAC).

Role of Internal Audit: Assurance Service, Consultancy Service and adding value, Role in Good Governance.

Regulatory/ Compliance & Risk Based Audit.

2. Types of Audit:

Statutory Audit, Internal Audit, Government Audit, Cost Audit; Management Audit; Compliance Audit, Social Audit, Environment Audit., Expenditure Audit, Receipt Audit, Special Audit, Scheme Audit, Risk Based Audit, Investigative Audit to detect fraud, Performance Audit, Value for money audit- Economy, Efficiency and Effectiveness, Grantee Institutions/ Autonomous Bodies/ NGOs Audit, IT Audit; covering definitions, objectives, approach methodology and case studies and gender audit.

3. Techniques and Methodologies:

Physical Inspection, verification, test checking, Observation, Inquiry, Confirmation, Computation and Tracking Book Keeping/Record maintenance procedures, Analytical Procedures, Selection of Audit Techniques with Practical case studies/ examples. Sampling, data collection techniques, quantitative techniques, qualitative techniques, case studies.

4. General Principles of Transaction Audit

Vouching, Payments and Receipts, Physical Verification of Stores (Consumable and non-consumable goods).

5. Procurement & capital Expenditure Audit:

Procurement Audit

- Procedural and regulatory framework of Public Procurement
- CVC guidelines on Public Procurement
- Areas to be seen on procurement of Goods, Works and Services
- Small value procurements
- Contract Management Audit
- E-procurement
- Capex Audit: Infrastructure/ Construction/ Machinery & Equipment
- Overview of procurement through DGS&D

6. Code of Ethics for the Internal Auditing in Government

7. Internal Audit Process

- Process
- Audit Plan
- Audit Programme
- Constitution of Audit Party
- Audit Questionnaire
- Audit Engagement
- Managing entry meeting
- Designing patterns of communication
- Identification of possible barriers.
- Interpersonal skills and interview strategies
- Do's and Don'ts
- Audit memos
- Audit evidence
- Drafting of Audit Paras.
- 5C of Audit paras
- Planning exit meeting
- Drafting of Audit Report
- Standard format of Audit Reports
- Audit Compliance
- Internal Audit Annual Review
- Sharing of best practices.

8. Internal Audit Report:

Prerequisites and essential features of good audit report, format of audit report, basic elements of internal audit report, drafting audit/findings and report, 5Cs report, follow up action, case studies.

- Audit Report writing tasks
- Components of Audit observations
- Organization of Audit observations
- Audit Report Structure
- Quality of Reporting.

9. Standards of Internal Audit:

Exposure to standards & Guidance frameworks of ICAI, IIA & INTOSAI.

Government Accounting- Contemporary issues (201-A)

Unit-I

- Features of Govt. Accounting
- Accounting in Govt.- Origin Development & departmentalization of accounts
- Structure and form of Govt. Accounts, Consolidated fund, Contingency fund and Public Fund & GAR

Unit-II

- Classification of Govt. Accounts (LMMH), including practical, Constitutional Provisions
- Payment System: Functions of DDOs & controlling officers, preparation of bills, Pre check of Bills and payment in the PAO, methods of Payment, Banking arrangements, Focal point banking system. Personal Account, concept of accounting procedure PAO 2000, Electronic Payment system, Accounting Procedure-Reserve & Deposits

Unit-III

- Central Govt. (Receipt & Payment Rules)
- Transfer Entries Adjustment
- Rectification of Errors, Journal Entries

Unit-IV

- Appropriation Accounts Purpose Use Compilation Consolidation
- Finance Accounts Purpose Use Compilation Consolidation

Unit – IV

Accrual Accounts

- Principles of Accrual Accounts in government
- Principles of Accrual Accounts in Autonomous bodies
- IPSAS, IGFRS, Ind AS role of GASAB

Paper Code-202
COST & MANAGEMENT ACCOUNTING

COURSE OBJECTIVE: The objective of this course is to expose the officers to the applied aspect of accounting and making them familiar with the techniques of using Accounting inform action for decision making. Having been introduced to these techniques and having acquired the ability to understand accounting language, the Officers should be in a position to make effective use of accounting information in resolving the problems, which they may face as managers. Applied side of the subject will be given more emphasis and attentions compared to its conceptual aspect.

Unit I

Introduction: Accounting for Management, Role of Cost in decision making, Comparison of Management Accounting and Cost Accounting, types of cost, cost concepts, Elements of cost - Materials, Labour and overheads and their Allocation and Apportionment, preparation of Cost Sheet, Methods of Costing, Reconciliation of Cost and Financial Accounting.

