

Syllabi

SYLLABI - UG

SYLLABI - PG

SYLLABI - MBA PROGRAMMES – 2016-17

SYLLABI FOR PG DIPLOMA – 2016-17

SYLLABI FOR CERTIFICATE PROGRAMMES – 2016-17

M.S.W.PAPER 2.5 FIELD WORK – MANUAL

FORMAT FOR M.S.W PROJECT REPORT

SYLLABI FOR PG DIPLOMA – 2016-17

ALAGAPPA UNIVERSITY

(Accredited with 'A' Grade by NAAC)
KARAIKUDI – 630 003 TAMILNADU

DIRECTORATE OF DISTANCE EDUCATION

(Recognized by Distance Education Bureau (DEB), UGC, New Delhi)

PG. DIPLOMA PROGRAMMES



REGULATIONS AND SYLLABI

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ALAGAPPA UNIVERSITY, KARAIKUDI

DIRECTORATE OF DISTANCE EDUCATION

REGULATIONS AND SYLLABI

PG. DIPLOMA PROGRAMMES

Sl.No.	Course	Page No.
1	P.G.Dip. in (Personnel Management & Industrial Relations)	3-8
2	P.G.Dip. in (Business Management)	9-15
3	P.G.Dip. in (Hospital Administration)	16-20
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5	P.G.Dip. in (Human Resource Management)	26-31
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Course : **P.G. Diploma in Personnel Management and Industrial Relations**
Mode : Distance Education
Duration : One year
Eligibility : Any degree from a recognised University
Medium : *English*

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Subject Code	Title	Total Marks
1	Management Concepts	100
2	Principles of Personnel Management	100
3	Labour Legislations-I	100
4	Labour Legislations-II	100
5	Industrial Relations	100
	Total	500

Paper 1: MANAGEMENT CONCEPTS

UNIT I

Management: Definition – Nature – Scope and functions – Evaluation of management thought – Relevance of management to different types of organization like Hospitals, Universities, Hostels, Social Service organizations, etc.

UNIT II

Planning: Nature, importance and strategic considerations in planning – Planning premises – Components of planning as objectives, policies, strategies, procedures, methods, rules, projects and budgets – Making plans effective – Planning and decision making.

UNIT III

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

UNIT IV

Staffing and directing: General principles, importance and techniques.

UNIT V

Controlling: Objectives and process of control – Devices of control – integrated control – Special control techniques – Co-ordination – Need and techniques.

UNIT VI

Recent trends and new perspectives in management: Strategic alliances – Core competence – Business process reengineering – TQM – Benchmarking.

REFERENCE BOOKS:

1. Stoner and Wankler, Management, Prentice Hall.
2. Koontz and O'Donnel, Management, A Systems Approach, Tata McGraw Hill.
3. Weihrich and Koontz, Management – A Global Perspective, McGraw Hill.
4. John Argenti, Management Techniques – A Practical Guide.
5. Gene Burton & Manab Thakur, Management Today: Principles and Practice, TMH.

Paper 2: PRINCIPLES OF PERSONNEL MANAGEMENT

UNIT I

Personnel Management – Definition – Objectives and functions – Role and structure of personnel function in organizations – Personnel principles and policies.

UNIT II

Human Resource Planning – Characteristics – Need for planning – HRP process – Job analysis – Job design – Job description – Job specification.

UNIT III

The Selection Process – Placement and induction – Training and development – Promotion – Demotions – Transfer – Separation.

UNIT IV

Wage and salary administration – Factors – Principles – Compensation plan – Individual – Group – Incentives – Bonus – Fringe benefits – Job evaluation systems – Wage and salary administration in relation to personal taxation.

UNIT V

Employee maintenance and integration – Welfare and safety – Accident prevention – Administration of discipline – Employee motivation – Need and measures.

UNIT VI

Personnel Records/Reports – Personnel research and personnel audit – Objectives, scope and importance.

REFERENCE BOOKS:

1. Venkataratnam C S and Srivastava B K, Personnel Management and Human Resources, Tata McGraw Hill, 1991.
2. Arun Monappa, Industrial Relations, Tata McGraw Hill, 1987.
3. Dale Yodder, Paul and Standohar D, Personnel Management and Industrial Relations, Sterling Publishers, 1990.
4. David A Decenzo and Stephen, Robbins P, Personnel/Human Resource Management, Prentice Hall, 1955.

Paper 3: LABOUR LEGISLATIONS - 1

UNIT I

Factories Act, 1948: Provision's 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 II

Workmen's Compensation Act, 1923: Employer's liability for compensation, amount of compensation method of calculating wages – Review – distribution of compensation – Remedies of employer against stranger – Returns as to compensation – Commission for workmen's compensation.

UNIT III

Industrial Dispute Act, 1947: Industrial dispute – Authorities for settlement of industrial disputes – Reference of industrial disputes – Procedures – Power and duties of authorities, settlement and strikes – Lock-out – Lay-off – Retrenchment – Transfer and closure – Unfair labour practices – Miscellaneous provisions offences by companies, conditions of service to remain unchanged under certain circumstances, etc.

UNIT IV

Shops and Establishments Act, 1947: Definitions – Sailable provisions – Powers of the authorities.

UNIT V

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 VI

Employees Provident Fund and Miscellaneous Provisions Act, 1952: Employees 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.

REFERENCE BOOKS:

1. Bare Acts
2. Kapoor N D, Industrial Law
3. Shukla M C, Industrial Law

Paper 4: LABOUR LEGISLATIONS - II

UNIT I

Computation of available surplus calculation of direct tax payable 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, adjustment of customary or interim bonus linked with production or productivity – set on and set off allocable surplus, presumption about accuracy of balance sheet and profit and loss account.

UNIT II

Payment of Gratuity Act, 1972: Payment of Gratuity – exemption – nomination – determination and recovery of the amount of gratuity.

UNIT III

Payment of Wages Act, 1936: Objects, provisions relating to responsibility for payment of wages – fixation of wage periods, time of payment, deduction and fines – maintenance of records and registers, inspectors appointment of authorities and adjudication of claims.

UNIT IV

Minimum Wages Act, 1948: Objects, fixing of minimum rate or wages – procedure for fixing and receiving minimum wages – appointment of advisory board – payment of minimum wages, maintenance of registers and records contracting out – powers of appropriate government offences and penalties.

