Diploma Programme in Banking and Finance

Duration : One year

Eligibility : Pass in Higher Secondary (or) 3 year Diploma /

Those who are doing degree programme in colleges

Medium : English only.

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Subject	Title	Total	Passing
Code		Marks	Minimum
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1.2	Banking Law and Practice	100	40
1.3	Central Banking and Monetary Management	100	40
1.4	International Banking and Foreign Exchange	100	40
1.5	Computers and Banking	100	40
	Total	500	200

1.1: MANAGEMENT - PRINCIPLES AND PRACTICES

UNIT 1

Management: Definition – Nature – Scope and Functions – Evolution of Management thought – Contributions of FW Taylor, Henri Fayol, Elton Mayo, Roethilisberger, H.A.Simon and P.F Drucker- Universality of Management - Relevance of management to different types of organization.

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Planning and Decision Making: Nature, importance and planning process – Planning premises – Components of planning as Vision, Mission, Objectives, Goals, Policies, Strategies, Procedures, Methods, Rules, Projects and Budgets – Decision-making – Meaning – Types – Decision-making Process under Conditions of Certainty and Uncertainty.

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Organizing: Nature, purpose and kinds of organization – Structure – Principles and theories of organization – Departmentalization – Span of control – Line and staff functions – Authority and responsibility – Centralization and decentralization – Delegation of authority – Committees – Informal organization.

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Staffing and Directing: General Principles of Staffing- Importance and techniques of Directing- Motivation – Meaning – Importance – Theories: Maslow, Herzberg, McGregor (X&Y), Ouchi (Z), Vroom, Porter-Lawler, McClelland and Adam – Communication: Meaning – Types – Process – Barriers; Leadership: Significance, Types Styles and Theories-Trait, Contingency, Situation, Path-Goal, Tactical, Transactional, Transformational and Grid.

UNIT 5

Coordination and Controlling: Coordination: Concept, Need and techniques; Controlling: Objectives and Process of control – Devices of control – Integrated control – Special control techniques.

UNIT 6

New Perspectives in Management - Strategic alliances - Core competence - Business process reengineering - Total quality management - Six Sigma- Benchmarking- Balanced Score-card.

- 1. Stoner, et-al, *Management*, Prentice Hall, 1989.
- 2. Koontz and O'Donnell, Management: A Systems Approach, McGraw Hill, 1990
- 3. Weihrich and Koontz, Management: A Global Perspective, McGraw Hill, 1988
- 4. Peter F. Drucker, Management, 2008.
- 5. Gene Burton and Manab Thakur, *Management Today: Principles and Practice*, Tata McGraw Hill.
- 6. <u>Ricky W. Griffinhttp://www.amazon.com/Management-Ricky-W-Griffin/dp/0618767959</u> #, *Management*, South-Western College Publications, 2010
- 7. Stephen P. Robbins and Mary Coulter, *Management*, 9th Edition, 2006.

8.	Kaplan (and Norton, ies Thrive in th	The Strateg he New Busine	y-Focused (ess Environn	Organization: nent, HBP, 20	How Bo	alanced	Scorecard

1.2: BANKING LAW AND PRACTICE

UNIT 1

Banking – Definition – Functions of commercial banks – Commercial banks and economic development – Indian commercial banking system – Nationalisation.

UNIT 2

Relationship between banker and customer – Definition of a customer – Debtor and Creditor relationship – Banker as trustee – Obligations of a banker: Obligation to honour cheques, and to maintain secrecy of accounts – Bankers' Rights: Right of lien, Set off, Appropriation and to charge interest and incidental charges.

UNIT 3

Customers' accounts with the banker: NRI deposits – Fixed deposit/unfixed accounts, Savings bank accounts, Recurring deposit accounts and Current accounts – Opening, operation and closing of such accounts – Legal aspects of entries in the pass book.

UNIT 4

Management of bank funds – Factors determining cash reserves of banks – Principles of sound lending – Collection of credit information – Different types of borrowers such as individuals, joint account holders, limited companies, partnership firms, trustees, local authorities and co-operative societies.

UNIT 5

Different types of securities – their suitability or otherwise as banking cover – different methods of charging them – precautionary measures to be taken in respect of advances against goods, documents of title to goods, stock exchange securities, life policies, real estate, FDR and book debts – Documentation in respect of various types of borrowers and securities.

UNIT 6

Negotiable Instruments - Definition - Essential features - Distinguishing features of cheque, bill and promissory note - Holder and holder in due course - Payment in due course.

Endorsment – definition – Kinds of endorsement – Crossing – Types – Paying banker – Points to be considered before passing a cheque for payment – statutory protection - Collecting banker – Duties – Statutory protection.

- 1. M.L. Tannan, Banking Law and Practice in India, Thacker & Co.Ltd., Bombay.
- 2. Varshney and Sundaram, *Banking Theory, Law and Practice*, Sultan Chand & Sons, New Delhi.
- 3. M. Radhaswami and S.V. Vasudevan, *A Textbook of Banking*, S.Chand & Company Ltd., New Delhi.

1.3: CENTRAL BANKING AND MONETARY MANAGEMENT

UNIT 1

Money Market – Meaning – Composition of the money market – Characteristics of developed and underdeveloped money market – The Indian money market.

LIMIT 2

Central Banking – Evolution – Definition – Characteristics of a central bank – Functions of a central bank: Central bank as bank of issue, government's banker, agent and adviser, custodian of cash reserves of the commercial banks, Bank of rediscount and lender of last resort and custodian of the nation's foreign exchange reserves.

UNIT 3

Creation of credit by commercial banks – Central bank as the controller of credit – Quantitative weapons of credit control: Bank Rate, OMOs and VCRR – Qualitative weapons of credit control: Margin requirements, consumer credit regulation, credit rationing, control through directives and moral suasion – Role of central bank in a developing economy.

UNIT 4

Monetary policy – Objectives: Exchange rate stability, Price stability, Neturality of money, Full employment and economic growth – Choosing between conflicting objectives – Efficacy of monetary policy.

UNIT 5

The Reserve Bank of India – Evolution – Organisation: – Central Board, local boards and departments in the central office – RBI as currency authority – RBI as banker to the government – RBI's supervision over commercial banks – Licensing of banks – Regulations relating to capital, Reserves and liquid assets – Inspection of banks – Control over methods of operation and management – Training of banking personnel and banking education – Deposit insurance.

UNIT 6

Monetary policy of the RBI – Objectives – RBI's instruments of general credit control: Bank Rate, Reserve requirements and OMOs, RBI's direct credit regulation – Regulation of non-banking institutions – Credit planning in India.

Promotional functions of the RBI : RBI and rural credit – RBI and industrial finance – RBI and export credit – RBI and exchange control.

- 1. D.M. Mithani, *Money, Banking, International Trade and Public Finance*, Himalaya Publishing House, Bombay
- 2. M.Radhaswami & S.V. Vasudevan, *A Textbook of Banking*, S.Chand, New Delhi, Reserve Bank of India, *RBI: Functions and Working*, RBI Publications.

1.4: INTERNATIONAL BANKING AND FOREIGN EXCHANGE

UNIT 1

Meaning of Foreign Exchange – Administration of foreign exchange – Functions of a foreign exchange department – Foreign currency accounts: Nostro Account and Vostro Account.

UNIT 2

Foreign Exchange Transactions: Spot and forward deals for the purchase of sale of foreign currencies – Selection of buying and selling rates and calculation of appropriate forward rates – Causes of fluctuations in exchange rates – Effects – Liberalised Exchange Rate Mechanism (LERMS) – Full convertibility of currency – Unified Exchange Rate System (UERS) – Full convertibility – SWIFT.

UNIT 3

Exchange Control: Objectives – Methods – Exchange control regulations relating to exports and imports – Foreign Exchange Management Act, 1999 – India's foreign exchange problems – India's recent foreign trade policy.

UNIT 4

Methods of International Payments: Instruments issued by correspondent banks – Foreign traveller's cheques – Foreign inward remittance payment system – Methods of settling debts in international trade – Letter of Credit: Meaning – Features – Mechanism – Types – Advantages – Responsibilities and liabilities of parties – Uniform customs and practice for documentary credits.

UNIT 5

Financing Foreign Trade: Financing exports – Packing credit advances – Purchase and negotiation of bills – Collection of export bills – Advance against bills under collection – Incentives – Financing deferred payment and turnkey projects – Other services to exporters.

UNIT 6

Financing of Imports: Opening a letter of credit – Payment of import bills – Import trust receipt – Deferred payment imports – Loan syndication – EXIM bank – Export Credit Guarantee Corporation of India.

- 1. Chatterjee AK, *Principles of Foreign Exchange*, Vol.I & II, Himalaya Publishing House Mumbai.
- 2. Jeevanandam C, Foreign Exchange Practice, Concepts and Control, Sultan Chand & Sons, New Delhi.
- 3. Andley KK & Mattoo VJ, Foreign Exchange: Principles and Practice, Sultan Chand & Sons, New Delhi.

1.5: COMPUTERS AND BANKING

UNIT 1

Introduction to Computers: What is a computer? Brief history of computers – Early computers – Generations of computers – Uses of computers.

UNIT 2

Data Representation: Simple computer system – Basic concepts of data processing – Binary number system – Octal and hexadecimal – Representation of non-numeric data.

UNIT 3

Hardware: Anatomy of computer – CPU – Main memory – Peripheral controllers – Peripherals.

UNIT 4

Software: Need for software – What is software? Types of software – Software relevant to banking – Systems software – Operating systems – Language translators – Programming languages.

UNIT 5

Computerisation in Banks: Stand alone - Computer system - LAN - Local processing with batch updates - ATMs - Home banking - EFT - MICR.

UNIT 6

Internet and Intranet: Inter branch reconciliation – Security considerations – Accidental damage, Power failures and malicious damage – Operational problems.

- 1. Bajwa K S, Bank Mechanisation, Skylark Publication.
- 2. Srivastava, Computer Applications in Banks, BTC, RBI.
- 3. Sanjay Soni & Vinayak Aggarwal, Computers and Banking, Sultan Chand & Sons

Diploma Programme in Corporate Secretaryship

Duration : One year

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Medium : English only.

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1.2	Securities Laws and Financial Markets	100	40
1.3	Company Law	100	40
1.4	Economic Legislations	100	40
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	Total	500	200

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- 3. Weihrich and Koontz, Management: A Global Perspective, McGraw Hill, 1988
- 4. Peter F. Drucker, Management, 2008.
- 5. Gene Burton and Manab Thakur, *Management Today: Principles and Practice*, Tata McGraw Hill.
- 6. <u>Ricky W. Griffinhttp://www.amazon.com/Management-Ricky-W-Griffin/dp/0618767959 #, Management, South-Western College Publications, 2010</u>
- 7. Stephen P. Robbins and Mary Coulter, *Management*, 9th Edition, 2006.
- 8. Kaplan and Norton, The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment, HBP, 2000.

1.2: SECURITIES LAWS AND FINANCIAL MARKETS

UNIT 1: An Overview of Financial System

Constituents of financial system, significance, development and growth of financial and capital markets in India – Financial reforms and present scenario – Regulatory authorities governing financial and capital market – An introduction, meaning and significance of capital market – Capital market vis-à-vis money market.

UNIT 2: Market Players

Market players – Investors and companies – Securities laws/regulatory framework governing Indian capital market – SEBI – Role and powers – Role and functions of depository – Depository participants – An overview of international capital market.

UNIT 3: Financial Instruments

Capital market instruments – Equity, preference shares, debentures, sweat equity shares, non-voting shares – New instruments of capital market – Pure, hybrid and derivatives, global depository receipts, American depository receipts, money market instruments, treasury bills, commercial bills, certificate of deposits – Credit Rating and Evaluation of Risk – Concepts, scope and significance – Benefits to investors – regulatory framework – Credit rating agencies in India; their processes – Rating methodologies for various instruments – Evaluation of risk.

UNIT 4: Primary Market

Meaning significance and scope – Developments in primary market – Various agencies and institutions involved in primary market – Role of intermediaries – Merchant bankers, registrars, underwriters, bankers to issue, portfolio managers – Debenture – Trustees – Their rules, regulations and code of conduct framed by SEBI.

UNIT 5: Secondary Market

Meaning, significance, functions and scope of secondary market – Functions and significance of stock exchanges; their regulatory framework and control – Secondary market intermediaries – Stock brokers, sub-brokers, advisors, their rules, regulations and code of conduct framed by SEBI, Electronic trading in securities.

UNIT 6: Mutual Funds

Introduction – Definition – Types – Risks involved – performance evaluation – SEBI and RBI regulations for mutual funds.

REFERENCE BOOKS:

- 1. Balakrishnan & Narta S S, Securities Market in India.
- 2. Machiraju H R, Merchant Banking.
- 3. Gordon & Natarajan, Financial Services.
- 4. ICSI Study Material, Securities Laws and Regulation of Financial Markets.

1.3: COMPANY LAW

UNIT-I

Company: Meaning – Characteristics – Types – Corporate personality – Corporate veil – Lifting of corporate veil – Incorporate – Documents to be filed – Preliminary contracts – Promoter – Duties.

UNIT-II

Memorandum of Association: Meaning – Purpose – Contents – Doctrine of ultra vires – Effects – Alteration – Articles of Association: Purpose – Contents – Alteration – Doctrine of Constructive notice and Indoor management – Prospectus: Definition – Registration – Contents – Misrepresentation in prospectus – Consequences.

UNIT-III

Share Capital and Membership of Company: Share – Meaning – Kinds – Allotment of shares – Forfeiture and reissue of shares – Transfer and transmission of shares – Alteration of share capital.

Membership: Types – Methods of creation of membership.

UNIT-IV

Company Management: Director: Meaning – Appointment – Qualification – Disqualification – Vacation – Removal – Powers, duties and liabilities.

UNIT-V

Company Meetings: Requisites of valid meeting – Types – Statutory, AGM, EGM, Board Meetings – Minutes – Chairman: Duties – Resolutions – Kinds of resolutions.

UNIT-VI

Winding up: Meaning – Modes of winding up – Compulsory winding up – Voluntary winding up – Winding up subject to the supervision of the Court – Liquidation – Powers and duties.

TEXT AND REFERENCE BOOKS:

- 1. Kapoor N D, 'Company Law'.
- 2. Sen Gupta B K, 'Company Law', Eastern Law Book House.
- 3. Shah S M, 'Lectures on Company Law', N.M. Tripathi P. Ltd., Mumbai

1.4: ECONOMIC LEGISLATIONS

UNIT 1: Industries (Development And Regulation) Act

Objects and definitions - An overview of current industrial policy; regulatory mechanism - Registration and licensing of industrial undertakings, government agencies, exemption from licensing provisions - Substantial expansion - Investigation - Offences and penalties - Miscellaneous provisions - Small scale and ancillary units - Policy and procedure far setting up SSI - An overview of infrastructure - Fiscal and other support schemes far SSI - Setting up units in FTZ and 100% EOUS - Policy and procedure.

UNIT 2: Competition Law

Definitions – Anti-Competitive agreements – Prohibition of abuse of dominant position – Combinations – Competition Commission of India – Inquiry into certain agreements and dominant position – Inquiry into combination by commission – Procedure of inquiry on complaints u/s 19 – Power to grant interim relief power to award compensation – Execution of orders of commission – Appeal – Duties of Director – General penalties – Competition advocacy.

UNIT 3: Foreign Exchange Management Regulation Act

Objectives and definitions under FEMA - Dealings in foreign exchange - Holding of foreign exchange etc. - Current account transactions, capital account transactions - Export of goods and services realization and repatriation of foreign exchange - Exemptions authorised person - Penalties and enforcement - Compounding of offences - Directorate of enforcement - Appellate Tribunal etc.

UNIT 4: Pollution Control

Water: Water and Environment (Protection) Law - Various Boards and their functions and powers; duties of occupier of specified industries to ensure adherence to standards; offences by companies.

Air Pollution: Concept of sustainable development, Government policy regarding environment - Salient features of the Air (Prevention and Control of; Pollution) Law.