Unit II

Marginal Costing: Marginal Costing versus Absorption Costing, Cost-Volume-Profit Analysis and P/V Ratio Analysis and their implications, Concept and uses of Contribution & Breakeven Point and their analysis for various types of decision-making like single product pricing, multi-product pricing, replacement, sales etc.

Unit III

Differential Costing and Incremental Costing: Concept, uses and applications, Methods of calculation of these costs and their role in management decision making like sales, replacement, buying etc. **Budgeting:** Concept of Budget, Budgeting and Budgetary Control, Types of Budget, Static and Flexible Budgeting, Preparation of Cash Budget, Sales Budget, Production Budget, Materials Budget, Capital Expenditure Budget and Master Budget, Advantages and Limitations of Budgetary Control.

Unit IV

Standard Costing: Concept of standard costs, establishing various cost standards, calculation of Material Variance, Labour Variance, and Overhead Variance, and its applications and implications. **Neo Concepts for Decision Making :** Activity Based Costing, Cost Management, Value Chain Analysis, Target Costing & Life Cycle Costing : concept, strategies and applications of each.

Unit V

Responsibility Accounting & Transfer Pricing: Concept and various approaches to Responsibility Accounting, concept of investment centre, cost centre, profit centre and responsibility centre and its managerial implications, Absorption Costing.

SUGGESTED READINGS:

1. Pandey I M - Management Accounting (Vikas, 2004, 3rd Ed.)
2. Vij-Management Accounting (Excel Books)
3. Balakrishnan _ Managerial Accounting (Wiley Dreamtech)
4. Alex –Cost Accounting (Pearson)
5. Khan and Jain - Management Accounting (Tata McGraw-Hill, 2000)
6. Sinha- Accounting and Costing for Management (Excel Books)
7. Horngren et al - Introduction to Management Accounting (Prentice hall, 2002, 12th edition)

Information System for Managers (203)

Subject Changed to “Digitisation Technologies for Accounting officials”

Objective: To introduce the learners to online payment technologies and applications. This learning shall be achieved in context of online financial transactions conducted in existing applications, databases and technologies being used by the payment, receipt and accounting organizations in Government of India.

Unit-I

1. Digital Banking- what is meant by Electronic/ Digital banking; strategic objectives of electronic banking: Retail Banking, E-Commerce; Overview of Electric Clearances Systems, concepts such as NEFIT, RTGS; Core Banking Solution (CBS) mobile banking.

Note: the objective of this unit is to acquaint the trainees with the basic concepts on electronic banking technologies. This is in context of the various ePayment and eReceipt applications of GoI which interface with the banking applications for conducting financial transactions.

Unit-II

2. Data security in financial transactions- Overview of Data security; Elements of application and data security; overview of concepts like cryptography; firewalls, SSL, Access controls. PCIDSS; Digital signatures: key features and types; Data Storage; Data recovery; Data Centre management; Elements of a Data Security Policy.

Note: the objective of this unit is to acquaint the trainees with the basic concepts related to data security in context of the electronic financial transactions conducted on GoI applications.

Unit-III

3. Payment Gateway Technologies- Overview of Payment Gateways, Payment Gateway Aggregators; overview of flow of a payment gateway transaction; Data exchange protocols: FTP, SFTP; concepts like Card Association, Issuing Banks, Acquiring Banks, Processor, Merchant accounts, Merchant Discount Rates, chargeback.

Note: the objective of this unit is to acquaint the trainees with the basic concepts, flowsend stakeholders wrtPayment Gateway technologies. This is in context of the various ePayment and eReceipt applications of GoI such as PFMS and NTRP which use Payment Gateways.

Unit-IV

4. Electronic Payments and collections in Government of India (GoI): IT Act and its basic tenets; RBI guidelines on Payment Gateway technologies wrt the Payments & Settlements Sysems Act (PSSA); Examples of Electronic Payments and collections in GoI: Government Electronic Payment Gateway (GePG); E-Payments in PFMS, Electronic Tax Collection systems of CBDT & CBEC; Non Tax Receipt Portal of CGA.

Note: the objective of this unit is to acquaint the trainees with the broad legal and regulatory guidelines wrt online financial transactions. The discussion must be around IT act, RBI guidelines and any other associated GoI guidelines on the subject.

Paper Code: 106
Financial Management

UNIT I

1. Nature of Financial Management:

Introduction; Finance and Related Disciplines; Scope of Financial Management; Objectives of Financial Management; and Organization of Finance Function.

2. Basic Financial Concepts:

Introduction; Time Value of Money; Valuation of Long- Term Securities; and Risk and Return.