UNIT V

Industrial Employment(Standing Orders) Act, 1946: Provisions regarding certification and operating of standing orders – duration and modification of standing orders – power of certifying officer – interpretation of standing orders.

UNIT VI

Trade Union Act, 1926: Registration of Trade Unions, rights, and liabilities trade unions – procedure – penalties

REFERENCE BOOKS:

- Bare Acts
- Kapoor N D, Industrial Laws
- Shukla M C, Industrial Laws

Paper 5: INDUSTRIAL RELATIONS

UNIT I

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 II

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, objectives and functions – Convention and recommendations.

UNIT III

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 IV

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 V

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

UNIT VI

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

REFERENCE BOOKS:

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.

Course : **P.G. Diploma in Business Management**
Mode : Distance Education
Duration : One year
Eligibility : Any degree from a recognised University
Medium : *English*

COURSE OF STUDY & SCHEME OF EXAMINATIONS

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Subject Code	Title	<i>Total Marks</i>
1	Management Concepts	100
2	Financial Management	100
3	Marketing Management	100
4	Principles of Personnel Management	100
5	Business Environment	100
	Total	500

Paper 1: MANAGEMENT CONCEPTS

UNIT I

Management: Definition – Nature – Scope and functions – Evaluation of management thought – Relevance of management to different types of organization like Hospitals, Universities, Hostels, Social Service organizations, etc.

UNIT II

Planning: Nature, importance and strategic considerations in planning – Planning premises – Components of planning as objectives, policies, strategies, procedures, methods, rules, projects and budgets – Making plans effective – Planning and decision making.

UNIT III

Organising: Nature, purpose and kinds of organization – Structure – Principles and theories of organization – Departmentation – 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, importance and techniques.

UNIT V

Controlling: Objectives and process of control – Devices of control – integrated control – Special control techniques – Co-ordination – Need and techniques.

UNIT VI

Recent trends and new perspectives in management: Strategic alliances –Core competence – Business process reengineering – TQM – Benchmarking.

REFERENCE BOOKS:

1. Stoner and Wanker, Management, Prentice Hall.
2. Koontz and O'Donnel, Management, A Systems Approach, Tata McGraw Hill.
3. Weihrich and Koontz, Management – A Global Perspective, McGraw Hill.
4. John Argenti, Management Techniques – A Practical Guide.
5. Gene Burton & Manab Thakur, Management Today: Principles and Practice, TMH.

Paper 2: FINANCIAL MANAGEMENT

UNIT I

Financial Management: An introduction – Concept, nature, evaluation and significance – Finance functions – Managerial and operative – Investment – Function, meaning and scope – Financing function – Meaning and scope – Dividend function – Goals of Financial Management – Types – Maximisation of profit, profitability/ wealth/ liquidity/ solvency – Minimisation of risk, cost of capital, dilution of management control etc. – Risk – Return trade off – Maximisation and minimisation vs optimisation.

UNIT II

Long Term Capital Resources – Equity and debt sources – Equity share, preference shares and debentures as sources of long term capital – Relative merits, demerits and uses – Significance of convertible issues and right issues – Borrowings from term lending institutions – The institutional framework – Types of assistance – Public deposits.

UNIT III

Working Capital: Concept and types – Determinants – Financing approaches – Conservative – Aggressive and hedging approaches – Their risk – Return features and significance – Sources of working capital finance – Working capital financing by commercial banks.

UNIT IV

Capital Planning – Determinants of capital structure – Optimum capital structure – Capital structure theories – Net income and net operative income theories – M.M. Theory – Traditional theory – Their assumptions – Significance and limitations.

UNIT V

Cost of Capital Concept – Cost of debt, equity, preference share capital, retaining earning – Weighted average cost – Book weight, market weight – Marginal cost of capital use and computations.

Capital Budgeting: Concept – Significance – Methods of appraisal: Payback periods, ARR, IRR, NPV, Simulation and Certainty equivalent methods.

UNIT VI

Leasing: Concept – Types – Significance – General considerations – Economics of leasing – Evaluation – Present value and IRR methods – Leverage – Concept – Types – Degree of operative leverage – Financial leverage and total leverage – Implications of high and low degrees of leverages.

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.

REFERENCE BOOKS :

1. Prasanna Chandra : *Financial Management*.
2. Van Horne: *Financial Management*.
3. Khan and Jain: *Financial Management*.
4. Weston and Briham: *Managerial Finance*.

Paper 3: MARKETING MANAGEMENT

UNIT I

Marketing: Meaning – Scope – Importance – Approaches to the study of Marketing – Marketing Concept – Market Segmentation: Meaning – Bases for segmentation – Uses. Marketing Mix: Four P's in marketing – Marketing Planning – Importance – Types of planning.

UNIT II

Marketing Environment – External factors – Internal factors – Consumer Behaviour – Meaning and importance – Consumer buying process – Determinants of consumer behaviour — Theories and their relevance to marketing.

UNIT III

Product Mix Management: Product planning and development – New Product development – Product Life Cycle – Meaning – Stages – Managing PLC – Product positioning – Branding – Packaging.

UNIT IV

Price Mix Management: Factors affecting pricing – Pricing and pricing policies – Objectives – Procedures – Methods of price fixation – Administered and regulated prices.

Physical Distribution Mix: Distribution channel policy – Types – Factors determining choice of channel – Channel management – Middlemen functions.

UNIT V

Promotional Mix: Personal selling Vs Impersonal selling – Personal selling process – Steps in selling – Compensation plans – Evaluation of salesmen performance – Advertising: Importance – Objectives – Media planning and selection – Factors influencing selection – Advertising copy – Layout – Evaluation of advertising – Advertising budget – Sales Promotion methods – Publicity – Sales promotion tools.

UNIT VI

Marketing Research & Marketing Information System: Meaning – Scope – Need – Elements – Research Process – Steps involved – Consumerism: Meaning – Consumer rights – Consumer movement in India – Salient provisions of Consumer Protection Act.

REFERENCE BOOKS :

1. William Stanton: *Fundamentals of Marketing*, McGraw Hill.
2. Mamoria & Joshie: *Fundamentals of Marketing*.
3. Armstrong and Kotler: *Principles of Marketing*.