UNIT 5: Environmental Protection

Legal and regulatory framework - procedures for obtaining various environment clearances - Role and functions of Environment Tribunal / Authority - Appearance before Environment Tribunal / Authority - Environment Audit.

UNIT 6: Consumer Protection Act

Genesis of the law - Objects and definitions - Rights of consumers under the Consumer Protection Act - Nature and scope of remedies — Consumer Protection - Appearance before Consumer Dispute Redressal Forums.

REFERENCE BOOKS:

- 1. Gushan & Kapoor, Economic and Other Legislations.
- 2. Taxmann Publication, Corporate Laws.
- 3. ICSI Study Material on Economic Laws.
- 4. Bare Acts.

1.5: SECRETARIAL AND MANAGEMENT AUDIT

UNIT 1

Company Secretary in Practice: Various recognitions and areas of practice – Advisory services rendered – Challenges before the profession – Professional standards and code of conduct – Exploring new horizons.

UNIT 2

Secretarial Audit: Need, objectives and scope – Periodicity and format for secretarial audit report – Appointment, duties and powers of secretarial auditor – Check-list/ Worksheet for secretarial audit under various corporate laws and covenants of loan agreements entered into with financial institutions.

UNIT 3

Search / Status Reports: Preparation of search and status reports from Registrar of Companies records for banks and financial institutions – Scope and importance – Verification of documents relating to charges – Requirements of various financial institutions and other corporate lenders – Secretarial standards – Compliance certificate.

UNIT 4

Securities Audit: Meaning, need and scope – Ensuring proper compliance of provisions relating to issue and transfer of securities – Preventing fraudulent and unfair trade practices including Securities and Exchange Board of India regulations framed thereon – Protecting the interest of investors.

Systems Audit: Nature – Significance and scope of systems audit – Steps involved in conducting systems audit.

UNIT 5

Management Audit: Meaning, nature and scope – Principles and fundamentals of management audit – Appraisal of management methods of performance – Organisational needs for management audit.

UNIT 6

Cost Audit: Nature, objectives and scope – Cost audit distinguished from financial audit and management audit – Cost audit as an aid to management, shareholders and other external agencies and public – Cost audit report.

REFERENCE BOOKS:

- 1. Shanbhogue K V, Filing of Forms and Returns and Application under Company Law, Law Publishing House, Allahabad.
- 2. Datta C R, Company Directors, Eastern Law Home, Calcutta.
- 3. Dr. Balachandran V and Ravichandran K S, *Secretarial and Management Audit*, Bharat Law House, New Delhi.
- 4. Vashist and Saxena, Cost and Management Audit.
- 5. Ramanathan AR, Management Audit.
- 6. ICSI Publications, Secretarial and Management Audit.

Diploma Programme in Project Management

Duration : One year

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- 7. Stephen P. Robbins and Mary Coulter, Management, 9th Edition, 2006.
- 8. Kaplan <u>and Norton</u>, *The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*, HBP, 2000.

1.2: PROJECT FORMULATION AND APPRAISAL

UNIT 1

Economic Planning and Development: Need in the globalisation era – Project and sectoral development: Agricultural, industrial, infrastructural, educational and social welfare sectors.

UNIT 2

Conceptual Framework of Project Management: Project – Meaning and definition – Features of projects – Classification – Types – Overseas projects – Turnkey projects and its significance – Project life cycle: Significance – Stages – Approaches of privatisation projects: BOOM, BOT, BOO, BOOT.

UNIT 3

Project Identification: Scouting and screening of project ideas – Basic criteria for selecting the best project opportunities – Project identification for an existing company.

UNIT 4

Project Formulation: Meaning – Stages in project formulation – Need for feasibility studies – Technical and organizational aspects – Economic and commercial aspects – Project report preparation – Steps in project report preparation.

UNIT 5

Project Appraisal: Market appraisal – Appraisal of managerial and technical aspects – Financial and commercial appraisal – Economic analysis: Economies of scale – Employment generation – Social cost ad benefit analysis – Contribution to Government Revenue – Political stability – Priority and evaluation of international competitiveness.

UNIT 6

Feasibility Studies: Need – Components – Feasibility report preparation – Project Report Preparation: Need for detailed report – Contents of ideal project report.

- 1. Choudhry S, *Project Management*.
- 2. Goel B B, Project Management: A Development Perspective.
- 3. Turnkey Plants and Project Engineering Services, ITC Publication, Geneva.

1.3: PROJECT SUPPORT SYSTEM

UNIT 1

Project Support Facilities: Need for support system – Nature and types of project supporting facilities – Incentives and subsidies – Role of Governmental Departments: Department of Planning and Programme – GOI – Department of Planning in the State Government – Department of Science and Technology – Indian Investment Centre.

UNIT 2

Marketing support – Marketing plan – Marketing process – Market positioning – Marketing intelligence – Institutional support: NSIC, STC, MMTC, State Small Industries Corporation – Export Trade Promotion Councils – Commodity Boards, KVIC.

UNIT 3

Technical Support: Know-how designing and development – Process designing – Selection of machinery and equipment – Setting quality standards – Appropriate technology – Licensing and registration – Pollution and effluent treatment – Institutional support: Department of Science and Technology, CSIR, ITCOT, SISI, STED & Steps, Productivity Councils, Project and Equipment Corporation of India.

UNIT 4

Financial Support – Estimating the project cost – Designing judicious financing plan – Means of financing – Institutional support: Central and State level development banks: IDBI, NABARD, SIDBI, SFCS, EXIM Banks – Commercial Banks – Leasing companies and investment institutions – Role of international financial agencies: World Bank, ADB and IBRD.

UNIT 5

Management, Consultancy and Training Support: Advisory services such as legal, environmental, managerial and human aspects – Awareness training, motivation training and management training.

UNIT 6

Institutional Support: District Industries Centre, Small Industries Service Institute – Small Industry Extension Training Institute – SIDCO, FASSI, National Science and Technology – Entrepreneurship Development Board – Management consultancy organizations: Centre for Entrepreneurship Development – Non-Governmental Organisations.

- 1. Machiraju H R, Project Finance.
- 2. Pahwa H P S, Project Financing: Policies, Procedures and Practice.
- 3. Vasant Desai, Dynamics of Entrepreneurial Development and Management.

1.4: PROJECT CONTROL SYSTEM

UNIT 1

Project Decision-making: Concept and design – Types of decision – Approaches to decision-making – Decision systems – Information needs of different decision systems.

UNIT 2.

Multiple Projects and Constraints: Methods of ranking – Mathematical programming approach – Linear programming model – Goal programming model.

Queuing models for decision-making – Elements of different queuing models – Uses and limitations.

UNIT 3

Risk Analysis: Measures of risk – Mathematical analysis – Sensitivity analysis – Simulation analysis – Decision Tree analysis – Selection of project.

Risk Analysis in Practice: Portfolio theory approach – CAPM approach – Little Mirrlees approach – Applied utility theory approach – Abandonment value analysis.

UNIT 4

Network Analysis and Decision-making: PERT and CPM techniques – Nature and uses thereof in decision-making – Project Scheduling: Crash coursing of a project – Resource levelling.

UNIT 5

Marginal costing and Cost volume profit anlaysis – Pricing decisions and profit planning – Brea-even analysis – Application of differential costing in project decision.

UNIT 6

Project monitoring and management information system – Role of computers – Resource monitoring and control.

- 1. Rustom S Davar, Executive Decision-making: Modern concepts and techniques.
- 2. Srivastava J K et-al, Quantitative Techniques for Managerial Decision-making.
- 3. Pilcher Roy, Appraisal and Control of Project Cost.
- 4. Pitale R L, Project Appraisal Technique.
- 5. Chitale V P, Project Viability in Inflationary Conditions: A Study of Capital Cost and Project Viability.

1.5: PROJET RISK MANAGEMENT

UNIT 1

Risk Management: Concept and objectives – Definition of risk and uncertainty – Classification of risk: Pure and speculative risks – Cost of risk – Risk management process – Contributions of risk management to business, society and family.

UNIT 2

Risk Management in Business: Risk vis-à-vis size and types of business – Scope of risk manager's duties – Risk management corporate policy and strategy.

UNIT 3

Risk Identification and Measurement: Identification methods: Checklist, questionnaire, financial statement analysis, flow-chart, on-site inspection, record of losses, threat analysis, event analysis, safety audit – Measurement methods: Frequency and severity measures – Probability approach.

UNIT 4

Risk Exposure Losses: Property loss exposures – Types – Net income loss exposures – Valuation of potential loss – Decrease in income – Increase in expenses – Liability loss exposure: Civil liabilities of business houses: Form contracts, omissions, commissions, bankruptcy, etc.

UNIT 5

Risk Management Techniques: Avoidance – Loss control – Separation – Combination – Transfer.

Risk Retention: Concept and need – Methods of financing risk retention – Insurance – Reinsurance.

UNIT 6

Approaches to selecting risk management tools: Quantitative approaches: Loss method – Expected loss method – Worry method – Critical probability method – Risk adjusted capital budgeting.

- 1. ArthurWilliams C,Richard M Heins, Risk Management and Insurance, McGraw Hill.
- 2. Ahearn J L and Pritehett S T, Risk Insurance, West Publishing Co.
- 3. Lalley P Edward, *Corporate Uncertainty and Risk Management*, New York Risk Management Society Publication.
- 4. Insurance Institute of India: Study Materials.

Diploma Programme in Hospital Management

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Staffing and Directing: General Principles of Staffing- Importance and techniques of Directing- Motivation – Meaning – Importance – Theories: Maslow, Herzberg, McGregor (X&Y), Ouchi (Z), Vroom, Porter-Lawler, McClelland and Adam – Communication: Meaning – Types – Process – Barriers; Leadership: Significance, Types Styles and Theories- Trait, Contingency, Situation, Path-Goal, Tactical, Transactional, Transformational and Grid.

UNIT 5

Coordination and Controlling: Coordination: Concept, Need and techniques; Controlling: Objectives and Process of control – Devices of control – Integrated control – Special control techniques.

UNIT 6

New Perspectives in Management - Strategic alliances - Core competence - Business process reengineering - Total quality management - Six Sigma- Benchmarking- Balanced Score-card.

- 1. Stoner, et-al, *Management*, Prentice Hall, 1989.
- 2. Koontz and O'Donnell, Management: A Systems Approach, McGraw Hill, 1990
- 3. Weihrich and Koontz, Management: A Global Perspective, McGraw Hill, 1988
- 4. Peter F. Drucker, Management, 2008.
- 5. Gene Burton and Manab Thakur, *Management Today: Principles and Practice*, Tata McGraw Hill.
- 6. <u>Ricky W. Griffinhttp://www.amazon.com/Management-Ricky-W-Griffin/dp/0618767959 #, Management, South-Western College Publications, 2010</u>
- 7. Stephen P. Robbins and Mary Coulter, *Management*, 9th Edition, 2006.
- 8. Kaplan <u>and Norton</u>, The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment, HBP, 2000.

1.2: PRINCIPLES OF HOSPITAL MANAGEMENT

UNIT-1

Hospital Management - Meaning - Importance - Hospital Planning - Meaning - Rationale - Types of plans - Planning process - Steps in hospital planning Process - MBO in hospitals - Need - Process - Advantages and limitations - Decision-making - Meaning and importance - Types - Process.

UNIT- 2

Hospital Organisation - Meaning - structures - Organisation Chart - Delegation Vs Decentralisation - Departmentation - Organisational competence - Core competence - Strategic alliances.

UNIT - 3

Direction – Meaning and significance – Principles of effective direction – Supervision – Leadership in hospitals – Meaning – Scope – Importance – Styles – Qualities of successful leader.

UNIT - 4

Motivation in Hospitals – Meaning – Types – Motivational theories – Their impact on hospital management – Motivating the employees of hospitals.

UNIT - 5

Hospital Communications – Types – Barriers – Methods to overcome barriers – Principles of effective communication – Coordination – Importance of coordination in hospitals – Techniques of coordination.

UNIT - 6

New Perspectives in Management: Business Process Outsourcing – Business Process Reengineering – Enterprise Resource Planning – Supply Chain Management.

REFERENCES:

1. Essentials of Management : Koontz and O' Donnel

2. Management : Griffin

1.3: HOSPITAL PLANNING AND DESIGNING

UNIT 1:

Introduction: Introduction to Hospital - Classification - Changing role of hospitals - Role of hospital administration - Hospital as a system - Hospital and Community.

UNIT 2

Planning: Principles of planning – egionalisation – Hospital planning team – Planning process – Size of the hospital – Site selection – Hospital architect – Architech report – Equipping a hospital – Interiors and Graphics – Construction and Commissioning.

UNIT 3

Technical Analysis: Assessment the extent need for the hospital services – Demand and need – Factors influencing hospital utilisation – Bed planning –Land requirements – Project cost – Space requirements – Hospital drawings and documents.

UNIT 4

Hospital Design : Building requirement – Entrance and ambulatory zone – Diagnostic zone – Intermediate zone – Critical zone – Service zone – Administrative zone.

UNIT 5

Facilities Planning : Transport – Communication –Food services – Mortuary - Information system – Minor facilities – others.

UNIT 6

Standard in Hospital : Voluntary and mandatory standards – General standards –Mechanical standards – Electrical standards – Standard for centralised medical gas system – Standards Biomedical waste.

- 1. G.D. Kunders, Designing for Total Quality in Health Care.
- 2. Ervin Putseps, Modern Hospital
- 3. Macaulary HMC and Liewelyn Davis, Hospital Planning and Administration
- 4. Dr. Ashok Sahni Hospital Planning.
- 5. Frank E-Fischer How to Achieve Effective Communication
- 6. BM Sakharkar Principles of Hospital Administration and Planning

1.4: MATERIALS MANAGEMENT IN HOSPITALS

UNIT 1

Materials Management: Concept – Objectives – Importance – Material planning – Objectives – Integrated approach to material planning and control – Relevance of materials management to hospitals.

UNIT 2

Purchasing – Types – Significance of purchasing policy – Principles of scientific purchasing – Factors of purchasing – Essence of sound purchasing policy – Purchasing methods – Purchasing procedure.

UNIT 3

Imports of equipments and medicines for hospitals – Documents – Procedure.

UNIT 4

Material Handling: Importance – Principles – Benefits – Material handling equipments – Selection of material handling equipments.

UNIT 5

Stores Management: Objectives – Functions – Stores location – Store accounting and records – Stock verification.

UNIT 6

Inventory Management: Concept – Importance – Techniques.

REFERENCE:

1. Hospital Medical International Pvt. Ltd., Hospital Administration, Office Journal of I.H.A

1.5: HOSPITAL RECORDS MANAGEMENT

UNIT I

History & Significance of Medical Records: History – Meaning – Purpose – Development and Content – Format – Uses & Importance.

UNIT II

Medical Records Department: Functions – Objectives – Assembling – Filing - Filing System – Coding – Indexing – Deficiency Check – Retrieval – Retention - Storage

UNIT III

Other Services: Outpatient – Inpatient – Admission – Laboratory – Radiology – Pharmacy – Control of Movement of Records – Statistics.

UNIT IV

Medical Forms & Registers: Forms: Meaning – Standardization – Availability – Development – Design – Control – Inventory – Uses – Basic Forms, Registers: Hospital Administrative Records – Nurses Records.

UNIT V

Computerisation and Quality Control in Medical Records: Introduction – Administrative Application – Patient Related Application – Criteria – Computerisation of Medical Records – Uses – Inactive Medical Records. Quality Control: Quantitative Analysis, Qualitative Analysis - Medical Audit – Standards – Responsibility – Records in Infection Control – General Instructions.

UNIT VI

Legal Aspects of Medical Records: Introduction – Personal – Impersonal – Consumer Protection Act – Documentation Medical Audit Committee – Tools – Medicolegal Cases – Custody – Disposal – Consent – Release of Information – Code of Ethics – Purpose of Confidential Relationship – Law of Evidence – Responsibility.