3. Capital Budgeting: Principles and Techniques: Introduction; Nature of Capital Budgeting; Data Requirement: Identifying Relevant Cash Flows; Evaluation Techniques; and Risk Considerations in Capital Budgeting.

UNIT II

4. Working Capital Management: Introduction; Nature of Working Capital; Trade-off Between Profitability and Risk; and Determining Financing Mix.

5. Planning of Working Capital

Introduction; Need for Working Capital; Determinants of Working Capital; and Computation of Working Capital.

6. Management of Cash and Marketable Securities: Introduction; Motives for holding Cash; Objectives of Cash Management; Factors Determining Cash Needs; Determining Cash Need; Cash Management: Basic Strategies; Cash Management Techniques/Processes; and Marketable Securities.

7. Receivable Management: Introduction; Objectives; Credit Policies; Credit Terms; and collection Policies.

8. Inventory Management: Introduction; Objectives; and Techniques.

UNIT III

9. Concept and Measurement of Cost of Capital: Introduction; Importance and Concept; Measurement of Specific Costs; and Computation of Overall Cost of Capital.

10. Operating, Financial and Combined Leverage: Introduction; Operating Leverage; Financial Leverage; and Combined Leverage.

11. Capital Structure: Introduction; Capital Structure Theories; Net Income Approach; Net Operating Income (NOI) Approach; Modigliani-Miller(MM) Approach; and Traditional Approach.

12. Designing Capital Structure: Introduction; Profitability Aspect; Liquidity Aspect; Control; Leverage Ratios For Other Firms in the Industry; Nature of Industry; Consultation with Investment Bankers and Lenders; Maintaining Maneuverability For Commercial Strategy; Timing of Issue; Characteristics of the Company; and Tax Planning.

UNIT IV

13. Dividend and Valuation: Introduction; Irrelevance of Dividends; Modigliani and Miller (MM) Hypothesis; and Relevance of Dividends.

14. Determinants of Dividend Policy: Introduction; Factors; Bonus Shares (Stock Dividend) and Stock (Share) Splits; and Legal, Procedural and Tax Aspects.

15. Options: Introduction, Option Valuation; and Its use in Financial Decision Making.

Suggested Reading:

1. Khan, M.Y & Jain, P.K.: Basic Financial Management; Tata McGraw Hill, New Delhi, 2008.
2. Khan, M.Y & Jain, P.K.: Financial Management; Tata McGraw Hill, New Delhi, 2008.
3. Pandey, I. M.: Financial Management; Vikas Publishing House, New Delhi, 2005.
4. Chandra, Prasana: Financial Management; Tata McGraw Hill, New Delhi, 2008.
5. Brealey and Meyers: Principles of Corporate Finance; Tata McGraw Hill, New Delhi, 2008.
6. Keown, Martin, Petty and Scott (Jr): Financial Management; Principles and Applications; Prentice Hall of India, New Delhi, 2002.
7. Gitman, L.J: Principles of Managerial Finance; Addison Wasley, 2009.
8. Vanhorne, James C: Financial Management and Policy; Prentice Hall of India, New Delhi, 2002.
9. Kishore Ravi, M: Financial Management; Taxman, 2006.

THIRD TERM

Paper Code: 201
Research Methodology & Report Writing

Objective

This course of research methodology is for imparting the knowledge of different areas of research to the participants. On the basis of this knowledge one can solve any real life problem, which will arise during the service life.

Unit I

1. Problem Definition: Nature and purpose of scientific enquiry, parameters of research, definition of construct and variables, introduction to research, research process, steps in research process

Unit II

2. Research Design: Concepts and Type of research design, design of research on the basis of techniques / methodology – exploratory and descriptive

Descriptive Research – qualitative and quantitative, Quantitative-field studies, field experiments and laboratory experiments

Design of research on the basis of area of research-research in social sciences and physical sciences

3. Sampling and data collection: population and samples, techniques of sampling – random, stratified, systematic and multistage sampling; primary and secondary sources of data, design of questionnaire

Unit III

4. Statistical Hypothesis and Test of significance: Procedure for testing hypothesis, determining levels of significance, type I and II errors, ANOVA : one way, two way, Chi square test and its application, students 't' distribution, non-parametric statistical technique – Chi square test, binomial test, runs test, one sample kolmogorov-smirnov test; Parametric statistical tests – correlation, regression analysis

Unit IV

5. Tabulation and Analysis of Data: Selection of appropriate statistical techniques, interpretation, statistical data analysis, advance techniques in analyzing associative data, report writing.

6. Application of Statistical software in research using SPSS