Paper 4: PRINCIPLES OF PERSONNEL MANAGEMENT

UNIT I

Personnel Management – Definition – Objectives and functions – Role and structure of personnel function in organizations – Personnel principles and policies.

UNIT II

Human Resource Planning – Characteristics – Need for planning – HRP process – Job analysis – Job design – Job description – Job specification.

UNIT III

The Selection Process – Placement and induction – Training and development – Promotion – Demotions – Transfer – Separation.

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Employee maintenance and integration – Welfare and safety – Accident prevention – Administration of discipline – Employee motivation – Need and measures.

UNIT VI

Personnel Records/Reports – Personnel research and personnel audit – Objectives, scope and importance.

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2. Arun Monappa, Industrial Relations, Tata McGraw Hill, 1987.
3. Dale Yodder, Paul and Standohar D, Personnel Management and Industrial Relations, Sterling Publishers, 1990.
4. David A Decenzo and Stephen, Robbins P, Personnel/Human Resource Management, Prentice Hall, 1955.

Paper 5: BUSINESS ENVIRONMENT

UNIT I

Business Environment: Concept – Significance – Factors – Environmental influence on business – Environmental Scanning for business planning.

UNIT II

Social and Cultural Environment: Demographic trend – Indian social structure – Caste and communal systems – Interplay of various systems.

UNIT III

Entrepreneurial Culture: Emerging entrepreneurial class – Ethos: Business ethics – Meaning – Need – Enforcing agencies – Social Responsibility: Responsibility towards various interest groups – Social cost benefit analysis.

UNIT IV

Political Environment: Fundamental rights – Directive principles of State Policy – Centre-State relations – Impact of political environment on business - Economic Environment: Basic economic systems – Capitalism, socialism, communism, mixed economy – Characteristics of Indian economic system.

UNIT V

State Policies: Monetary policy – Control of money supply and credit control impact on business – Fiscal Policy – Public debt, budgets, direct and indirect taxation impact on business – Industrial Policy – New industrial policy.

UNIT VI

Technological Environment: Choice of technology – Problems in selecting appropriate technology – Implications to business.

REFERENCE BOOKS :

1. Adhikary: *Business Environment*.
2. Dutt and Sundaram: *Indian Economy*.
3. Srinivasan N P and Gupta: *Entrepreneurship Development*.
4. Cherunilam: *Business and Government*.
5. Mamoria and Mamoria: *Business Planning and Policy*.

Course : **P.G. Diploma in Hospital Administration**
Mode : Distance Education
Duration : One year
Eligibility : Any degree from a recognised University
Medium : English

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Subject Code	Title	Total Marks
1	Principles of Hospital Management	100
2	Hospital Office Management	100
3	Health Policy and Health Care System	100
4	Hospital Support Services	100
5	Human Resource Management in Hospitals	100
	Total	500

Paper 1: PRINCIPLES OF HOSPITAL MANAGEMENT

UNIT I

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 II

Hospital Organisation – Meaning – Structures – Organisation Chart – Delegation Vs Decentralisation – Departmentation – Organisational competence – Core competence – Strategic alliances.

UNIT III

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

UNIT IV

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

UNIT V

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

UNIT VI

Performance of Evaluation – Methods of evaluation – Quality assurance – Total Quality Management (TQM) – Meaning – Organising TQM – ISO Certification for hospitals – Hospital audit – Meaning and importance.

REFERENCE BOOKS:

1. Koontz and O'Donnel , Essentials of Management
2. Griffin, Management.

Paper 2: HOSPITAL OFFICE MANAGEMENT

UNIT I

Office management – Meaning – Importance of office in hospital management – Duties and responsibilities of hospital manager – Essential qualities.

UNIT II

Office Organisation: Principles – Organisation Charts – Office Supervisor – Office accommodation and layout – Office furniture – Physical conditions – Office Systems: Meaning – Purpose – Importance – Principles – Office procedure – Purchase related correspondence: Quotation, Order, Invoice, Despatch advice, Complaint and settlement – Mail Handling Systems: Handling of inward mail and outward mail.

UNIT III

Front Office Management: Reception – Enquiries – Registration of Patients – Admission and discharge formalities – Billing.

UNIT IV

Records Management: Meaning – Importance – Medical records – Uses – Values – Forms and Design: Medical forms – Types, objects, control - Filing – Classification of files – Methods of Filing – Advantages – Essentials of a good filing system – Filing equipments – Indexing – Types of Index – Office Stationeries and Supplies: Types – Selection – Purchase – Regulating consumption.

UNIT V

Equipments and Machines: Office and medical equipments – Furniture – Office machines: Object, types – Mechanisation of office work – Types – Advantages – Safeguarding and maintaining equipments: Breakdown maintenance – Preventive maintenance.

UNIT VI

Human Relations in Hospitals: Need and importance – Maintaining cordial relations – Employees welfare – Discipline – Code of Discipline – Handling of grievances.

REFERENCE BOOKS:

1. Prasantha Ghosh K, 'Office Management', Sultan Chand and Sons, New Delhi, 1995.
2. Denyer JC and Josephine Shaw, 'Office Management', ELBS, London, 1982.
3. William H Leffingwell and Edwin M Robinson, 'Textbook of Office Management', TMH, New Delhi, ed.3, 1986.
4. Rajendra Pal and Korlahalli JS, 'Essentials of Business Communication', Sultan Chand and sons, New Delhi, 1999.

Paper 3: HEALTH POLICY AND HEALTH CARE SYSTEM

UNIT I

Demography Trends: World population trends – India n population trends – Demographic structure and health implications.

UNIT II

Health Policy: Meaning – Need – National health po licy – Features – National health programmes in India – Health planning – Plan ning under Five Year Plans – Plan outlays.

UNIT III

Health Care: Concept of health care – Levels – Hea lth care system in India – Structure of Government Machinery – Private, Govern ment, Corporate Hospitals.

UNIT IV

Organisations for Health: Voluntary health agencies in India – Indian Red Cross Society – Indian Council for child welfare – Tuberculosis Association of India – PAI – Rockfeller Foundation – Ford Found ation – CARE – International organisations – WHO – UNICEF – UNDP.