- 1. Managing a Modern Hospital, A. V. Srinivasan, Response Books, I Ed.
- 2. Principles of Hospital Administration and Planning, BM Sakharkar, Jaypee Brothers, I Ed
- 3. Hospital and Health Service Administration, Syed Amin Tabish, Oxford University Press, I Ed.
- 4. Medical Records Organisation & Management, G. D. Mogli, Jaypee Brothers.

Diploma Programme in Export Management

Duration : One year

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Medium : English only.

COURSE OF STUDY & SCHEME OF EXAMINATIONS

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1.2	International Marketing	100	40
1.3	Export Management and Documentation	100	40
1.4	International Marketing Logistics	100	40
1.5	Foreign Exchange Management	100	40
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1.1: MANAGEMENT – PRINCIPLES AND PRACTICES

UNIT 1

Management: Definition – Nature – Scope and Functions – Evolution of Management thought – Contributions of FW Taylor, Henri Fayol, Elton Mayo, Roethilisberger, H.A.Simon and P.F Drucker- Universality of Management - Relevance of management to different types of organization.

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- 5. Gene Burton and Manab Thakur, *Management Today: Principles and Practice*, Tata McGraw Hill.
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- 8. Kaplan and Norton, The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment, HBP, 2000.

1.2: INTERNATIONAL MARKETING

UNIT 1

Marketing Concept and Functions – Marketing Environment and system – International dimensions of Marketing – International Marketing Approaches: Ethno, Poly, Regio and Geo Centric approaches.

UNIT 2

Consumer Behaviour – Theories and Models – Consumer Behaviour in the international context – Consumer Decision making process.

UNIT 3

Marketing Mix – Product Mix – Product strategies – New Product Planning and Development – Market segmentation – Product positioning – Product Life Cycle concept in global market context – Product standardisation Vs product adaptation – National vs International Product – Marketing of services – Brand decisions – Packaging.

UNIT 4

Price mix – Pricing decisions – pricing strategies – dumping – internatioal transfer pricing – Countertrade – price quotation – financing and payment.

UNIT 5

Promotion mix – Personal selling – publicity – sales promotion – Overseas product exhibitions & trade fairs – Advertising – Advertising media – International Advertising.

UNIT 6

Distribution mix – Direct and indirect channels – Types of intermediaries in the international market – Channel Development – Channel Adaptation – Channel decisions.

International Marketing Information System and Research.

- 1. International Marketing, Analysis & Strategy: Sak Onkvisit & John J Shaw
- 2. Global Marketing Management: Keegan
- 3. Marketing Analysis, Planning & Control: Philip Kotler
- 4. Fundamentals of Marketing: Stanton
- 5. International Marketing: Philip R. Catero
- 6. International Marketing: Kirpalani.V.H.
- 7. Marketing, an Environmental approach: Kerr, John.R. & others.
- 8. Marketing in the International Environment : Edward Cundiff & M.T. Hilger.

1.3: EXPORT MANAGEMENT AND DOCUMENTATION

UNIT 1

Export Documentation – Framework – Standardized Pre-shipment Export Documents – Commercial and Regulatory Documents.

Export credit instruments and Procedures: Letters of credit and types – Documents required for export credit.

UNIT 2

Shipment of Export cargo: By sea, by air and by post – Procedure – and Documents required for shipment of cargo – Multimodel transport – Procedure and documentation.

UNIT 3

Export incentives under EXIM Policy – EPCG scheme – Duty drawback – Central excise and sales tax exemption – exemption of export profit from Income Tax – Procedure for availing export incentives – Documents required fir export incentives – Direction of India's exports: Thrust Products and destinations.

UNIT 4

Cargo insurance – Marine Insurance – Institute cargo clauses – specific Policy – open policy – procedure for cargo insurance – Procedure for marine insurance claims – Necessary documents for filing claim.

UNIT 5

Export credit insurance – services of Export Credit and Guarantee Corporation in export credit insurance – Specific Policy and Small Exporters Policy – Guarantees – Procedure for availing credit insurance and necessary documents.

UNIT 6

Role and functions of Export Promotion Councils, Commodity Boards, Directorate of commercial Intelligence and Statistics, Indian Trade Promotion Organization, Indian Institute of Foreign Trade and Director General of Foreign Trade — Role of Export Processing Zones, Special Economic zones and 100% Export Oriented units.

Central Excise and Customs clearances of export cargo – Procedure and documents.

- 1. IIFT Background Papers on "Export Procedures & Documentation".
- 2. Exporters Encyclopaedia Dun & Bradstrect.N.Y.
- 3. Indian Carriage of Goods by Air Act
- 4. Foreign Exchange Manual, RBI
- 5. Quality Control and Pre-shipment Inspection for exports, S.Ramakrishna et-al. Fxim Bank Publications.

1.4: INTERNATIONAL MARKETING LOGISTICS

UNIT 1

Marketing Logistics System: Concept, objective and scope – importance and relevance to export marketing management – supply chain management.

UNIT 2

Transportation: In-land and Ocean transportation – characteristics of shipping transport – liner operations and tramp operations – Conference system – freight structure and practice – Multimodel Transport system – MTD Vs CTD.

UNIT 3

Role of intermediaries – Functions and services of clearing and forwarding agents, freight brokers, steveodres, shipping agents and surveyors.

UNIT 4

Port – Types of Port – Structural and cargo handling facilities – Warehousing and storage inports – Demurrage – loading and unloading in warehouses.

UNIT 5

Chartering principles and practices – Arrangement for shipment of Cargo – organisation and functions of Tranchart.

UNIT 6

Technological developments in ocean transportation – containerisation – concept – Hiuse stuffing – terminal stuffing – container freight – inland container depots – Problems and prospects.

International Air Transport – international set up for air transport – IATA TACT rules – Air freight rates – Air transport problems and prospects.

REFERENCES:

1. Shipping Cartels: Daniel Marx Jr.

2. Chartering Practice: J. Bes

3. Physical Distribution: Magee

4. Dictionary of Shipping & Chartering Terms: IIFT

1.5: FOREIGN EXCHANGE MANAGEMENT

UNIT 1

Foreign Exchange: Concept and Significance – Foreign change Rate: Direct and indirect quotations – Interbank and Merchant rates – Spot rates and forward rates – T.T. rates – Cross rates; Computation – Foreign exchange markets – Organisation of forex market.

UNIT 2

Determination of Exchange Rate: Purchasing Power Parity theory — Interest rate parity theory — Flow model — Asset market model — Forecasting of exchange rates — Concepts of Nominal Effective Exchange Rate and Real effective Exchange rate.

UNIT 3

Forward exchange contracts: Types – Forward exchange rate computation – Factors affecting forward rates – Extension and cancellation of forward contracts – option contracts: Types and mechanism.

UNIT 4

Foreign exchange risk management: Transaction exposure risk: Internal Strategies – Risk shifting, Risk sharing – Exposure netting and offsetting – External Strategies: Foreign currency options – Forward and money market hedge – Currency Swaps – Interest Rate Swaps. Economic Exposure risk – Inflating and exchange risk – Economic consequences of Exchange rate changes – managing economic exposure risk.

UNIT 5

Exchange management in India: Fixed and fling rates — Rupee convertibility — NOSTRO, VOSTRO and LORO Accounts — Exchange control measures: Need and Forms and relevance — Foreign Exchange Reserves of India: Trend, composition and management — Impact on exchange Rate — Monetary and fiscal policy initiatives for exchange rate management.

- 1. Multinational Financial Management : Alan C Shapiro
- 2. ABC of Foreign Exchange: Clare G. Gump
- 3. Guide to Foreign Exchange Regulations: Krishnamoorthy.S
- 4. Principles of Foreign Exchange: Chatterjee.A.K.
- 5. Foreign Exchange Practice, Concepts and control: Jeevanadam.N.S.
- 6. Foreign Exchange Management : Rajwadi
- 7. Rupee Convertibility: Bibek Debroi

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1.2: HUMAN RESOURCE MANAGEMENT

UNIT 1:

Introduction to Human Resource Management: Definition – Objectives and functions – Role and structure of Human Resource Function in organizations- Challenges in Human Resource Management -- Approaches to Human Resource Management

UNIT 2

Human Resource Planning: Personnel Policy - Characteristics — HR Planning: Need, Scope and Process — Job analysis — Job description — Job specification - Succession Planning.

UNIT 3

Recruitment and Selection Process: Sources of recruitment- internal Vs. External; Domestic *Vs.* Global sources- Selection process- Placement and Induction – Training and Development: Need Assessment- Training methods for Operatives and Supervisors - Executive development: Need and Programs.

UNIT 4

Employee Compensation and Retention: Wages and Salary Administration — Bonus — Incentives — Fringe Benefits —Flexi systems— Sweat Equity- Job evaluation systems —Promotion — Demotions — Transfers- Labour Attrition: Causes and Consequences- Employee Retention: Need and Programs.

UNIT 5

Employee Welfare, Separation: Welfare and safety – Accident prevention – Employee Grievances and their Redressal – Industrial Relations – Trade Unions – Multiplicity of Trade Unions – Workers Participation in Management- Separation: Need and Methods.

UNIT 6

Human Resource Information System- Personnel Records/ Reports- e-Record on Employees – Personnel research and personnel audit – Objectives – Scope and importance.

- 1. Mathis and Jackson, *Human Resource Management*, South-Western College, 2004.
- 2. Nkomo, Fottler and McAfee, *Human Resource Management*, South-Western College, 2007.
- 3. R. Wayne Mondy, *Human Resource Management*, Prentice Hall, 2011.
- 4. Venkataraman & Srivastava, Personnel Management & Human Resources
- 5. Arun Monappa, Industrial Relations
- 6. Yodder & Standohar, Personnel Management & Industrial Relations
- 7. Edwin B. Flippo, Personnel Management, McGraw-Hill, 1984
- 8. Pigors and Myers, Personnel Administration
- 9. R.S. Dwivedi, Manpower Management
- 10. Lynton & Pareek, *Training and Development*, Vistaar Publications, 1990.

1.3: INDUSTRIAL RELATIONS MANAGEMENT

UNIT 1

Constitution of India – Salient features – Fundamental rights and directive principles of State policy – Labour movement – Concept of labour movement and Union Organization – Trade union movement and various phases of the movement – Trade unions and economic development.

UNIT 2

Development of Trade Unionism in India – Historical retrospect – Central organization of workers in India – Role of internal trade union – Inter and intra union rivalries – Union recognition – International Labour Movement: ICFTU – WFTU – ILO – History, objective and functions – Convention and recommendations.

UNIT 3

Concept of Industrial Relations – Social obligations of industry – Role of government employers and the unions in industrial relations – Industrial relations machinery – Joint consultation – Works committee – Negotiation: Types of Negotiations – Conciliations – Adjudication, voluntary arbitration – Workers participation in industry – Grievance procedure.

UNIT 4

Process of collective bargaining – Problems and prospects – Bipartism in agreements – Code of conduct and code of discipline – Wage boards – Reports of wage boards – Management of strikes and lockouts.

UNIT 5

Employee safety programme – Types of safety organization – Safety committee – Ergonomics – Damage control and system, safety.

UNIT 6

Employee communication – House journals – Notice boards suggestion schemes – upward communication, personnel counselling and mental health – educational and social development – modern trends – employee education.

- 1. Bhagoliwal T N, Personnel Management and Industrial Relations, Agra Publishers, Agra.
- 2. Arun Monappa, Industrial Relations, Tata McGraw Hill, New Delhi.
- 3. Michael V P,HRM and Human Relations, Himalaya Book House, Mumbai.

1.4: TRAINING AND DEVELOPMENT

UNIT 1

Training: Meaning – Definition – Need – Objectives – Difference among education, training and development – Levels of Training: Individual, operational and organizational levels.

UNIT 2

Training Organisation: Need assessment of Training- Organisational structure of training organizations – Training in manufacturing and service organizations – Duties and responsibilities of training managers – Selection of trainers: Internal and external.

UNIT 3

Employees Training: Meaning – Need – Areas of training: Knowledge, skill, attitude – Methods of training: On the job – Off the job.

UNIT 4

Executive Development Programmes: Meaning – Need – Methods of evaluation of effectiveness of training and development programmes.

UNIT 5

Evaluation of Training: Evaluation of training and development programs – Concept of return on investment and cost benefit analysis – Current practices in assessing training and development.

UNIT 6

Training and Development in India: Government policy on training – Training Institutes in India – Management Associations – Development programmes in Public and Private Sector organization.

- 1. Sikula A F, *Personnel Administration and Human Resource Development*, John Wiley and Sons, New York.
- 2. Ahmed Abad, *Management and Organisational Development*, Rachana Prakashan, New Delhi.
- 3. Memoria C B, *Personnel Management*, Himalaya Publishing House, Mumbai.
- 4. Larney M C & William J, *Management Training: Cases and Principles*, Richad D Irwin, Illinois.
- 5. Rudra Baswaraj, *Personnel Administration Practice in India*, Vaikunta Lal Mehta Inst. of Co-op. Management, Pune.

1.5. LABOUR AND INDUSTRIAL LAWS

UNIT 1

Factories Act, 1948: Provisions relating to health, safety, welfare, working hours, leave etc. of workers approval – Licensing and registration of factories – Manager and occupier – Their obligations under the Act – Powers of the authorities under the Act – Penalty provisions.

UNIT 2: Workmen's Compensation Act, 1923

Employer's liability for compensation – Amount of compensation method of calculating wages; review; distribution of compensation – Notice and claims – Statements regarding facts, accidents – Medical examination – Remedies of employer against stranger – Returns as to compensation – Commission for workmen's compensation.

UNIT 3: Industrial Dispute Act, 1947

Industrial disputes – Authorities of settlement of industrial disputes – Reference of industrial disputes – Procedures; power and duties of authorities – settlement and strikes – Lock-outs – Lay-off – Retrenchment – Transfer and Closure – Unfair labour practices – Miscellaneous provision offences by companies – Conditions of service to remain unchanged under certain circumstances, etc.

UNIT 4: Employee's State Insurance Act, 1948

Registration of Factories and Establishments – The Employee's State Insurance Corporation – Standing Committee and Medical Benefit Council – Provisions relating to contributions – Inspectors – Their functions and disputes and claims – Offences and penalties – Miscellaneous provisions.

UNIT 5

Employee's Provident Fund and Miscellaneous Provisions Act,1952: Employee Provident Fund and other schemes – Determination and recovery of money due from employer – Appointment of Inspectors and their duties – Provisions relating to transfer of accounts and liability in case of transfer of establishment – Exemption under the Act – Court's power under the Act.

Payment of Gratuity Act, 1972: Payment of Gratuity – Exemption – Nomination – Determination and recovery of the amount of gratuity.

Payment of Wages Act, 1936: Object – Definitions – Rules for payment of wages – Deductions from wages – Maintenance of registers and records.

UNIT 6

Trade Union Act, 1926: Registration of Trade Unions – Rights and liabilities of trade unions – Procedure – Penalties.

Payment of Bonus Act, 1965: Computation of available surplus calculation of direct tax payable by the employer – Eligibility for bonus and payment of bonus – Deduction from bonus payable – Adjustment of customary or interim bonus payable – Set on and set off allocable surplus – Presumption about accuracy of balance sheet and profit and loss account.

REFERENCE BOOKS:

- 1. Kapoor N D, Industrial Law.
- 2. Shukla M C, Mercantile Law.
- 3. Kalra and Batra, *Industrial Law*.

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1.2 MODERN LOGISTICS OPERATIONS

UNIT 1:

Logistics as a Support/Interface/Enabler of Production function: Logistics as a Support function of Procurement, Vendor Facilitation and Production- Logistics as interface function of Demand Forecasting, Global procurement, Tracking inward shipments, In-plant distribution and Storage Planning- Logistics as an enabler of Just-in-Time (JIT), Kanban (A scheduling system for lean inventory), Vendor Managed Inventory (VMI) for Vendors and the firm.