UNIT V

Health Economics: Role of economics in health sector – Linkages between health and development – Nature of demand and suppl y in health economics – Input and output in health economics – Issues in ec onomics of health.

UNIT VI

Cost-Benefit Analysis: Cost-benefit analysis in health care services.

REFERENCE BOOKS:

- 1 Park K, Text Book on Hygiene and Preventive Medicine, Banarsidas, Bhanoy.
- 2 Francis CM & Mario Ode Sonza, Hospital Administration, Jaypee Bros, New Delhi.
- 3 Study material on Hospital Administration-Vol.II, Health Care Systems in India.
- 4 Study Material-Vol.III, Health and Family Welfare Management.

Paper 4: HOSPITAL SUPPORT SERVICES

UNIT I

Principles and methods of organizing – Clinical and support services for hospitals – Role of supportive services/ departments in the hospital management.

UNIT II

Nursing Care and Ward Management – Meaning – Importance – Duties and responsibilities – Documentation and records.

UNIT III

Emergency Services: Ambulance service – Meaning – Importance.

UNIT IV

Laboratories for Investigation: Laboratory rules – Conduct – Housekeeping – General rules of safety – Safety in the laboratory – Blood bank management.

UNIT V

Linen and Laundry: Meaning – Importance – Type of service – Laundry arrangements – Washing materials – Washing arrangements.

UNIT VI

Dietary Services and Hospital Diets: Important and functions – Equipment – Store – Day store – General kitchen – Special diet kitchen – Food distribution.

REFERENCE BOOKS:

1. Llewellyn Davies R, & Macaulay H.M.C, Hospital Planning and Administration, Monograph series, Geneva, W.H.O, Jaypee Brothers.
2. Park K, Text Book on Hygiene and Preventive medicine, Banarsidas Bhanot.
3. Francis CM & Mario C de. Souza, Hospital Administration, 3rd ed., Jaypee Brothers, N. Delhi.
4. George, MA, The Hospital Administrator, Jaypee Brothers, N.Delhi, 2003.
5. Hospital Medical International Pvt. Ltd., Hospital Administration, Office Journal of I.H.A
6. Kusum Samant, Hospital Ward Management, Vora Medical Publications, Mumbai.

Paper 5: HUMAN RESOURCE MANAGEMENT IN HOSPITALS

UNIT I

Human Resource Management: Definition – Nature and scope – Objectives – Functions – Role of HRM in hospitals - Human Resource Planning: Nature and scope – Objectives – Need and importance – Human Resource planning process – Job analysis – Job description – Job specification.

UNIT II

Recruitment and Selection of Employees: Recruitment policy – Sources, methods – Selection Process: Tests, Interviews, Kinds – Placement – Induction.

UNIT III

Training of Employees: Training needs – Identification – Training methods and evaluation of training – Promotions – Policy – Transfers – Types – Dismissals.

UNIT IV

Wage and Salary Administration: Meaning – Purpose – Developing wage and salary structure – Job evaluation – Working conditions – Safety – Welfare – Employees' health services.

UNIT V

Organisational Behaviour: Individual Behaviour – Personality – Learning – Attitudes – Perception – Motivation – Ability – Their relevance to organisational behaviour in hospital management – Group Behaviour – Group dynamics – Group norms – Group cohesiveness – Their relevance to organisational behaviour.

UNIT VI

Organisational culture – Meaning, significance – Organisational climate – Implications on organisational behaviour – Organisational Change – Need and nature – Causes of change – Resistance to change – Management of change in hospitals.

REFERENCE BOOKS:

1. Goel R.C, HRM in Hospitals, Prentice Hall of India.
2. Venkataraman C.S & Srivastava B.K, *Personnel Management and Human Resources*, Tata McGraw Hill, 1991.
3. Arun Monappa, *Industrial Relations*, Tata McGraw Hill, 1987.
4. Dale Yodder & Paul D Standohar, *Personnel Management and Industrial Relations*, Sterling Publishers, 1990.
5. Freud Luthans, *Organisational Behaviour*, McGraw Hill Book Co. 1995.
6. Keith Davis, *Human Behaviour at Work*, McGraw Hill Book Co. 1991.
7. Gregory Moorehead and R.S. Griffin, *Organisational Behaviour: Managing People and Organisations*, Jaico, 1994.

Course : **P.G. Diploma in Sports Management**
Mode : Distance Education
Duration : One year
Eligibility : Any degree from a recognised University
Medium : *English*

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Subject Code	Title	Total Marks
1	Theory and Principles of Sports Management	100
2	Human Resource Management	100
3	Management of Performance	100
4	Management of Finance, Facilities and Materials	100
	Total	400

Paper 1: THEORY AND PRINCIPLES OR SPORTS MANAGEMENT

UNIT I

The meaning of management, the functions of management, the skills of management, the roles of manager, the management process in overview, the universal nature of the management process – Management and administration.

UNIT II

Philosophy, principles and theories of management.

UNIT III

Functions of management, Planning, Steps in the planning process, Rationality in planning, Planning and Decision making, problem of organizational goals, Information and planning, Directional planning, planning and sports organization.

UNIT IV

Organization: Classical principles, Bureaucracy, criticisms of bureaucracy, bureaucracy in a democracy, bureaucracy in sports organizations, open systems perspectives, technical core in service organizations, structure of authority in service organizations.

UNIT V

The constitution of a national sports organizations – The office holders of an organization and their functions meetings, problem solving and decision making.

UNIT VI

Evaluation: The goals model of organizational effectiveness, the system resources model of organizational effectiveness, the process model of organizational effectiveness – Sample question for evaluating programs, facilities and organizational relationships.

REFERENCE BOOKS:

1. Bucher Charles A, Administration of Physical education and Athletic programs,(London: The C.V. Mosby Company, 1987).
2. Mason James G and Jimpaul, Modern Sports Administration, (Englewood cliffs, New Jersry, Prentice Hall, Inc., 1988).
3. Schular Randall S and Nicholas J, Personal Management, (New York, West Publishing Company, 1983).
4. Vandezwag Harold J, Sports Management (New York, Macmillan Publ. Co. 1984).
5. Government of India report, HRD annual reports, Department of Sports.
6. Chelladurai P, Sports Management Macro Perspectives, (Canada Sports Dynamics, 1985).