UNIT 2:

Logistics as a Support/Interface/Enabler of Marketing function: Logistics as a Support function of Order Fulfillment, Assembling & Labeling from Multi-storage points, Consignment convergence/divergence and Delivery- Logistics as an interface of Market forecasting, Stock level management, invoice or sales documentation, picking materials, consolidation, packing, marking, preparing outbound documentation and shipping out by loading into containers- customer facilitation tracking out-bound shipments.

UNIT 3:

EXIM Logistics: Special Aspects of Export logistics: Picking, Packing, Vessel Booking [Less-than Container Load(LCL) / Full Container Load (FCL)], Customs, Documentation, Shipment, Delivery to distribution centers, distributors and lastly the retail outlets- Import Logistics: Documents Collection- Valuing-Bonded Warehousing- Customs Formalities- Clearing- Distribution to Units- Security & Insurance- Multimodal Transport- UN International convention on MT of Goods- Terminal Networks: Types and Roles.

UNIT 4:

Logistics Service Providers: 3PL/4PL Services- Differences between 3PL & 4PL: 4PL Common Services for 3PL/4PL: Invoice management, call centers, warehouse/distribution facilities - Carrier management- 4PL Specialties: Implementation Center: Business process analysis/scoping, Development of all activities into an open systems framework- Product/Skill Centers: Supply chain engineering –4PL Value Added services: Knowledge Transfer, Business Development and Functional Support.

UNIT 5:

Special Logistics: Inter and Multimodal Transport- Industrial Projects Transportation- Trade Fairs and Events Transportation- International Supply Chain Management- Consolidation and Groupage- Logistics of Time Perishable - Logistics of Quality Perishable- Life cycle logistics for Projects/Products- GS1 System of world-wide supply-chain standards system.

UNIT 6:

Logistics Information Systems: – Need, Characteristics and Design- E-Logistics – Structure and Operation- Logistics Resource Management- Automatic Identification Technologies- IT System Center: Pure IT selection for design and implementation/connectivity- Warehouse Simulation- Reverse Logistics.

- 1. Martin Christopher, Logistics and Supply Chain Management, Prentice Hall, 1998
- 2. John J. Coyle, C., Supply Chain Management, South Western Cengage, 2010
- 3. F. Robert Jacobs, Operations and Supply Chain Management, McGraw Hill, 2010
- 4. Bozarth & Handfield, Introduction to Operations & Supply Chain Management, Prentice Hall, 2005
- 5. James Martin, Lean Six Sigma for Supply Chain Management, McGraw Hill, 2006.
- 6. Ronald H. Ballou, Business Logistics: Supply Chain Management, Prentice Hall, 2003.
- 7. Bowersox, Closs and Cooper, Supply Chain Logistics Management, Mcgraw-Hill, 2009
- 8. Paul R. MurphyJr. and Donald Wood, Contemporary Logistics, Prentice Hall, 2010.
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- 10. Alan E. Branch, Global Supply Chain Management and International Logistics, Routeledge, 2009
- 11. Levi, Kaminsky & Levi, Managing the Supply Chain: The Definitive Guide, Mcgraw-Hill, 2003.

1.3 - PACKING AND PACKAGING MANAGEMENT

Unit I:

Packing and Packaging: Meaning, Functions and Essentials of Packing- Packaging: Meaning, Functions and Essentials of Packaging- Difference between Packing and Packaging- Packing for Storage-Packing for Overseas Shipment- Packing for Inland-Transportation- Packaging for Product content Protection, Information, Promotion and comfort Handling- Test of packaging: Mechanical, Climatic & Lab test-International Care labeling code - Packaging cost.

Unit 2:

Packaging Types: Primary, Secondary and Tertiary- Requirements of Consumer Packaging, Channel Member Packaging and Transport Packaging - Shrink packaging - Identification codes, <u>bar codes</u>, and electronic data interchange (<u>EDI</u>)- Universal Product Code- GS1 Standards- package labels- Symbols used on packages and labels- Heavy, Medium and small Packaging- Active packaging-Child-resistant packaging- Pilfer/Tamper Evident/Proof Packaging- Product-Packaging compatibility- Pharma Packaging- Food Packaging- Electronic goods Packaging- FMCG packaging- Heavy Engineering Goods/Equipment Packaging.

Unit 3:

Packing Considerations: Protection, Convenience, Environment, Use/Re-use- Cost and Competition – Packing as a systems approach to Logistics- Transport/Storage Requirements- Physical, Chemical Environmental, Biological Nature of the Products- Packing as Protection Against Hazards- Package design considerations: Structural design, marketing, shelf life, quality assurance, logistics, legal, regulatory, graphic design, end-use, environmental factors- Packaging for Marketing and Visual Appeal- Biodegradation - Recycling: Glass, Plastic & Paper- Reuse- Environmental engineering - Industrial ecology - Sustainable packaging - Waste management.

Unit 4:

Packaging/Packing Materials & Components: Various Materials/Metals made Can, Bottle, Jar, Box, Barrel, Carton, Crate, Drum, Envelope, Keg, Bag, Blister pack, Pail, Pouch, Sachet, Skin-pack and Tube-Flexible, Folding, Insulated, Corrugated Packing Materials- Packing materials: Paper, Wood, Adhesive, Aluminium foil, Cushioning-stuff, Packaging gas, Pallet, Paperboard, Plastic wrap, Shrink wrap, Screw cap, Slip sheet- Security printing-Strapping • Stretch wrap • Time temperature indicator- Tinplate.

Unit 5:

Packaging Economics: Packaging Cost Vs Product cost- Cost Reduction in Packaging- Packing for Inventory Control, Value Analysis- Packing and Value Engineering- Packaging Laws- Consumer Protection in Food Packaging, Marking and Labeling, Eco-friendly Packaging for Exports- Scientific Packaging- Standardization in Packaging.

Unit 6:

Packaging Industry Process and Machining: Packaging Demands of Consumer goods Industry-Packaging Demands of Industrial Users- Technology Trends in Packaging Industry – Aseptic processing - Authentication - Automatic identification and data capture - Blow fill seal - Blow moulding - Containerization - Electronic article surveillance - Graphic Design - Induction sealing - Plastic welding - Printing - Quality assurance -Radio-frequency identification - Track and trace - Vacuum forming- Verification and validation - Barcode printer - Barcode reader - Bottling line - Carton machine - Check weigher - Conveyor system - Heat gun - Heat sealer - Industrial robot- Injection molding machine - Logistics automation.

REFERENCES

- 1. Soroka, W, 'Fundamentals of Packaging Technology', IPP, 1995
- 2. Calver, G., 'What Is Packaging Design', Rotovision, 2003.
- 3. Scott Boylstonhttp://www.amazon.com/Designing-Sustainable-Packaging-Scott-

Boylston/dp/1856695972/ref=pd sim b 1 - #, Designing Sustainable Packaging, Lawrence King, 2009.

- 3. Dean, D. A., 'Pharmaceutical Packaging Technology' Taylor & Francis, 2000.
- 5. McKinlay, A. H., 'Transport Packaging', IoPP, 2004.
- 6. Robertson, G. L., 'Food Packaging, 2005.
- 7. Selke, S, 'Plastics Packaging', 2004.
- 8. Yam, K. L, Encyclopedia of Packaging Technology, John Wiley & Sons, 2009.

1.4. RAIL-ROAD-LOGISTICS

Unit I:

Transportation in Logistics: Significance of transportation in Logistics: Utility created by transportation in Logistics- Transportation as a means of conquering time and space- Features of Inbound, Out-bound, local and Medium, Long and continental transportation- Features of Logistics transportation- Advances in Logistics Transportation.

Unit II:

Railways and Logistics Contours: Features and facilities offered by Railways- Factors influencing growth in Rail Logistics- Suitability for different Cargo and distance Ranges segments – Innovative schemes/facilities to popularize rail logistics in India- Railway infrastructure in India and Freight movement- Share of Railways in Cargo movement in India and world-wide.

Unit III:

Railways and Logistics Economics: Freight Determination for Cargo in Railways - Freight levels and rail-cargo elasticity- Route Scheduling- Cargo consolidation- Arrangements for Pooling at rail head and distribution from rail head- Dedicated Rail-sidings for Bulk users- Technology, Cost, Speed, Security and Dynamics- Competition with other modes.

Unit IV:

Roadways and Logistics Contours: Roadways as a primary mode and complementary mode of transportation in Logistics – Features, Facilities and suitability- Innovations in road ways to make it Logistics-friendly- Factors influencing choice- Factors influencing growth in Road Logistics-Suitability for different Cargo and distance Ranges segments – Innovative schemes/facilities to popularize rail logistics in India- Share of Railways in Cargo movement in India and world-wide.

Unit V:

Roadways and Logistics Economics: Roadways Freight Rate Determinants- Freight levels and Road-cargo elasticity- Own Fleet: Capacity counters, maintenance, scheduling, freight consolidation, return and reverse logistics in Road Logistics- Road infrastructure and Logistics issues- Role National Highways and the Toll highways- Outsourcing Fleets from others- Technology, Cost, Speed, Security and Dynamics- Competition with other modes.

Unit VI:

Coordination among different Segments: Concept, need and areas of Coordination among different modes- Coordination among Supply chain partners- Energy Product Prices and Logistics – Environment and Logistics- Problems and Prospects in Interstate Logistics by Road-Role of Truckers' Bodies in Road Cargo Movement.

- 1. Coyle, Bardi & Novack Transportation: A Supply Chain Perspective, South-Western College, 2010
- 2. Coyle, Bardi & Novack, Transportation, South-Western College, 2005
- 3. MB. Stroh, A Practical Guide to Transportation and Logistics, Logistics Network Inc. 2006
- 4. Ritter, Barrett and Wilson, Securing Global Transportation Networks, McGraw Hill, 2006
- 5. M.Sweet, Transportation and Cargo Security, Prentice Hall, 2005.
- 6. James Banks, Introduction to Transportation Engineering, McGraw Hill, 2001.
- 7. Myer Kutz, Handbook of Transportation Engineering, McGraw Hill, 2011.

1.5. WAREHOUSING MANAGEMENT

Unit 1:

Warehouse Functions: Meaning of Warehousing - Importance - Functions: Receiving: Logistics support for Inward Transportation, Unloading, Inspection, Acceptance and Recording; Storing: Space allocation, Facilitation to stocking, Guarding & Recording; Risk bearing- Processing- Grading and branding - Disinfecting services -Issuing: Order preparation, Picking, Dispatching/ Delivery & Recording- Handling, Transportation & Storage of ISO Containers- Utility and Advantages of warehouses- Problems and issues in receiving processes.

Unit 2:

Warehouses Types: Own Warehouses- Hired Warehouses- Private Warehouses- Public Warehouses- Government Warehouses- Bonded Warehouses- Co-operative Warehouses- Distribution Warehouses- Fulfillment/ Consolidation Warehouses- Warehouses Providing Value Added Services- Cross Docking and Trans-loading Warehouses- Break Bulk Warehouses- Storage Warehouses- Refrigerated Warehouses- Characteristics of ideal warehouses- Warehouse Layout- Principles and Facilities- Types.

Unit 3:

Internal Operations: Measures and metrics of warehouse operations- Logistics in the warehouse-Localization of materials in a warehouse- Identification and classification of Materials and products in the warehouse- Managing the material/products turns in warehouse (FIFO/LIFO) - Problems and issues in shipment processes.

Unit 4:

Warehousing Equipment: Material Handling equipment and Systems – Role of Material Handling in Logistics- Unloading and loading equipment- Rolling Ladders-Lifting equipment- Carrying equipment - Platform Trucks-Industrial Carts- Industrial Scales- Pallet Equipment - Pallet Trucks - Rack Systems- Safety Matting, Industrial Safety Equipment- Storage types and storage unit management- Material Storage Systems – principles – benefits – methods- Industrial Shelving, Industrial Storage Bins - Industrial Storage Cabinets - Spill Containment Systems-Industrial Waste Disposal.

Unit 5:

Inventory Management: Inventory Management- Need and functions- Stock Levels under Conditions of Certainty, Risk and Uncertainty- Cost of carrying or not holding adequate inventory- EOQ-Stock-out cost based inventory decisions- Inventory Classification: ABC, VED and FSN- Methods of Inventory Issue Pricing- Cost and Profit implications- Inventory Ledger- Goods Receipt processing with inbound delivery/without inbound delivery - Goods issue with outbound delivery/internal consumption- Stock transfer Scenarios.

Unit 6: IT for Warehouse Management (WM): Warehouse documentation- Information flows in the warehouse- ERP-WMS - Bar code – RFID- Organization Data- Warehouse Structure- Warehouse Master Data- WM Material master view- Organization Data- Define Warehouse structure- Warehouse number - Storage type-Storage section - Storage Bin - Picking Area - Storage unit – Quantity- Creating Transfer requirement automatically/ manually - Creating Transfer requirement for storage.

- 1. James A. Tompkins, Warehouse Management Handbook, Tompkins Press, 1998.
- 2. David Mulcahy, Warehouse Distribution and Operations Handbook, McGraw Hill, 1993.
- 3. Edward Frazelle, World-Class Warehousing and Material Handling, McGrraw Hill, 2001.
- 4. David J. Piasecki, Inventory Accuracy: People, Processes, & Technology, Ops. Pub., 2003.
- 5. J P Saxena, Warehouse Management and Inventory Control (Paperback)
- 6. M.Napolitana, The Time, Space & Cost Guide to Better Warehouse, Distribution Group, 2003
- 7. Jeroen P. Van Den Berg, Integral Warehouse Management, Management Outlook, 2009.
- 8. Max Muller, Essentials of Inventory Management, AMACOM, 2009.
- 9. Steven M. Bragg, *Inventory Best Practices*, Wiley, 2011

Diploma Programme in Financial Management

Duration : One year

Eligibility : Pass in Higher Secondary (or) 3 year Diploma /

Those who are doing degree programme in colleges

Medium : English only.

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Subject Code	Title	Total Marks	Passing Minimum
1.1	Management – Principles and Practices	100	40
1.2	Financial and Management Accounting	100	40
1.3	Financial Management	100	40
1.4	Management of Funds	100	40
1.5	Financial Services and Institutions	100	40
	Total	500	200

1.1: MANAGEMENT – PRINCIPLES AND PRACTICES

UNIT 1

Management: Definition – Nature – Scope and Functions – Evolution of Management thought – Contributions of FW Taylor, Henri Fayol, Elton Mayo, Roethilisberger, H.A.Simon and P.F Drucker- Universality of Management - Relevance of management to different types of organization.

UNIT 2

Planning and Decision Making: Nature, importance and planning process – Planning premises – Components of planning as Vision, Mission, Objectives, Goals, Policies, Strategies, Procedures, Methods, Rules, Projects and Budgets – Decision-making – Meaning – Types – Decision-making Process under Conditions of Certainty and Uncertainty.

UNIT 3

Organizing: Nature, purpose and kinds of organization – Structure – Principles and theories of organization – Departmentalization – Span of control – Line and staff functions – Authority and responsibility – Centralization and decentralization – Delegation of authority – Committees – Informal organization.

UNIT 4

Staffing and Directing: General Principles of Staffing- Importance and techniques of Directing- Motivation – Meaning – Importance – Theories: Maslow, Herzberg, McGregor (X&Y), Ouchi (Z), Vroom, Porter-Lawler, McClelland and Adam – Communication: Meaning – Types – Process – Barriers; Leadership: Significance, Types Styles and Theories- Trait, Contingency, Situation, Path-Goal, Tactical, Transactional, Transformational and Grid.

UNIT 5

Coordination and Controlling: Coordination: Concept, Need and techniques; Controlling: Objectives and Process of control – Devices of control – Integrated control – Special control techniques.

UNIT 6

New Perspectives in Management - Strategic alliances - Core competence - Business process reengineering - Total quality management - Six Sigma- Benchmarking- Balanced Score-card.