Paper 2: HUMAN RESOURCE MANAGEMENT

UNIT I

Introduction of Human Resource Management Definitions, objectives, and functions of HRM, Role and structure of Human Resource function in organizations.

UNIT II

A detailed of the meaning, objectives, functions and techniques/methods of

- a) Job/Role Analysis
- b) Human Resource Planning
- c) Recruitment and selection

UNIT III

Man power requirement (key persons) – Planning, or ganization, development, recruitment, placement, training and monitoring.

UNIT IV

Behavioral Audit, Participation, Human Relations, Communication in personnel management, public relations.

UNIT V

Personal management and supervision, principles of personnel and supervisory management, qualities/qualifications of physical personnel, evaluation of physical educational personnel.

UNIT VI

Criteria of effective staff, student leadership – Leadership development and training, positions for student leaders.

REFERENCE BOOKS:

1. Bucher Charles A, Administration of Physical Education and Athletic Programmes (London: The C.V. Mosby Company) 1987.
2. Mason James G and Jimpaul Modern Sports Administration, (Englewood Cliffs, New Jersey: Prentice Hall, Inc. 1988).
3. Schular Randall S and Nicholas J, Personal Management,(New York, Quest publishing Company, 1983).
4. Vanderzvag Harol J, Sports Management (New York: Mac Millan Publishing company, 1984).

Paper 3: MANAGEMENT OF SPORTS PERFORMANCE

UNIT I

Performance Dynamics and Performance Evaluation of Psycho-Dynamics and Sports: Meaning and need for Evaluation, Evaluation Techniques (latest) in Physical Fitness variables, (Speed, Strength, Agility, Endurance Power, Flexibility), physiological variables (vital capacity, Blood pressure, Resting, Pulse Rate, Respiratory Rate, Breath holding time), Psychological variables (Anxiety, Aggression, Tension, Intraversion Extraversion), Socio-logical variables (Leadership, Co-operation, Group chosen).

UNIT II

Role of Bio-mechanics in Sports Performance: Principles of Equilibrium, Levers, Spin, Newton's laws, Friction force, Centrifugal force, Air and water resistance.

UNIT III

Sports Competitions: Structure and Dynamics – Prognostics and Selective Diagnostics.

UNIT IV

Preventive Maintenance: Break down maintenance, Sports Injury, Care and Prevention.

UNIT V

Ethics in Sports: Team and Crowd behavior, Player – Coach relationship.

UNIT VI

Preparation: Psychological and Sociological preparation of sports personnel for performance.

REFERENCE BOOKS:

1. Grathy Bryant J, Movement Behavior and Motor Learning: Lea and Febiger.
2. Grathy Bryant Psychological and Physical activity Englewood cliffs, New Jersey, Prentice hall inc.
3. Singer Rebert N, Motor learning and Human Performance Newyork, Mc.Millan Publishing Company, Inc.
4. James G. Hay, The Bio mechanics of Sports techniques.

Paper 4: MANAGEMENT OF FINANCE, FACILITIES AND MATERIAL

UNIT I

Financial administration in sports and physical education – sources of funds in sports – Funding agencies – Youth services – Voluntary agencies, Public, Private, Corporate.

UNIT II

Budget preparation in sports and games – Purpose – Principles of budgeting – Budgetary control – Accounts preparation – Preparation of receipts and payments accounts – Income and Expenditure account and Balance sheet.

UNIT III

Material management, Equipment, material, equipment needs in terms of objectives and activities – Purchasing, Policies, principle and procedures, consideration in selecting equipment.

UNIT IV

The care of equipment, storing (Indoors & Outdoors) Handling, Storing, Security. Issue, Inventories and Registers.

UNIT V

Improvisation, Modification and Standardization and modernization of equipment and material for various games and sports.

UNIT VI

Facilities management, need for infrastructural facilities, location, direction (outdoor indoor) playfield enquiry – basic concepts, planning, construction, upkeep and maintenance of playfield, indoor halls, gymnasium, swimming pools etc. multipurpose use of facilities – futuristic approach to facilities development.

REFERENCE BOOKS:

1. Bucher Charles A, Administration of Physical Education and Athletic Programs(London: The C.V. Mosby Company, 1987).
2. Mason James G and Jumpaul Modern Sports Administration, Englowood Cliffs, New Jersey: Prentice Hall, Inc., 1988).
3. Schular Randall S and Michnals J, Personal Management, (New York: West Publishing Company, 1983).
4. Vanderzwag Harold J, Sports management (New York: Mac Millar Publishing Company, 1984).

Course : **P.G.Diploma in Human Resource Management**
[2008-09 onwards]

Mode : Distance Education

Duration : One year

Eligibility : Any degree from a recognized University

Medium : English only.

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Subject Code	Subject	Total Marks	Passing Minimum
1.1	Human Resource Management	100	50
1.2	Human Resource Economics	100	50
1.3	Labour Legislations-I	100	50
1.4	Labour Legislations-II	100	50
1.5	Industrail Relations Management	100	50
	Total	500	250

Paper 1.1: HUMAN RESOURCE MANAGEMENT

UNIT 1

Human Resource Management – Definition – Objectives and functions – Role and structure of personnel function in organisations – Personnel principles and policies.

UNIT 2

Human Resource Planning – Characteristics – Need for planning – HRP Process – Job analysis – Job design – Job description – Job specification.

UNIT 3

The Selection Process – Placement and induction – Training and development – Promotion – Demotions – Transfers – Separation.

UNIT 4

Wage and Salary Administration – Factors – Principles – Compensation plan – Individual – Group – Incentives – Bonus – Fringe benefits – Job evaluation systems – Wage and salary administration in relation to personal taxation.

UNIT 5

Employee Maintenance and Integration – Welfare and safety – Accident prevention – Administration of discipline – Employee motivation – Need and measures.

UNIT 6

Personnel Records/ Reports – Personnel research and personnel audit – Objectives – Scope and importance.

REFERENCES :

1. Venkataraman C.S & Srivastava B.K, *Personnel Management and Human Resources*, Tata McGraw Hill, 1991.
2. Arun Monappa, *Industrial Relations*, Tata McGraw Hill, 1987.
3. Dale Yodder & Paul D Standohar, *Personnel Management and Industrial Relations*, Sterling Publishers, 1990.