- 1. Stoner, et-al, Management, Prentice Hall, 1989.
- 2. Koontz and O'Donnell, Management: A Systems Approach, McGraw Hill, 1990
- 3. Weihrich and Koontz, Management: A Global Perspective, McGraw Hill, 1988
- 4. Peter F. Drucker, Management, 2008.
- 5. Gene Burton and Manab Thakur, Management Today: Principles and Practice, Tata McGraw Hill.
- 6. <u>Ricky W. Griffinhttp://www.amazon.com/Management-Ricky-W-Griffin/dp/0618767959 #, Management, South-Western College Publications, 2010</u>
- 7. Stephen P. Robbins and Mary Coulter, *Management*, 9th Edition, 2006.
- 8. Kaplan <u>and Norton</u>, *The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*, HBP, 2000.

1.2: FINANCIAL AND MANAGEMENT ACCOUNTING

UNIT 1

Accounting: Definition – Accounting for historical function and managerial function – Scope of accounting – Financial accounting and Management accounting – Managerial uses – Differences- Financial Accounting concepts – Conventions – Principles – Accounting standards.

UNIT 2

Double entry system of accounting: Accounting books – Preparation of journal and ledger, subsidiary books – Errors and rectification – Preparation of trial balance and final accounts- Accounting from incomplete records – Statements of affairs methods – Conversion method – Preparation of Trading, Profit & Loss Account and Balance Sheet from incomplete records.

UNIT 3

Financial Statement Analysis: Financial statements – Nature of financial statements – Limitations of financial statements – Analysis of interpretation – Types of analysis- Tools of analysis: Trend analysis, Common size statements and Comparative statements; Ratio Analysis: Types – Profitability ratios – Turnover ratios – Liquidity ratios – Proprietary ratios – Market earnings ratios- Uses and limitations of ratios – Construction of Profit and Loss Account and Balance Sheet with ratios and relevant figures.

UNIT 4

Fund and Cash Flow: Fund Flow Statements: Need and meaning – Preparation of schedule of changes in working capital and the fund flow statement – Managerial uses and limitation of fund flow statement- Cash Flow Statement: Need – Meaning – Preparation of cash flow statement – Managerial uses of cash flow statement – Limitations – Differences between fund flow and cash flow analysis.

UNIT 5

Budgeting and Budgetary Control: Concept and Need for Budgeting- Classification of budgets –Preparation of Sales, Production, Material, Purchase and Cash Budgets – Budgetary control system – Mechanism – Master budget.

UNIT 6

Capital Budgeting System: Importance – Methods of capital expenditure appraisal – Payback period method – ARR method – DCF methods – NPV and IRR methods – Their rationale – Capital rationing.

- 1. Arulanandam & K.S. Raman, Advanced Accounting, Himalaya Publishing House.
- 2. Gupta & Radhasamy, Advanced Accounting, Sultan Chand & Sons.
- 3. Shukla & T.S. Grewal, Advanced Accounting, S.Chand & Company.
- 4. Jain & Narang, Advanced Cost Accounting, Kalyani. Publications.
- 5. Ravi M. Kishore, Cost Management, Taxman Publications
- 6. S.N. Maheswari, Management Accounting & Financial Accounting, Vikas Publishers.
- 7. Manmohan & Goyal, *Principles of Management Accounting*, Shakithabhavan Publication.
- 8. N. K. Prasad, Advanced Cost Accounting, Book Syndicate Pvt. Ltd., Calcutta.
- 9. Andrew A Haried, Advanced Accounting, Atlantic Publishers.
- 10. Hoyle, Advanced Accounting, McGraw Hill.

1.3: FINANCIAL MANAGEMENT

UNIT 1

Financial Management: Concept, nature, evaluation and significance – Finance Functions: Managerial and operative – Investment Function: Meaning and scope – Financing Function: Meaning and scope – Dividend function – Risk return trade off – Financial planning- Global financial environment- Finance and Tax Management Nexus- Tax Avoidance and Tax evasion- Tax incentive and business decisions.

UNIT 2

Long-term Capital Resources: Equity and debt sources – Equity share, preference shares and debentures as sources of long-term capital – Bridge finance, loan syndication, Book building – Borrowings from the term lending institutions and International capital market- Tax considerations in Financing decision areas.

UNIT 3

Cost of Capital and Determinants of capital structure: Concept of cost of capital- Cost of debt, equity, preference share capital, retaining earning – Weighted average cost: Computation of overall cost of capital- Tax and cost of capital- Capital structure: Concept and Types- Optimum capital structure – Theories of capital structure –Net income and net operative income theories – M.M. theory – Traditional theory – Their assumptions – Significance and limitations – Financial leverage operating leverage – Combined leverage – EBIT –EPS Analysis- Tax, Capital structure and Value nexus.

UNIT 4

Capital budgeting: Meaning, Nature and Types of Capital investment- Methods of appraisal under certainty conditions: PBP, ARR, IRR and NPV techniques- Uncertainty and Risk models: Simulation Analysis- Sensitivity analysis- Decision tree analysis- Certainty equivalent and risk-adjusted return measures- Tax considerations in Investment decisions Cost of capital and Investment Decisions- Leasing Vs. Investment: Evaluation and Tax implications.

UNIT 5

Working Capital: Concept and types – Determinants – Financing approaches – Conservative – Aggressive and hedging approaches – Sources of working capital finance – Working capital financing by commercial banks – Types of assistance – Inventory Management under conditions of certainty and uncertainty- Credit Management and evaluation alternative credit variables- Cash and liquidity management: Methods and Functions- Tax considerations in Remittances and Purchases.

UNIT 6

Dividend Theories: Valuation under Gordon and Walter theories – Dividend irrelevance under M.M. theory – Assumptions – Limitations – Dividend Policy: Different policies and practices – Factors affecting dividend decision – Tax considerations in dividend decision when tax is levied at the hands of companies and recipients.

- 1. Brigham and Ehrhardt, Financial Management: Theory & Practice, Thomson ONE, 2010
- 2. Brigham and Houston, Fundamentals of Financial Management, Thomson ONE, 2009.
- 3. Van Horne: Fundamentals of Financial Management, Prentice Hall, 2008
- 4. Jeff Madura, International Financial Management, South-Western College Pub., 2010
- 5. Prasanna Chandra, Financial Management, McGraw Hill, 2008.
- 6. Khan and Jain, Financial Management, Tata McGrawHill, 2009
- 7. Pandey I M, Financial Management, Vikas Publishers, 2007.

1.4. MANAGEMENT OF FUNDS

UNIT 1

Meaning and importance of funds: Concept of funds- Types and features of funds- Sources of Funds- Effective Mobilization and allocation of funds — Consequences of mal-mobilization and misallocation of funds — Organizing for funds management —Relationship with other function — Role of financial systems in Mobilization and Allocation — Barometer of business conditions.

UNIT 2

Considerations in Fund Allocation: Allocation of funds to most profitable opportunity – Development of profitable opportunity and evaluation- Business Capitalization- Assessment of funds for fixed assets – RoI, PBP, ARR, IRR considerations- considerations of risks and uncertainty-Capital rationing and its impact on financial planning-Treatment of inflation in capital budgeting.

UNIT 3

Considerations in fund Mobilization: Capital Market conditions- Interest rate scenario-Global financial contours- Variety of Instruments- Cost of floatation- Cost of Capital- Agency and Bankruptcy costs- Explicit and Implicit costs- Tax treatment - Relationship with financial Institutions. **UNIT 4**

Capital structure Decisions: Types of capital structures – Capital structure and Asset structure match - Liquidity, Solvency, Flexibility, Value impact and Risk considerations - Interest coverage, debt capacity and Debt service coverage considerations – Leverage aspects- Acquisition for specific allocation- Optimum capital structure.

UNIT 5

Leasing and Venture capital: Types of Leasing- Operating and Capital Leases- Evaluation of cash flows of leasing and buying alternatives- Venture financing options- Pros and cons.

UNIT 6

International financing and investment: International Financing Equity and Debt instruments: GDRs, ADRs, ECBs, FCCBs, Syndicated Loans- Finance from Multilateral financing institutions- Financing via MNCs- Domestic sources vis-à-vis international sources- Investing abroad: Opportunities- Considerations- Risk-Return – Foreign currency risk management.

- 1. Eugene F. Brigham, Financial Management: Theory and Practice (Harcourt) 2005.
- 2. Jeff Madura, International Financial Management, South-Western College Pub., 2010.
- 3. F. Brigham and Joel F. Houston, Fundamentals of Financial Management, Thomson, 2009.
- 4. Alan C. Shapiro, Multinational Financial Management, Wiley, 2008.
- 5. Kuchal, S.C, Financial Management, Chaitanya, Allahabad, 1992.
- 6. Prasanna Chandra, Financial Management, 2007.

1.5. FINANCIAL SERVICES AND INSTITUTIONS

UNIT 1

Overview of Financial Services and Institutions: Concept of financial services – Types of Financial Services: Fund Raising, Investment, Transfer and Conversion services- Financial Institutions: Banking and Insurance Institutions- Regulatory Institutions: Central Bank, Securities Exchange Commission or Board- Intermediary Institutions: UNIT 2

Instrument Rating Services: Bond Rating: Objectives – Methodology- Rating of Sovereign Bonds, Corporate Bonds, Structured Obligations, and Commercial paper Rating- Rating Symbols and significance- Equity Rating: Need and Methodology- Big three International Rating Institutions: Moody's, Fitch Ratings, and Standard & Poor (S&P')- Indian Rating Agencies: CRISIL, ICRA, CARE & SMERA: Services and significance.

UNIT 3

Capital Issue Services: Lead and Co-managers to the Capital Issue- Issue pricing and promotion – Disclosure norms – Issue underwriting –Road show- Book-building- Allotment- Greenshoe option- SEBI Guidelines for Public issues by New companies and existing companies- SEBI regulations on Listing, Lead managers and Merchant banking functionaries in Public Issues.

UNIT 4

Stock Trading Services: Role of Stock exchanges in Security pricing and trading- Stock Price indices: Methods of construction- SENSEX and NIFTY- SEBI guidelines for Market Intermediaries Registration and Supervision, Market Regulation and trading in Derivatives and New Products - Role of BSE, NSE and OTCEI - Online and mobile trading.

UNIT 5

Investment Services: Mutual Fund (MF) Services: Concept, need and scope – Major MF institutions in India– Features of major types of MF schemes – Performance – Portfolio performance evaluation measures – SEBI Regulations regarding mutual funds- Role of Association of MFs in India (AMFI)- Portfolio management services (PMS): Concept and need- Services of Non-banking financial Service Companies (NBFC) to investors.

UNIT 6

Insurance and foreign exchange Services: Banking services: Life Policies: Need and Types- Role of LIC, Bank operated and major Industrial houses operated Life insurance services-Concept of foreign exchange and rates – Determination of Spot, forward rates- Options and Futures markets: Functions and Significance – Services of forex brokers.

- 1. Raghunathan V, Stock Exchange and Investments, TMH, 2007
- 2. Avadhani V, Security Market, HPH, Mumbai, 2003
- 3. J.C. Verma,, Manual of Merchant Banking, Bharath Publishing House
- 4. Khan M.Y, Financial Services, Tata McGraw Hill
- 5. Gurusamy, S, Merchant Banking and Financial Service, TMH.

Diploma Programme in Marketing Management

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Those who are doing degree programme in colleges

Medium : English & Tamil

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1.3	Marketing of Services	100	40
1.4	Promotional Management	100	40
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1.1: MANAGEMENT – PRINCIPLES AND PRACTICES

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- 1. Stoner, et-al, *Management*, Prentice Hall, 1989.
- 2. Koontz and O'Donnell, Management: A Systems Approach, McGraw Hill, 1990
- **3. Weihrich and Koontz,** *Management: A Global Perspective*, McGraw Hill, 1988
- 4. Peter F. Drucker, Management, 2008.
- 5. Gene Burton and Manab Thakur, *Management Today: Principles and Practice*, Tata McGraw Hill.
- 6. <u>Ricky W. Griffinhttp://www.amazon.com/Management-Ricky-W-Griffin/dp/0618767959 #, Management, South-Western College Publications, 2010</u>
- 7. Stephen P. Robbins and Mary Coulter, *Management*, 9th Edition, 2006.
- 8. Kaplan and Norton, The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment, HBP, 2000.

1.2: MARKETING MANAGEMENT

UNIT 1

Modern Marketing Concept: Social marketing concept – Approaches to the study of marketing – Marketing segmentation – Meaning – Bases for segmentation, benefits – Systems approach – Features of industrial, consumer and services marketing- Marketing Environment: External factor – Demographic factors – Internal factors – Marketing mix – Four P's in marketing.

UNIT 2

Consumer Behaviour and Marketing Research: Meaning and importance – Consumer buying process – Determinants and theories of consumer behaviour – Psychological, sociological determinants – Theories and their relevance to marketing- Marketing Research: Meaning – Objectives – Procedure.

UNIT 3

Product Mix Management: Product planning and development – Meaning and process – Test marketing – Product failures – Product life cycles – Meaning and Stages – Strategies – Managing PLC- Product-Market Integration: Strategies – Product positioning – Diversification – Product line simplification – Planned obsolescence – Branding Policies and Strategies – Packing.

UNIT 4

Price Mix Management: Pricing and pricing policies – Objectives – Procedures – Bases for and Methods of price fixing – Cases for Free Pricing, Administered and Regulated pricing – Pricing and product life cycle.

UNIT 5

Physical Distribution Mix: Distribution channel policy – Logistics Decisions- Channel decisions: Choice considerations– Managing Conflict and Cooperation in channels – Middlemen functions- Modern Trends in Retailing- Malls and Online.

UNIT 6

Promotional Mix: Personal selling *Vs* impersonal selling – Personal selling – Process – Steps in selling – Management of sales force – Recruitment and selection – Training – Compensation plans – Evaluation of performance – Advertising – Importance – Objectives – Media planning and selection – Factors influencing selection – Advertisement copy – Layout – Evaluation of advertising – Advertising budget – Sales promotion – Methods and practices.

- 1. Etzel, Walker and Stanton, Fundamentals of Marketing, McGraw Hill, 2004
- 2. Philip Kotler & Gary Armstrong, *Principles of Marketing*, Prentice Hall, 2010.
- 3. Jerome Mccarthy, *Basic Marketing*, Richard D. Irwin.
- 4. Cundiff, Still & Govani, Fundamentals of Modern Marketing, Prentice Hall.
- 5. Memoria & Joshi, Fundamental of Marketing.
- 6. Paul Peter and James Donnelly Jr, Marketing Management, McGraw-Hill, 2010.
- 7. William O. Bearden, Marketing: Principles & Perspectives, McGraw-Hill, 2006.
- 8. William Arens, et al, Contemporary Advertising, McGraw-Hill, 2008.

1.3: MARKETING OF SERVICES

UNIT 1

Services: Concept of Services- Definition, characteristics, classification – Service Vs Product – Essentials of Service Marketing- Services Market Segmentation: Meaning – Process – Bases and purpose of market segmentation- Vision and Mission in Service Marketing – Service Marketing planning process.

UNIT 2

Services Positioning and Differentiation: Evolution of positioning – Positioning and services – Levels of positioning – Process of positioning – Importance of positioning – Considerations in Positioning – Re-positioning.

UNIT 3

Services Marketing Mix: Marketing mix elements – The 7Ps- Service Product – Pricing the service – Service location and channels – Promotion and communication of services – Processes – Physical evidence – Developing a marketing mix strategy- Marketing strategy formulation – Resource allocation and monitoring – Marketing planning and services.

UNIT 4

Customer-focused Services: Customer Expectations of service product- Service quality and marketing – Intangibles in Intangibles- Improving service quality – Customer retention - Relationship Marketing in Service Marketing.

UNIT 5

Experiential Services Marketing: Tourism Service marketing — Hotel Service marketing — Hospital services marketing- Education service marketing- Entertainment/Recreational Service Marketing.

UNIT 6

Encounter Services Marketing: Bank marketing — Insurance marketing — Telecommunication services marketing — Consultancy services marketing — Transport Service Marketing.