Paper 1.2: HUMAN RESOURCE ECONOMICS

UNIT 1

Nature and Scope of Human Resource Economics: Evaluation of the HR problem – HR problems of developing economy – Concept of labour force, structure, composition and extent of Indian Labour Force participation – Basics of labour market supply and demand.

UNIT 2

Employment: Economics of employment, theories of employment, full employment technology and employment- flexibilities and rigidities in the Indian Labour Market.

UNIT 3

Wages: Economics of wages, wage theories, methods, methods of wage payment, development of rational wage system, principles of wage policy for a developing economy.

UNIT 4

Dearness Allowance: Various schemes – Concept of cost of living and price indices for computing Dearness Allowance – Extent of neutralization – Case for full and partial neutralization – Productivity – Definition, measures and gains sharing.

UNIT 5

Employee migrations – Push and pull factors – Theories – Trend and impact.

UNIT 6

Labour absenteeism – Labour turnover – Rationalization and automation – Technology and labour – Gender and labour – Exit of industries and labour.

REFERENCE BOOKS:

1. Pramod Verma, Labour Economics and Industrial Relations.
2. McConnell & Campbell R, Contemporary Labour Economics.

Paper 1.3: LABOUR LEGISLATIONS - I

UNIT 1

Factories Act, 1948: Provision's 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 – Remedies of employer against stranger – Returns as to compensation – Commission for workmen's compensation.

UNIT 3

Industrial Dispute Act, 1947: Industrial dispute – Authorities for settlement of industrial disputes – Reference of industrial disputes – Procedures – Power and duties of authorities, settlement and strikes – Lock-out – 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

Shops and Establishments Act, 1947: Definitions – Sailable provisions – Powers of the authorities.

UNIT 5

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.

REFERENCE BOOKS:

1. Bare Acts
2. Kapoor N D, Industrial Law
3. Shukla M C, Industrial Law

Paper 1.4: LABOUR LEGISLATIONS - II

UNIT 1

Payment of Bonus Act: Computation of available surplus calculation of direct tax payable 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, adjustment of customary or interim bonus linked with production or productivity – set on and set off allocable surplus, presumption about accuracy of balance sheet and profit and loss account.

UNIT 2

Payment of Gratuity Act, 1972: Payment of Gratuity – exemption – nomination – determination and recovery of the amount of gratuity.

UNIT 3

Payment of Wages Act, 1936: Objects, provisions relating to responsibility for payment of wages – fixation of wage periods, time of payment, deduction and fines – maintenance of records and registers, inspectors appointment of authorities and adjudication of claims.

UNIT 4

Minimum Wages Act, 1948: Objects, fixing of minimum rate or wages – procedure for fixing and receiving minimum wages – appointment of advisory board – payment of minimum wages, maintenance of registers and records contracting out – powers of appropriate government offences and penalties.

UNIT 5

Industrial Employment(Standing Orders) Act, 1946: Provisions regarding certification and operating of standing orders – duration and modification of standing orders – power of certifying officer – interpretation of standing orders.

UNIT 6

Trade Union Act, 1926: Registration of Trade Unions, rights, and liabilities trade unions – procedure – penalties

REFERENCE BOOKS:

- 1 Bare Acts
- 2 Kapoor N D, Industrial Laws
- 3 Shukla M C, Industrial Laws

Paper 1.5: 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.

REFERENCE BOOKS:

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.

Course : P.G.. Diploma in Yoga [2010-11 on wards]

Eligibility : Any degree from a recognized University

Duration : One year

Medium : English

Aim : To promote knowledge and skills of the students in the field of physical education.

Non – semester

Code no.	Subjects	Max. Marks	Minimum pass mark
1	Historical development of yoga and yoga in phy. Edn.	100	50
2	Scientific approaches of yoga	100	50
3	Application of yoga therapy & teaching practice	100	50
4	Yogic practices and social values	100	50

Paper – 1: Historical Development of Yoga & Yoga in Physical Education

Unit-I

The origin of yoga-definition, meaning, need and scope of yoga-aims and objectives of yoga-misconceptions of yoga-messages from bhagavat gita, bible, kuran, buddhism-patanjalis' yoga sutra, thirumoolar thirumanthiram.

Unit-II

Paths of yoga-karma yoga-bhakti yoga-jnana yoga-raja yoga-hatha yoga-patanjalis eight limbs of yoga (yama, niyama, asana, pranayama, pratyahara, dharana, dhyana, samadhi).

Unit-III

Principles of yogic practices-application of yoga in physical education-importance of yoga in physical education & sports – differences between yogasanas and physical exercises methods of teaching yogic and techniques.

Unit-IV

Preparatory movements – exercise, the suryanamaskara-asanas-classification of asanas-pranayama-types of pranayama-mudras-bandhas-kriyas: precautions, methods and uses.

Unit-V

Meditation - concept of meditation benefits -different schools of meditation: brahma kumaris-sir aurobindo, vedathiri maharishi, vallalar, vipasana and tamil siddha meditation, transcendental meditation.

References

1. George feuerestein: the yoga tradition (it history, literature, philosophy and practice)
2. Swamy satyananda saraswathi: asana, pranayama, mudra, bandha (india: yoga publications trust, munger, bihar)
3. Swami sivananda practice of karma yoga (the divine life society, shivananda nagar, p.o., u.p. Himalayas. India)
4. Dr.nagendra hr. The art and sciences of pranayama (vivekananda kendra yoge prakashana, bangalore)
5. Dr.b.natarajan: thirumantiram (a tamil scriptural classic) (sri ramakrishna math, madras)
6. Dr.k.chandrasekaran, "sound health through yoga" (prem kalyan publications, sedapatti, madurai 1999)
7. Iyengar b.k.s (1989) light on yoga, london: unwin paper backs.
8. Thirumoolar (2006), thirumantiram, madras: sri ramakrishna math.
9. Satynanda saraswati swami (2007), meditations from the tantras, munger: yoga publications trust.
10. Sivananda yoga centre (2003), the sivananda companion to meditation, newyork: simen & schuster.

Paper – 2 : Scientific Approaches of Yoga

Unit-I

Cells-tissues-various organs-muscles-bones-joints-skin-influence of yoga on digestive and reproductive system.