- 1. Lovelock, and Wirtz, Services Marketing, Prentice Hall, 2010.
- 2. Adrian Payne, Services Marketing, PHI, 1993.
- 3. Helen Woodruffe, Services Marketing, Macmillan, 1995.
- 4. Jha S.M, Services Marketing, Himalaya, 2002.
- 5. Sinha P.K and Sahoo S.C, Services Marketing, Himalaya.
- 6. Ravishankar, Services Marketing, Lalvani.
- 7. Valarie Zeithaml, et al, Services Marketing, McGraw hill, 2004.

1.4. PROMOTIONAL MANAGEMENT

UNIT 1

Overview of Promotion Management: Need for Marketing Promotion of Products and Services- Establishing promotional objectives – Setting the promotional budget – Techniques used – Promotional decision Different Promo-tools - Promotional Mix for New Products and Existing Products- Organizing for Promotion.

UNIT 2

Advertising: Importance, scope, benefits and criticisms – Advertising objectives – Advertising appropriation – Need, methods – Advertising agency – Functions, client – Agency relationships – Indian advertising agencies – Role of persuasion in advertising – Copy Development - Message strategy development and evaluation- Techniques used in producing advertisement for print, broadcast and media.

UNIT 3

Media Management: Media planning and selection – Media strategy – Media status in India – Media characteristics – Media research – Media Buying- Measuring advertising effectiveness-

UNIT 4

Public Relations and Publicity (PR &P): Public relations – Role, types of publics, process – Tools of public relations – Publicity – Institutional advertising – Direct marketing – Importance, techniques used, relevance in Indian context – Event marketing- Role of PR&P in Corporate Image Building.

UNIT 5

Sales promotion and Personal Selling/Salesmanship: Concept and Need for Sales promotion- Distinction between Sales Promotion and Advertisement- Sales promotion measures aimed at Consumer, Trade and Sales Force promotion- Personal selling or Salesmanship-Characteristics of Personal selling- Sales force management – Recruiting, Selecting, Training, Performance appraisal – Territory structuring – Trends in personal selling.

UNIT 6

Promotional Program Evaluation: Comparison and Contrast of Advertising, Publicity, Sales promotion and Personal selling — Evaluation of Promotional Measures: Bases for Promotional Evaluation—Process of Evaluation—Regulations of promotions—Legislations, relevance to society—Social responsibility—Promotion and women—Promotion and children—Ethics in promotion.

- 1. George Belch and Michael Belch, Advertising and Promotion: An Integrated Marketing Communications Perspective, McGraw-Hill, 2011.
- 2. Govani et-al, Promotional Management, PHI.
- 3. Russell and Vernill, Advertising Procedure, Prentice Hall.
- 4. Chunawala et-al, Foundation of Advertising Theory and Practice, 1995
- 5. Aakar, Batra and Myers, Advertising Management, PHI, 2003.
- 6. Gelder and Woodcock, Marketing & Promotional Strategy, Nelson Thornes, 2003.
- 7. James F. Engel, et al, *Promotional Strategy: Managing the Marketing Communications Process*, McGraw Hill, 1994.

1.5: PRODUCT MANAGEMENT

UNIT 1

Product Concept: Product Classification – Product Vs. Service – Product Vs. commodity-Financial Products – Derivative Products- Product line decisions: Product mix decisions, Product modification, Product differentiation, Product elimination – New Product Development: Need, risks and uncertainty- Product management organization structure – Role of product managers.

UNIT 2

New Product Development Process: Generation of ideas – Idea screening – Feasibility testing – Concept development and testing – Designing a new product: Factors to be considered – Standardization Vs Adaptation Vs. Differentiation– Modular design –Reverse engineering - Marketing strategy development – Business analysis – Product development – Test marketing – Commercialization – Launching – Success and Failures in launches: New product success and failures in Indian context – Classification of new products.

UNIT 3

Creativity and Innovation for NPD: Concept and Contours of creativity- Sources of Innovation- New Product Championing-Venture teams in new product development (NPD) – Organization for new product development – Top management contribution – 7S framework and its use in NPD – Team working.

UNIT 4

Product and Branding Positioning: Product Positioning: Concept and Process - Branding Positioning: Product Branding - Brand extension - Brand valuation - Brand image and equity - Brand positioning strategies - Packaging - Trends in packaging.

UNIT 5

Product Life Cycle (PLC): Phases of PLC and features thereof- Functional Management strategies for different phases of PLC- Strategic intervention for PLC management.

UNIT 6

Product Strategy and Policy: Product Portfolio Strategy – Product Investment and Divestment strategy- Product policy: New product development policy: Product Line consistency, Frequency, Launch time and Cannibalization Mitigation- Product Research – Components and areas of product research.

- 1. Crawford and Benedetto, New Products Management, McGraw-Hill, 2010.
- 2. Kenneth B. Kahn, The PDMA Handbook of New Product Development, Wiley, 2004.
- 3. Robert G. Cooper, Winning at New Products, Basic Books, 2001.
- 4. Donald G. Reinertsen, *The Principles of Product Development Flow*, Celeritas, 2009.
- 5. Ramanuj Majumdar, Product Management in India, PHI, 2011
- 6. John Stark, Product Lifecycle Management: Springer, 2011.
- 7. Om P Kaushal, Product Management, Lalvani.
- 8. Dave Littler, Marketing and Product Development, Philio Alen.
- 9. Subrato Sengupta, Brand Positioning: Strategies for Competitive Advantage, TMH.

Diploma Programme in System Management

Duration : One year

Eligibility : Pass in Higher Secondary (or) 3 year Diploma /

Those who are doing degree programme in colleges

Medium : English

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Subject Code	Title	Total Marks	Passing Minimum
Code		Marks	Willimum
1.1	Management – Principles and Practices	100	40
1.2	Management Information System	100	40
1.3	Office Automation	100	40
1.4	Internet Programming and Web Design	100	40
1.5	Multimedia Applications	100	40
	Total	500	200

1.1: MANAGEMENT – PRINCIPLES AND PRACTICES

UNIT 1

Management: Definition – Nature – Scope and Functions – Evolution of Management thought – Contributions of FW Taylor, Henri Fayol, Elton Mayo, Roethilisberger, H.A.Simon and P.F Drucker- Universality of Management - Relevance of management to different types of organization.

UNIT 2

Planning and Decision Making: Nature, importance and planning process – Planning premises – Components of planning as Vision, Mission, Objectives, Goals, Policies, Strategies, Procedures, Methods, Rules, Projects and Budgets – Decision-making – Meaning – Types – Decision-making Process under Conditions of Certainty and Uncertainty.

UNIT 3

Organizing: Nature, purpose and kinds of organization – Structure – Principles and theories of organization – Departmentalization – Span of control – Line and staff functions – Authority and responsibility – Centralization and decentralization – Delegation of authority – Committees – Informal organization.

UNIT 4

Staffing and Directing: General Principles of Staffing- Importance and techniques of Directing- Motivation – Meaning – Importance – Theories: Maslow, Herzberg, McGregor (X&Y), Ouchi (Z), Vroom, Porter-Lawler, McClelland and Adam – Communication: Meaning – Types – Process – Barriers; Leadership: Significance, Types Styles and Theories- Trait, Contingency, Situation, Path-Goal, Tactical, Transactional, Transformational and Grid.

UNIT 5

Coordination and Controlling: Coordination: Concept, Need and techniques; Controlling: Objectives and Process of control – Devices of control – Integrated control – Special control techniques.

UNIT 6

New Perspectives in Management - Strategic alliances - Core competence - Business process reengineering - Total quality management - Six Sigma- Benchmarking- Balanced Score-card.

- 1. Stoner, et-al, Management, Prentice Hall, 1989.
- 2. Koontz and O'Donnell, Management: A Systems Approach, McGraw Hill, 1990
- 3. Weihrich and Koontz, Management: A Global Perspective, McGraw Hill, 1988
- 4. Peter F. Drucker, Management, 2008.
- 5. Gene Burton and Manab Thakur, Management Today: Principles and Practice, Tata McGraw Hill.
- 6. <u>Ricky W. Griffinhttp://www.amazon.com/Management-Ricky-W-Griffin/dp/0618767959 #, Management, South-Western College Publications, 2010</u>
- 7. Stephen P. Robbins and Mary Coulter, *Management*, 9th Edition, 2006.
- 8. Kaplan <u>and Norton</u>, *The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment*, HBP, 2000.

1.2: MANAGEMENT INFORMATION SYSTEM

UNIT 1

Concept of Management Information System: Concepts of Information System and Management information systems- Information System design and development-Implementation testing and conversion- Evolution and element of MIS – Definition – Characteristics and basic requirements of MIS – Structure of MIS- Approaches to MIS development- Computerized MIS- Pre-requisites of an effective MIS- Limitations of MIS.

UNIT 2

MIS and Decision support System (DSS): MIS Vs data processing – MIS and decision support system – MIS and information resource management – MIS and Operations Research- Executive information and decision support systems – Artificial intelligence and expert system – MIS in Indian organizations – Recent developments in information technology.

UNIT 3

Computers and Communication: Information technology and Global integration –On-line information services – Electronic bulletin board systems – The internet, electronic mail, interactive video – Communication Channels – Communication networks – Local area networks – Wide area networks – Video conferencing- Relevance to MIS.

UNIT 4

Functional Information systems: MIS for Research Production - MIS for Marketing - MIS for Personnel - MIS for Finance - MIS for Inventory- MIS for Logistics- MIS for Product Development-MIS for Market Development.

UNIT 5

Client/ Server Computing: Communication servers – Digital networks – Electronic data interchange and its applications – Enterprise resource planning systems (ERP Systems) – Interorganizational information systems – Value added networks – Networking.

UNIT 6

Electronic Commerce and Internet: E-Commerce bases – E-Commerce and Internet – M-Commerce- Electronic Data Inter-change (EDI)- Applications of internet and website management. <u>REFERENCES</u>

- 1. James O'Brien & George Marakas, Management Information Systems, McGraw Hill, 2011.
- 2. Kenneth Laudon & Jane Laudon, Essentials of MIS, Prentice Hall, 2010.
- 3. Lisa Miller, MIS Cases: Decision Making with Application Software, Prentice Hall, 2008.
- 4. David M. Kroenke, *Experiencing MIS*, Prentice Hall, 2011.
- 5. Kenneth C. Laudon, MIS: Managing the Digital Firm, Prentice Hall, 2005.
- 6. Sadogopan S, Management Information Systems, 2001PHI.
- 7. Murdie and Ross, Management Information Systems, Prentice Hall.
- 8. Henri C. Lucas, Information Systems Concepts for Management, McGraw Hill, 1994.
- 9. Stephen Haag, Management Information Systems, 2008.

1.3: OFFICE AUTOMATION

UNIT 1:

Introduction: Basics and Evolution of Computing – Hardware and Software Aspects – Modern IT accessories- Operating Systems and Application Software – Introduction to Network Setting – LAN and WAN, Internet and Intranet- Information Needs of Business and IT support – Impact of IT on Business Excellence.

UNIT 2:

Fundamentals of working with a computer- Working with Microsoft Office Suite: MS Word – Creating, Opening, Saving and Formatting Documents – Mail Merge- Working with Spread Sheets: MS Excel – Tables – Formulas and Functions – Data Analysis using excel – Linking Work Sheets and Work Books – Charts – Macros Forms – Pivot Tables.

UNIT 3:

MS Power Point: Creating a Power Point Presentation (PPT) Using Slide Master, Animation and Graphics in PPT. MS Access – Creating and Modifying Data Bases – Report Generation – Linking Access Files with Excel Files. MS: Project: Creating Project Design, Schedules, PERT / CPM Charts and Reports.

UNIT 4:

Internet and E-Commerce: E-Mail Etiquette - Usages of Search Engines and Portals – Website and Web Based E-mail, FTP and Net Meeting – WiFi Environment in Modern Offices- E-advertisements- Basic Models of E-Business: B2B, B2C, C2C and Mobile Commerce (M-Commerce)

UNIT 5:

Buying and Selling through Internet: E-Payment and Electronic Fund Transfer – E-ticketing – IT for Supply chain - Payment Gateway and Security Systems – On-line Stores – E-banking-Internet Banking – Smartcards and Plastic Money.

UNIT 6: Electronic Data Interchange (EDI) - Enterprise Resource Planning System- Data Mining-Data Warehousing- Teleconferencing -Online office suite- Paperless Office - Telecommuting or Telework- Virtual Team- Virtual Business.

- 1. Vijayaraghavan. G., *Computer Applications for Management*, 1st Edition (2006), Himalaya Publishing Company.
- 2. Rayudu, C.S., *E-Commerce and E-Business*, 1st Edition (2004), Himalaya Publishing Company.
- 3. Agarwala, N. Kamlesh, Business on the Net, Macmillan Publishers
- 4. George Reynolds, Information Technology for Managers, Course Tech., 2009.
- 5. Shelly, Cashman and Vermaat, *Microsoft Office* 2007, Course Tech., 2007.
- 6. Shelly and Vermaat, *Discovering Computers*, Course Tech., 2010.
- 7. Brown, DeHayes, et al, Managing Information Technology, Prentice Hall, 2011.

1.4: INTERNET PROGRAMMING AND WEB DESIGN

UNIT 1

Foundations for Internet Programming: An overview of internet programming – web system architecture URL- Domain Name System- overview of HTTP- HTTP request-responsegeneration of dynamic web pages cookies- WWW design issues – Security and Encryption – Developing Intranet applications.

UNIT 2

Internet Programming Languages: Java – Java in Windows – Common Gateway Interface (CGI) – Perl: Strawberry Perl or Active Perl – Microsoft Internet implementation.

UNIT 3

Internet Scripting Languages: Java Script – VB Script – Other Scripting languages- Java basics – I/O streaming – files – Looking up Internet Address - Socket programming – client/server programs – E-mail client – SMTP - POP3 programs – web page retrieval – protocol handlers – content handlers - applets – image handling - Remote Method Invocation.

UNIT 4

Internet Markup Languages: HTML & SGML: Introduction- Basic HTML-Formatting and Fonts- Commenting Code- Anchors- Backgrounds- Images- Hyperlinks- Lists-Tables-Frames- simple HTML Forms-XHTML- Netscape extensions – Microsoft internet explorer – Only HTML tags – Shockwave and Lingo- Dynamic HTML – introduction – cascading style sheets.

UNIT 5

ActiveX Controls: Creating an ActiveX control to activate a Web Page – VDO Live Technology – Creating Netscape Navigator Plug-ins – Pulling web information – Creating a custom integrated application with multiple protocols.

UNIT 6

Web Graphics: A graphic view of web – Essay web graphics – Images and Hyperlinks – Adding graphics to web pages – Site and page design – Framing your graphics – Dynamic graphics – Animation.

- 1. Ralph Moseley, *Developing Web Applications*, Wiley publication.
- 2. Krishnamoorthy R and Prabhu S., *Internet and Java Programming*, New Age International Publishers, 2004.
- 3. Thomno A. Powell, The Complete Reference HTML and XHTML, TMH, 2003.
- 4. Naughton, *The Complete Reference Java2*, Tata McGraw-Hill, 3rd Edition, 1999.
- 5. Powell, HTML: The Complete Reference, Tata McGraw Hill, 1998.
- 6. Tom Negrino and Dori Smith, JAVA script for World Wide Web.
- 7. Bob Breedlove et-al, Web Programming Unleased, Sams Net Publ., 1996.
- 8. Ron Wodaski, Web Graphics Bible, Comdex Computer Publ., 1997
- 9. Young, Internet -Complete Reference, TMH, 1998.
- 10. Fred Halsall, Lingana Gouda Kulkarni, Computer Networking and the Internet, Pearson.

1.5: MULTIMEDIA AND APPLICATIONS

UNIT 1

Multimedia in Use and Technology: Introducing multimedia – Multimedia definition – Need, benefits and problems – System components – Multimedia platforms – Development tools: Types – Cross platform compatibility – Commercial tools – Standards.

UNIT 2

Media Types: Non-temporal – Text, image, graphics – Temporal – Analog, digital audio/video, music, animation, other media types – Extended images, digital ink, speech audio.

UNIT 3

Digital Video and Image Compression: Evaluating a compression system – Redundancy and visibility – Video compression techniques – Image compression standards – JPEG, MPEG, DV1.

UNIT 4

Object Oriented Multimedia: Objects, Classes and related items – Multimedia Frameworks: Overview, Media classes, Transform classes, Format classes, Component classes.

UNIT 5

Multimedia Environments: The CD family, CD-i – Overview – Media types – Media organization – Architecture and operations, Applications: Media in real world – Multimedia on networks – Training and education.

UNIT 6

Virtual Reality: Intelligent Multi Media System- Desk-top Virtual Reality (VR) – VR operating system- Virtual Environment Display and Orientation making- visually coupled system requirements-Intelligent VR software systems.

- 1. Juidth Jeffcoate, Multimedia in Practice: Technology and Application, Better World Books Ltd, 2008.
- 2. Simon J Gibbs and Dionysion C Tsichrikzis, *Multimedia Programming*, Chapters 2, 3, 4, 5, Addison Wesly, 1994.
- 3. John F Koegel Buford, Multimedia Systems, Addison Wesley, 1994.
- 4. Walter Worth John A, Multimedia Technology and Applications, Ellis Horowood Ltd, 1991.
- 5. Arch C Luther, Designing Interactive Multimedia, Bantam Books, 1992.
- 6. Fred Halsall, Multimedia Communications, Addison Wesley
- 7. David Gries and Paul Gries, Multimedia Introduction to Programming Using Java, 2004.
- 8. Patrick McNeil, The Web Designer's Idea Book, 2008
- 9. Scott Kelby, The iPod Book: How to Do Just the Useful and Fun Stuff with Your iPod and iTunes, 2009
- 10. Susmit Bagchi, Ubiquitous Multimedia and Mobile Agents: Models and Implementations, 2011.

Diploma Programme in Production and Operations Management

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1.3	Manufacturing, Maintenance and Waste Management	100	40
1.4	Management Innovation and R & D	100	40
1.5	Quality Management	100	40
	Total	500	200

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- 1. Stoner, et-al, *Management*, Prentice Hall, 1989.
- 2. Koontz and O'Donnell, Management: A Systems Approach, McGraw Hill, 1990
- **3. Weihrich and Koontz,** Management: A Global Perspective, McGraw Hill, 1988
- 4. Peter F. Drucker, Management, 2008.
- 5. Gene Burton and Manab Thakur, *Management Today: Principles and Practice*, Tata McGraw Hill.
- 6. <u>Ricky W. Griffinhttp://www.amazon.com/Management-Ricky-W-Griffin/dp/0618767959 #, Management, South-Western College Publications, 2010</u>
- 7. Stephen P. Robbins and Mary Coulter, *Management*, 9th Edition, 2006.
- 8. Kaplan and Norton, The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment, HBP, 2000.

1.2: PRODUCTION AND OPERATIONS MANAGEMENT

UNIT 1

Introduction to Production and Operation functions: Functions of Production Management- Relationship between production and other functions —Types of Production or Manufacturing systems- Job and Mass production- industrial engineering- Manufacturing engineering- operations research- Toyota Production System- CAD and CAM- Automation in Production.

UNIT 2

Capacity and Facility Planning: Importance of capacity planning- Capacity measurement – Capacity Requirement Planning (CRP) process for manufacturing and service industry- Facility Planning – Location of facilities – Location flexibility – Facility design process and techniques – Location break even analysis.

UNIT 3

Production Process Planning: Characteristic of production process systems – Process selection with PLC phases- Process simulation tools- Work Study – Significance – Methods, evolution of normal/standard time – Job design and rating.

UNIT 4

Plant Layout: Importance and function – Objectives – Work Flow patterns – Factors for good layout design – REL (Relationship) Chart – Assembly line balancing- Production Planning Control Functions – Planning phase- Action phase- Control phase – Mixed model line balancing- Aggregate production planning – Plant design optimization-Forecasting methods.

UNIT 5

Material requirement planning (MRP) and control: MRP concept and process - Inventory control systems and techniques – JIT and <u>Lean manufacturing</u>- Embedded JIT and MRP - Network techniques.

UNIT 6

Quality Management: Preventive Vs Breakdown maintenance for Quality – Statistical Quality Control: Control charts and Acceptance sampling procedures –Total Quality Management- 6 Sigma approach and Zero Defect Manufacturing.

- 1. Mikell P. Groover, Automation, Production Systems, and Computer-Integrated Manufacturing, Pearson, 2007.
- 2. Amitabh Raturi, Production and Inventory Management, South Western College, 2008.
- 3. Adam Jr. Ebert, Production and Operations Management, PHI Publication, 1992.
- 4. Muhlemann, Okland and Lockyer, Production and Operation Management, Macmillan.
- 5. Buffa E.S, Modern Production and Operation Management, TMH Publications.
- 6. Monks, Joseph G, Operations Management, Schaum's Outlines
- 7. Chary S.N, *Production and Operations Management*, TMH Publications, 2010.
- 8. Khanne O.P, *Industrial Engineering*.

1.3 MANUFACTURING, MAINTENANCE AND WASTE MANAGEMENT

Unit 1: Concept and Requisites of Manufacturing: Functions of manufacturing management-Basic Manufacturing operations - Organization and planning for manufacturing- Engineering, Research and Development- Design of manufacturing processes- Industrial equipment and maintenance- Methods engineering - Work measurement- Materials handling- Physical facilities-CAM and CAD- Manufacturing automation - Control systems, sensors, actuators and other control system components.

Unit 2: Types and Trends in Manufacturing systems: Single station manufacturing cells - Group technology and cellular manufacturing - Flexible manufacturing systems - Manual assembly lines-Transfer lines and similar automated manufacturing systems - Automated assembly systems-Robotics- Introduction to quality assurance - Statistical process control - Process planning and concurrent engineering - Production planning and control systems - Lean production and agile manufacturing-Material handling- Material transport systems- Storage systems- Automatic data capture.

Unit 3: Nature and Needs of Maintenance: Nature of Maintenance- Need for Maintenance- Maintenance and Productivity, Quality and Competitiveness- Types of maintenance systems: planned and unplanned maintenance – breakdown maintenance – corrective maintenance – opportunistic maintenance – routine maintenance – preventive maintenance – predictive maintenance – condition based maintenance systems – design-out maintenance – Total productive maintenance- Selection of maintenance systems - Maintenance planning and scheduling – establishing a maintenance plan—Items to be maintained and their Characters.

Unit 4: Organization and Operations of Maintenance: Maintenance organization – resource characteristics – resources structure – administrative structure – training of maintenance personnel – maintenance control- maintenance procedure – guidelines for matching procedures to items – universal maintenance procedure – System operations and documentation – documenting maintenance operations – record keeping – data collection and analysis – failure statistics – planning and scheduling plant shutdowns- evaluation of maintenance performance.

Unit 5: Concepts and contours of Waste Management: Concept of wastes- Nothing is a Waste until it is wasted –Types of Waste (on the bases of): Sources, Nature and Characteristics - Rates of Waste generation: Quantities and Qualities- Factors affecting generation- Problems from solid wastes-Changing nature of solid wastes and its Impact- Zero Waste system: Concept, Requisites and Efforts-Trends in e-Waste.

Unit 6: Systems and Strategies of Waste Management: Systems of Collection, Segregation, Handling, Transporting, Treatment, Storage and Disposal of Waste- On-site Collection, Segregation and Storage Strategy: Procedures and Requirements- Handling and Transporting strategy: Devices, People, Vehicles, Routing, Route Balancing and Transfer stations- Treatment Process: Organic and In-organic processes- Recovery and Reuse – Energy and Manure- Disposal Strategy- Industrial and Hazardous solid waste management- Extended Producer's Liability.

- 1. Groover, Fundamentals of modern manufacturing, John Wiley, 2010.
- 2. Gideon Halevi, Handbook of Production Management Methods, Heinemann, 2001.
- 3. Leone and Rahn, Fundamentals of Flow Manufacturing, flow Publishers, 2002.
- 4. Don Nyman, Maintenance Planning, Coordination & Scheduling, Industrial Press, 2010.
- 5. Gulati and Smith, Maintenance and Reliability Best Practices, Industrial Press, 2009
- 6. Un-Habitat, Solid Waste Management in the World's Cities, Earthscan Ltd, 2010.
- 7. Scott and Scheffler, Reduce, Reuse, Recycle, Green Books Guides, 2009.
- 8. Maynard, H.B, Handbook of Modern Manufacturing Management, McGraw Hill, 1998.

1.4. MANAGEMENT OF INNOVATION AND R&D

Unit 1:

Concept of Innovations and R&D: Meaning of Innovation- Requisites for Innovation: Creativity, Scientific Temper, Invention, Proto-type Development, Testing, Refinement, Perfection and Diffusion – Jay Doblin's Ten Types of Innovation – Jennifer Goddard's six focus areas for innovation - Innovation models of John Besant and Joe Tidd- R&D the back-bone of Technological Innovation- R & D and Economic Development Nexus- Technology innovators- Business Model innovators- Process innovators.

Unit 2:

Innovation and Human Intellect: Creativity and Problem Solving: The Creative Process- Intellect and Creativity- Creative Individuals and Out-of-box thinking- Techniques of Transforming Creativity into Invention and Invention into Innovation- Sources of Innovation- Michael Lee Scritchfield's 4P's of Creativity/Innovation: Product, Process, Person and Press (Place) - 4 Zones of Innovation: Product Leadership, Customer Intimacy, Operational Excellence and Category Renewal- Innovation failures.

Unit 3:

Theories of Creativity, Innovation, Technology and R&D: Behavioral theory of R&D investment and Innovation- Open Innovation theory- Dominant design theory- Technology S-curve theory-Brainstorming theory- Ed DeBono's Six Thinking Hats- Combination method- Brinnovation (breakthrough innovation)- Benchmarking- Complexity Theory- TRIZ/TIPS theory- Chris Grannell's Innovation Strategies- Role of MNCs in R&D – MNCs in US, EU and Japan in R&D Triad.

Unit 4:

Innovating Firms: Understanding the Innovative Features of the selected top innovators of the world, namely: The Facebook, Amazon, Apple, Google, Novartis, Walmart, HP, Nike, Intel, IBM, GE, Disney, Cricket, IPL 20-20, Samsung, Microsoft and Twitter - Organizational climate for Creativity and Innovation- Autonomy and Entrepreneurship, Close to the Customer, Competitive Spirit, Failure tolerance, organizational support and Managing Ambiguity and Paradox.

Unit 5:

Patenting of Innovation: Patenting Inventions and Innovations- Role of Patents, Copy Rights, Trade Marks and Licenses in Innovation and R&D management— Intellectual property rights - Decision support systems in R& D— Process Vs Product Innovation- Reverse Engineering- Law regarding Protection of Innovations from Imitations.

Unit 6:

Corporate and Government Commitment to Innovation and R&D: R & D as a Corporate Function – In-house R & D Resources and Commitment – Partnership in Innovation – Financiers of R & D Projects – Role of Consultants in R & D- Creating a productive team culture – Government support for R&D infrastructure and researchers- Role of DST, DBT and CSIR- Global Innovation Index-Innovation Efficiency Index: Input Index and Output Index.

- 1. Tom Peters and Robert Waterman, In Search of Excellence, London: Harper & Row 1982.
- 2. Alvin Toffler. Future Shock. New York, Bantom1971.
- 3. V. Govindarajan & C. Trimble, The Other Side of Innovation, HBSP, 2010.
- 4. V. Govindarajan & C. Trimble, Ten Rules for Strategic Innovators, HBSP, 2005.
- 5. Silverstein, Samuel and Decarlo, *The Innovator's Toolkit*, Wiley, 2008.
- 6. P Skarzynski and R Gibson, Innovation to the Core, HBSP, 2008
- 7. Scott Berkun, *The Myths of Innovation*, O'Reilly Media, 2010.
- 8. Braden Kelley & Rowan Gibson, Stoking Your Innovation Bonfire, Wiley, 2010.
- 9. James M. Utterback, Mastering the Dynamics of Innovation, 1994.
- 10. Peter F. Drucker, *Innovation and Entrepreneurship*, Harper, 2006.
- 11. WIPO, World Intellectual Property Organization's Publications.

1.5: QUALITY MANAGEMENT

UNIT 1

Quality: Concepts and Significance: Quality as customer delight – Quality as meeting standards – Actual *Vs* Perceived quality – Concept of total quality – Design, inputs, process and output – Need for quality – Function of quality – Philosophy of Quality: Old Vs. New – Quality as a problem, as a challenge and as a delight– 6 sigma concept- Contributions of Quality Gurus: Juran, Deming and Crosby.

UNIT 2

Statistical Quality Control: Fundamentals, evolution and objectives – Planning for quality – Quality process – Statistical Process Control (SPC) and acceptance sampling – Quality Assurance: Vendor Quality - Zero Defect Manufacturing.

UNIT 3

Quality Economics: Quality and Cost – Quality and Productivity- Benefits of Quality – Competition in Quality – Quality as a Competitive Edge- Role of MNCs in emergence of global quality.

UNIT 4

Quality Systems: Total quality control system Vs. Total quality management system – Total Quality Control (TQC) in Japan, US, Europe – Elements of TQC – Just in time, SPC, quality circles, quality teams- 6 Sigma Quality approach and process.

UNIT 5

Total Quality Management (TQM): Elements – TQM in global perspective – Global bench marking – Business process reengineering – Global standards – ISO 9000 series – Environmental QS 14000- Quality manual – Barriers to TQM.

UNIT 6

Total Quality Management and Leadership: Implementing TQM – Market choices – Meeting customer requirements – Maintaining competitive advantage – Core competence and strategic alliances for ensuring quality – Quality review, recognition and reward – Quality awards: Japanese Deming Award, US Malcolm Baldrige National Quality Award & Indian Golden Peacock National Quality Award.

- 1. Armond V. Feigerbaum, *Total Quality Control*, McGraw Hill, 2004.
- 2. Ron Collard, Total Quality: Success Through People, Jaico, 2006.
- 3. Juran, Planning for Quality, The Free Press, 1988
- 4. Willborn & Cheng, Global Management of Quality Assurance Systems, McGraw Hill.
- 5. Townsend & Gebhardt, Commit to Quality, John Wiley & Sons, 1990.
- 6. E. David Spong, The Making of a World-Class Organization, ASQ Quality Press, 2008.
- 7. Suganthi, L, Samuel, A Anand, Total Quality Management, Phi Learning, 2009.
- 8. Patrick L. Townsend, Joan E. Gebhardt, How Organizations Learn, ASQ QP, 2007.
- 9. Joel E. Ross, Susan Perry, Total Quality Management: St.Lucie Press, 1988.
- 10. P.N. Mukherjee, Total Quality Management, PHI, 2006.
- 11. Willborn & Cheng, Global Management of Quality Assurance Systems, McGraw Hill.
- 12. Nancy R. Tague, Quality Toolbox, ASQ Quality Press, 2005.
- 13. George and Weimerskirch, Total Quality Management: 2009
- 14. Pyzdek and Keller, The Six Sigma Handbook, McGraw Hill, 2009

Diploma Programme in Technology Management

Duration : One year

Eligibility : Pass in Higher Secondary (or) 3 year Diploma /

Those who are doing degree programme in colleges

Medium : English only.

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Subject	Title	Total	Passing
Code		Marks	Minimum
1.1	Management – Principles and Practices	100	40
1.2	Management of Innovation and R & D	100	40
1.3	Re-engineering and Flexi Systems	100	40
1.4	Manufacturing, Maintenance and Waste Management	100	40
1.5	Management of Technology Transfer and Absorption	100	40
	Total	500	200

1.1: MANAGEMENT – PRINCIPLES AND PRACTICES

UNIT 1

Management: Definition – Nature – Scope and Functions – Evolution of Management thought – Contributions of FW Taylor, Henri Fayol, Elton Mayo, Roethilisberger, H.A.Simon and P.F Drucker- Universality of Management - Relevance of management to different types of organization.