Unit-II

Influence of yogic practices on -nervous-endocrine-sensory-renal system.

Unit-III

Physiological benefits of asanas and pranayama-chest cage-regulation of breathing-types of breathing- influence of yoga on respiratory system and circulating system.

Unit-IV

Physiological benefits of bandhas-mudras-kriyas-meditation-nadis-chakras-kundalini shakti-psycho-neuro-immunology.

Unit-V

psycho physiological - haematological bio-chemical- neurological-metabolic changes - research evidences from various journals.

Reference

1. Dr.krishna raman: a matter of health (integration of yoga and western medicine for prevention and cure) (chennai east west books (madras) pvt. Ltd., 1998)
2. Sri ananda: the complete book of yoga harmony of body and mind (orient paper backs: vision book pvt.ltd., 1892)
3. Dr.nagendra hr. The art and science of pranayama (vivekananda kenda yoga prakashana bangalore)
4. Swami sivananda: kundalini yoga (thye divine life society, p.o. Shivananda bagar., u.p.himalayas, india)
5. Dr.hr.nagendra: yoga research & applications (vivekananda kendar yoga prakashana, bangalore)
6. Evelyne & peace (1997) anatomy and physiology for nurses, new delhi: jaypee brothers.

Paper – 3 : Application Of Yoga Therapy & Teaching Practice

Unit-I : Yogic concepts of human body role of yogic practices on asthma, arthritis, back pain and menstrual disorder.

Unit-II : Impact of yogic practices on diabetes, hypertension, coronary heart diseases & obesity, yoga & diet.

Unit-III : Application of yogic techniques on: anxiety, depression, phobia, fatigue, nervousness, neurosis, insomnia.

Power of mind - conscious mind - subconscious mind- unconscious mind – super – consciousness – unfolding latent powers of mind.

Unit-IV : Methods & benefits of practicing asanas: sitting & standing- breathing practices- simplified physical exercises-body stretching practices-suryanamaskar-basic asanas. **Standing asanas:** tadasana, ardhakatchakrasana, padahasthasana, ardhachakrasana, uttkatasana, ekapada asana, parivritta trikonasana, parsvottanasana, natarajasana and parivritta parsvakonasana. **Sitting:** padmasana, paschimotanasana,vajrasana, ushtrasana, gomukhasana and ardhmatsyendrasana.

Unit-V : Prone: makarasana, bhujangasana, salabasana and dhanurasana. **Supine:** navasana, , matsyasana, halasana, sarvangasana, chakrasana, and shavasana.

References

1. Dr.krishna raman: a matter of health (integration of yoga and western medicine for prevention and cure) (chennai east west books (madras) pvt. Ltd., 1998)
2. Sri ananda: the complete book of yoga harmony of body and mind (orient paper backs: vision book pvt. Ltd., 1892)
3. Dr.nagendra hr. The art and sciences of pranayama (vivekananda kendra yoga prakashana bangalore0)
4. Swami sivananda: practice of yoga (the divine life society, shivananda nagar p.o., u.p. Himalayas, india)
5. Swami satyananda saraswathi; asana, pranayama, mudra, bandha (india: yoga publications trust, munger, bihar)
6. Dr.j.p.n.mishra: yoga for common ailments (b.jainpublishers. Pvt. Ltd., new delhi)
7. Practical guide to applied spirituality (brahma kumaris, mount abu, rajasthan)
8. Building a value based peaceful and prosperous society (om shanti press, gyanamritt bhavan, shantivan, mount abu, rajasthan)
9. Vicente heo chin, jr: notes of self transformation. (philippine theosophical institute, philippines.)
10. Dr.jeetendra adhia: spring of inspiration(alpha international, gujarat.)
11. G.ravindran: management science conflict (manivasakar publication, chidambaram).
12. Iyengar b.k.s. (1976) light on yoga, london: unwin paper backs.
13. Karmanada swami (2008), yogic management of common diseases, munger: yoga publications trust.

Paper – 4 : Yogic practices and social values

Unit-I : Karna pidasana, ardha baddha padma paschimothanasana, marichyasana and prasrita padottasanasana. Sethu bandha sarvangasana, paryankasana, poorna ustrasana and eka pada chakrasana. Vatayanasana, garudasana, bharatvaja asana and parivritta janu sirasasana. Padma mayurasana, utthitha padmasana, bakasana and urdhva mukha paschimottanasana

Unit-II : pranayama: kapalabhati-sectional breathing-suryabhedana pranayama, chandrabhedana pranayama, nadishudhi pranayama, sadanta pranayama, ujjayi pranayama & brahmari pranayama.**kriyas:** kapalabhati, trataka, neti, dhouti, nauli & basthi.**mudras:** chin mudra, chinmaya mudra, adi mudra, brahma mudra maha mudra, aswini mudra & yoga mudra.**bandhas:** jalandhara bandha, uddiyana bandha & mula bandha.

Unit-III : Meditation: practice of different schools of meditation - saguna meditation-nirguna meditation - yoga meditation - silent meditation and introspection – lesson plan – parts of lesson plan, preparation of lesson plan for yogic practices.

Unit-IV : Interpersonal skills-drills: holistic health care positive thinking-verbal-non-verbal communication-empathy-ability to understand-stress management-conflict resolution - perception- anger management, assertiveness, dialogue process, different ways of conflict resolutions-leadership skills.

Unit-V : Inculcation of living values-co-operation, freedom, responsibility-happiness, love & peace-humility, respect, honesty-simplicity, tolerance and unity.

References

1. Yoga-asana, pranayama, mudras, bandha (vivekananda kendar yoga prakashana, bangalore).
2. Swami satyananda saraswathi: asana, pranayama, mudra, bandha (yoga publications trust, munger, bihar, india).
3. Yogiraj vethathri maharishi: simplified physical exercises, (vedathiri publications, gandhiji road, erode-1, tamil nadu).
4. B.k.s. Iyengar: the light on yoga (haper collins publications india pvt.ltd., new delhi).
5. Dr.k.chandrasekaran, “sound health through yoga” (prem kalyan publications, sedapatti, madurai 1999).
6. Satyananda saraswathi swami (2007), meditations from the tantras, munger: yoga publications trust.
7. Sivananda yoga centre (2003), the sivananda companion to meditation, newyork : simen & schuster.
8. Visharadananda swami (2007), human values, bangalore: swami vivkananda yoga prakashana.
9. Prajapita brahma kumares (2009), moral valnes, attitudes and modes, mount abn: prajapita brahma kumares ishwariya vishwa – vidyala ya.
Jagdish chander (2000), building value based peaceful and prosperons society, mount abn: prajapita brahma kumares ishwariya vishwa – vidyalaya.