UNIT 2

Planning and Decision Making: Nature, importance and planning process – Planning premises – Components of planning as Vision, Mission, Objectives, Goals, Policies, Strategies, Procedures, Methods, Rules, Projects and Budgets – Decision-making – Meaning – Types – Decision-making Process under Conditions of Certainty and Uncertainty.

UNIT 3

Organizing: Nature, purpose and kinds of organization – Structure – Principles and theories of organization – Departmentalization – Span of control – Line and staff functions – Authority and responsibility – Centralization and decentralization – Delegation of authority – Committees – Informal organization.

UNIT 4

Staffing and Directing: General Principles of Staffing- Importance and techniques of Directing- Motivation – Meaning – Importance – Theories: Maslow, Herzberg, McGregor (X&Y), Ouchi (Z), Vroom, Porter-Lawler, McClelland and Adam – Communication: Meaning – Types – Process – Barriers; Leadership: Significance, Types Styles and Theories- Trait, Contingency, Situation, Path-Goal, Tactical, Transactional, Transformational and Grid.

UNIT 5

Coordination and Controlling: Coordination: Concept, Need and techniques; Controlling: Objectives and Process of control – Devices of control – Integrated control – Special control techniques.

UNIT 6

New Perspectives in Management - Strategic alliances - Core competence - Business process reengineering - Total quality management - Six Sigma- Benchmarking- Balanced Score-card.

- 1. Stoner, et-al, Management, Prentice Hall, 1989.
- 2. Koontz and O'Donnell, Management: A Systems Approach, McGraw Hill, 1990
- 3. Weihrich and Koontz, Management: A Global Perspective, McGraw Hill, 1988
- 4. Peter F. Drucker, Management, 2008.
- 5. Gene Burton and Manab Thakur, Management Today: Principles and Practice, Tata McGraw Hill.
- 6. <u>Ricky W. Griffinhttp://www.amazon.com/Management-Ricky-W-Griffin/dp/0618767959 #, Management, South-Western College Publications, 2010</u>
- 7. Stephen P. Robbins and Mary Coulter, *Management*, 9th Edition, 2006.
- 8. Kaplan and Norton, The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment, HBP, 2000.

1.2 MANAGEMENT OF INNOVATION AND R&D

Unit 1: Concept of Innovations and R&D: Meaning of Innovation- Requisites for Innovation: Creativity, Scientific Temper, Invention, Proto-type Development, Testing, Refinement, Perfection and Diffusion – Jay Doblin's Ten Types of Innovation – Jennifer Goddard's six focus areas for innovation - Innovation models of John Besant and Joe Tidd- R&D the back-bone of Technological Innovation- R & D and Economic Development Nexus- Technology innovators- Business Model innovators- Process innovators.

Unit 2: Innovation and Human Intellect: Creativity and Problem Solving: The Creative Process-Intellect and Creativity- Creative Individuals and Out-of-box thinking- Techniques of Transforming Creativity into Invention and Invention into Innovation- Sources of Innovation- Michael Lee Scritchfield's 4P's of Creativity/Innovation: Product, Process, Person and Press (Place) - 4 Zones of Innovation: Product Leadership, Customer Intimacy, Operational Excellence and Category Renewal-Innovation failures.

Unit 3 : Theories of Creativity, Innovation, Technology and R&D: Behavioral theory of R&D investment and Innovation- Open Innovation theory- Dominant design theory- Technology S-curve theory- Brainstorming theory- Ed DeBono's Six Thinking Hats- Combination method- Brinnovation (breakthrough innovation)- Benchmarking- Complexity Theory- TRIZ/TIPS theory- Chris Grannell's Innovation Strategies- Role of MNCs in R&D – MNCs in US, EU and Japan in R&D Triad.

Unit 4: Innovating Firms: Understanding the Innovative Features of the selected top innovators of the world, namely: The Facebook, Amazon, Apple, Google, Novartis, Walmart, HP, Nike, Intel, IBM, GE, Disney, Cricket, IPL 20-20, Samsung, Microsoft and Twitter - Organizational climate for Creativity and Innovation- Autonomy and Entrepreneurship, Close to the Customer, Competitive Spirit, Failure tolerance, organizational support and Managing Ambiguity and Paradox.

Unit 5: Patenting of Innovation: Patenting Inventions and Innovations- Role of Patents, Copy Rights, Trade Marks and Licenses in Innovation and R&D management—Intellectual property rights - Decision support systems in R& D— Process Vs Product Innovation- Reverse Engineering- Law regarding Protection of Innovations from Imitations.

Unit 6: Corporate and Government Commitment to Innovation and R&D: R & D as a Corporate Function – In-house R & D Resources and Commitment – Partnership in Innovation – Financiers of R & D Projects – Role of Consultants in R & D- Creating a productive team culture – Government support for R&D infrastructure and researchers- Role of DST, DBT and CSIR- Global Innovation Index-Innovation Efficiency Index: Input Index and Output Index.

- 1. Tom Peters and Robert Waterman, In Search of Excellence, London: Harper & Row 1982.
- 2. Alvin Toffler. Future Shock. New York, Bantom1971.
- 3. V. Govindarajan & C. Trimble, The Other Side of Innovation, HBSP, 2010.
- 4. V. Govindarajan & C. Trimble, Ten Rules for Strategic Innovators, HBSP, 2005.
- 5. Silverstein, Samuel and Decarlo, *The Innovator's Toolkit*, Wiley, 2008.
- 6. P Skarzynski and R Gibson, Innovation to the Core, HBSP, 2008
- 7. Scott Berkun, The Myths of Innovation, O'Reilly Media, 2010.
- 8. Braden Kelley & Rowan Gibson, Stoking Your Innovation Bonfire, Wiley, 2010.
- 9. James M. Utterback, Mastering the Dynamics of Innovation, 1994.
- 10. Peter F. Drucker, Innovation and Entrepreneurship, Harper, 2006.
- 11. WIPO, World Intellectual Property Organization's Publications.

1.3 RE-ENGINEERING AND FLEXI SYSTEMS

- **Unit 1: Concept and Requisites of BPR and Flexi System:** Nature, Significance and Rationale of Business Process Reengineering (BPR) Fundamental Rethinking is Fundamental of BPR- The Genesis-Requisites: Reengineering Leader, Reengineering Communications, Reengineering Journey, New Process Design, Reengineering Failure, Reengineering Team, Reengineering Effort, Reengineering Program, Reengineering Will- Speed and Smart Execution- Concept and Significance of Flexibility- Flexible Vs Fixed systems- Features and superiority of Flexible systems.
- **Unit 2: Process Reengineering:** Appraisal of Processes Processes for Reengineering-Reengineering of Processes- Role of information technology- BPR Cycle: Identify, Analyze As-Is, Envision New Processes- Business process discovery and diagnosis- Design/Redesign/Reconstruction Test and Implement- Monitor- Business process interoperability- Business process Improvement- Business process mapping- Process Reengineer- BPR Process and Participants.
- **Unit 3: Implementing BPR:** Approval of BPR- Preparations for Implementation- BPR Process Chart- Change Management- Communication, Commitment, Control and Contours- Reengineering Reporting- Systems Thinking- Reengineering Enabling Processes- Continuous Improvement- Bottom-up Participation Process- BPR Principles.
- **Unit 4: Evaluation of PBR:** Reengineering Success- Reengineering Revolution- BPR Vs TQM; BPR Vs CQI; BPR Vs Scientific Management; BPR Vs Industrial Engineering; BPR Vs Value Engineering- BPR Criticisms- BPR Can do well.
- **Unit 5: Types of Functional Flexi systems:** Simplifying systems Enterprise Flexibility: Ready for Experimenting and coping with Paradoxes- Strategic Flexibility: Ready for Change and Dynamics-Organizational Flexibility: Fluidity and Managing by Walking around- Financial Flexibility Marketing Flexibility Human Resources Flexibility Information System Flexibility Manufacturing system Flexibility Supply Chain Flexibility.
- **Unit 6: Components and Competitiveness of Flexi Systems:** Flexibility in Technology- Flexibility in Product offerings- Flexibility in service offerings- Flexibility in Business Excellence- Flexibility in Mergers and Acquisitions- Flexibility in Strategic Alliances- Competitive Edge and Flexi Systems.

- 1. Jacobson, et al, Business Process Reengineering With Object Technology, Addison-Wesley, 1994
- 2. Clarence Feldmann, *The Practical Guide to Business Process Reengineering* Dorset House, 1998.
- 3. Dan Madison, *Process Mapping, Process Improvement & Process Management*, Paton Pres, 2005
- 4. Harvard Business School, *Improving Business Processes*, HBSP, 2010.
- 5. Jay Heizer and Barry Render, Operations Management Flexible Version, Prentice Hall, 2011.
- 6. Christopher Bartlett (Author), Paul Beamish, Transnational Management, McGraw Hill, 2010.
- 7. Birkinshaw & Hagström, Flexible Firm: Capability Management in Network Organizations, OUP, 2002.
- 8. Ord Elliott, *The Future is Fluid Form: Designing Flat, Flexible Organizations*, iUniverse.com, 2009

9. Smith, Flexible Product Development: Building Agility for Changing Markets, Jossey-Bass, 2007.

1.4 MANUFACTURING, MAINTENANCE AND WASTE MANAGEMENT

Unit 1: Concept and Requisites of Manufacturing: Functions of manufacturing management-Basic Manufacturing operations - Organization and planning for manufacturing- Engineering, Research and Development- Design of manufacturing processes- Industrial equipment and maintenance- Methods engineering - Work measurement- Materials handling- Physical facilities-CAM and CAD- Manufacturing automation - Control systems, sensors, actuators and other control system components.

Unit 2: Types and Trends in Manufacturing systems: Single station manufacturing cells - Group technology and cellular manufacturing - Flexible manufacturing systems - Manual assembly lines-Transfer lines and similar automated manufacturing systems - Automated assembly systems-Robotics- Introduction to quality assurance - Statistical process control - Process planning and concurrent engineering - Production planning and control systems - Lean production and agile manufacturing-Material handling- Material transport systems- Storage systems- Automatic data capture.

Unit 3: Nature and Needs of Maintenance: Nature of Maintenance- Need for Maintenance- Maintenance and Productivity, Quality and Competitiveness- Types of maintenance systems: planned and unplanned maintenance — breakdown maintenance— corrective maintenance— opportunistic maintenance — routine maintenance — preventive maintenance — predictive maintenance — condition based maintenance systems — design-out maintenance — Total productive maintenance- Selection of maintenance systems - Maintenance planning and scheduling — establishing a maintenance plan—Items to be maintained and their Characters.

Unit 4: Organization and Operations of Maintenance: Maintenance organization – resource characteristics – resources structure – administrative structure – training of maintenance personnel – maintenance control- maintenance procedure – guidelines for matching procedures to items – universal maintenance procedure – System operations and documentation – documenting maintenance operations – record keeping – data collection and analysis – failure statistics – planning and scheduling plant shutdowns- evaluation of maintenance performance.

Unit 5: Concepts and contours of Waste Management: Concept of wastes- Nothing is a Waste until it is wasted –Types of Waste (on the bases of): Sources, Nature and Characteristics - Rates of Waste generation: Quantities and Qualities- Factors affecting generation- Problems from solid wastes- Changing nature of solid wastes and its Impact- Zero Waste system: Concept, Requisites and Efforts-Trends in e-Waste.

Unit 6: Systems and Strategies of Waste Management: Systems of Collection, Segregation, Handling, Transporting, Treatment, Storage and Disposal of Waste- On-site Collection, Segregation and Storage Strategy: Procedures and Requirements- Handling and Transporting strategy: Devices, People, Vehicles, Routing, Route Balancing and Transfer stations- Treatment Process: Organic and In-organic processes- Recovery and Reuse – Energy and Manure- Disposal Strategy- Industrial and Hazardous solid waste management- Extended Producer's Liability.

- 1. Groover, Fundamentals of modern manufacturing, John Wiley, 2010.
- 2. Gideon Halevi, Handbook of Production Management Methods, Heinemann, 2001.
- 3. Leone and Rahn, Fundamentals of Flow Manufacturing, flow Publishers, 2002.
- 4. Don Nyman, Maintenance Planning, Coordination & Scheduling, Industrial Press, 2010.
- 5. Gulati and Smith, Maintenance and Reliability Best Practices, Industrial Press, 2009

- 6. Un-Habitat, Solid Waste Management in the World's Cities, Earthscan Ltd, 2010.
- 7. Scott and Scheffler, Reduce, Reuse, Recycle, Green Books Guides, 2009.
- 8. Maynard, H.B, Handbook of Modern Manufacturing Management, McGraw Hill, 1998.

1.5 MANAGEMENT OF TECHNOLOGY TRANSFER AND ABSORPTION

Unit 1: Technology Transfer and Acquisition: Meaning, Need and Process- The Essence of Technology Transfer- Transfer within and between Nations- Price and Return for Transfer of Technology- IPR Protection Regimes and Technology Transfer- Multilateral Policies and Technology Transfer- Trade and Investment Policy of Host/Source Country vis-à-vis Technology Transfer.

Unit 2: WTO's TRIPs and Technology Transfer Issues: TRIPs and Technology transfer- TRIPs, Technology Transfer and Environment - Relaxing IPRs Standards for Environmentally Sound Technologies – TRIPs and Convention on Bio-Diversity (CBD) vis-à-vis technology transfer – Loose Vs Tight IPR Protective Environment vis-à-vis- Technology Transfer- WTO Article 66.2 Implementation and Technology Transfer.

Unit 3: Technology Transfer Routes: Contractual and Non-contractual Flows of technology- Market Channels: Licensing- JVs- FDI- MOU- MNCs- Bargaining Process- Conditions for Market Channels-Non-market Channels: Imitation and Reverse Engineering- 'Invent Around'- Cross-border movement of personnel- Conditions facilitating non-market channels- Outsourcing as Alternative to Technology Transfer- Local innovation in developing countries as Alternative to Technology Transfer.

Unit 4: Concept and nature of Technology Absorption: Meaning of Technology Absorption-Cycle of Technology Absorption: Transfer> Adoption> Adaptation> Absorption > Assimilation - Absorption and Productivity - Absorption and Human Interactions, Psychological Factors, Organizational Redesign and Re-engineering..

Unit 5: Technology diffusion and absorption: Meaning of Technology Diffusion- Key Diffusion Routes: Trade, FDI, R&D, and Labor mobility and training - Proxies for Absorption: Patent Citations, International Co-invention, and Multinational Sponsorship of Local Invention- Diffusion to Innovation- Rate of Diffusion – Time, Speed and Cost of Innovation through Diffusion- Creation of Superior Technology.

Unit 6: Trend and Hurdles in Technology Transfer and Absorption: Status of Technology Absorption in India - Need for new outlook on Absorption strategies for acquired technology-Creating new/improved technologies- Hurdles: Attitude of Technology Transferor and Transferee firms- Market Size- R&D spend level vis-à-vis GDP- Quality of Education and Human Resources – Taxation and Fiscal Policy- PPP for Technology Transfer and Absorption.

- 1. Itzhak Goldberg, Globalization & technology absorption in Europe & Central Asia, WB, 2008.
- 2. Andrew Michaels, *International Technology Transfer and Trips Article 66.2: Can Global Administrative Law Help Least-Developed countries Get What They Bargained for?* 31st July, 2011, http://gjil.org/wpcontent/uploads/archives/41.1/InternationalTechnologyTransfer.PDF
- 3. World Bank, http://go.worldbank.org/F9I6SOVA50.
- 4. World Bank, http://www.worldbank.org/eca
- 5. Tabachnick & Koivukoski, Globalization, Technology, and Philosophy, Suny Press, 2004.
- 6. Andrew Feenberg, *Transforming technology*, Oxford University Press, 2002
- 7. United Nations, Taxation and Technology Transfer, 2006.