Course : P.G. Diploma in Computer Applications
Mode : Distance Education
Pattern : Semester System
Duration : One year

Eligibility : Any degree from a recognised University
Medium : English

COURSE OF STUDY AND SCHEME OF EXAMINATION

Subject Code	Title	Total Marks
I SEMESTER		
1.1	Principles of Information Technology	100
1.2	Digital Computer Organisation	100
1.3	C and Data Structures	100
1.4	Office Automation	100
1.5	Computer Lab-I: Data Structures using C	100
1.6	Computer Lab-II: MS Office and Internet	100
II SEMESTER		
2.1	Object Oriented Programming and C++	100
2.2	Systems Analysis and Design	100
2.3	Visual Programming-I	100
2.4	Computer Graphics	100
2.5	Computer Lab-III: Graphics using C++	100
2.6	Computer Lab-IV: Visual Basic	100
	Total	1200

Paper 1.1: PRINCIPLES OF INFORMATION TECHNOLOGY

UNIT I

An Overview of the Revolution in Computers and Communications: From the analog to the digital age: The "New Story" of computers and communications - The six Elements of a Computer & Communications System - Communications: Development in Computer Technology, Developments in Communications Technology - Computer and Communications Technology Combined: Connectivity and Interactivity - The "All purpose Machine": The information Appliance That will change your Future - The Ethics of Information Technology.

UNIT II

Application Software: Tools for Thinking and working - Ethics and Intellectual property rights : The four types of applications software - The user interface and other basic features - Word processing - Spreadsheets - Database software - Presentation graphics software - Communications software - Desktop accessories and personal information managers - integrated software and suites - Groupware - Internet Web browsers - Specialised software.

UNIT III

Communications: Starting along the Information Highway: The practical uses of communications and connectivity - Telephone related communications services - Video/voice communication: Video conferencing and picture phones - online information services - The Internet - Shared resources: Workgroup computing, Electronic Data Interchange, and Intranets : Telecomputing and virtual offices - Using a microcomputer to communicate: Analog and Digital Signals - modems and Datacomm Software, ISDN lines, and Cable Modems - Communications Channels: Communications Networks - Local Networks - Factors affecting Data transmission - Cyberethics: Netiquette, Controversial material and censorship, and privacy issues.

UNIT IV

Storage and Databases: Foundations for interactivity, Multimedia and Knowledge Storage Capacity - Compression and Decompression - Criteria for Rating Secondary Storage Devices - Diskettes - Hard Disks - Optical Disks - Magnetic Tapes - Organising Data in Secondary Storage: Databases, Data Storage - Hierarchy and the concept of the key field - File Management: Basic concepts - File Management Systems - Data Management Systems - Types of Database Organization - Features of a DBMS - The Ethics of using Databases - Concerns about accuracy and privacy.

UNIT V

Information System and Software Development: Management Information Systems - The Six phases of System Analysis and Design - The Five Steps in Programming - Five Generations of Programming Languages - Programming Languages - Object Oriented and Visual Programming - Internet Programming - HTML, XML, JAVA and ActiveX - The Information Super Highway - Security Issues.

REFERENCE BOOKS:

1. Stacey C Sawyer, Brian K Williams, Sarah E Hutchinson, *Using Information Technology - Brief Version A Practical, Introduction to Computer and Communications*, Ed2, TMH, Unit I to IV, Ed3, TMH, Unit V
2. J Hames O'Brien, *Introduction to Information System*.

Paper 1.2: DIGITAL COMPUTER ORGANIZATION

UNIT I

Number Systems Machine Codes: Binary, Octal, Decimal and Hexadecimal number systems - Conversion from one base to another base - Use of complements - Binary arithmetic - Number codes and Character codes.

UNIT II

Boolean Algebra and Combinational Circuits: Fundamental concepts of Boolean Algebra - De Morgan's theorems - Simplification of expressions - Sum of products and products of sums - Karnaugh map simplification - Quine-McKluskey method - Two level implementation of Combinatorial Circuits - Encoder - Decoder - Multiplexer - Demultiplexer.

UNIT III

The Arithmetic Logic Unit: Construction of ALU - Integer representation - Half Adder - Full Adder - Parallel Binary Adder - Positive and negative numbers - Addition and subtraction in a parallel arithmetic element.

UNIT IV

Sequential Circuits (Elementary qualitative treatment only) Flip-Flops - Clocks - Gated Flip-Flops - Master Slave Flip-Flops - Shift Registers - Binary Counters - BCD Counters. The Memory Element: RAM - Linear select memory organization - decoders - Static and Dynamic RAM - ROM - Magnetic Disk Memories - Magnetic Tape.

UNIT V

The Control Unit: Instruction word - Instruction cycle - Execution cycle - control register - sequence of operation of control registers - controlling arithmetic operations - Typical sequence of operations. Input-Output Organization: Peripheral devices - I/O interface - Programmed I/O - Interrupts - Interrupt priorities - DMA - I/O Processors.

REFERENCE BOOKS :

1. M.Morris Mano, *Digital Logic and Computer Design*, Prentice-Hall of India.
2. Thomas C. Bartee, *Digital Computer Fundamentals*, Ed6, McGraw Hill ISE (1985).
3. Albert Paul Malvino, *Digital Computer Electronics*, Tata McGraw Hill (1986).
4. Gear, C.W, *Computer Organization and Programming*, McGraw-Hill, (1975).

Paper 1.3: C AND DATA STRUCTURES

UNIT I

Introduction to C - Character set - Identifiers and keywords - Data types - Constants - Variables declarations - operators and Expressions - Input and Output - Entering input data - Writing output data - The gets and puts functions - Branching and Looping - Nested control structures - Switch - Break -Continue - goto.

UNIT II

Function - Accessing a Function - Passing arguments to a function - Recursion - Library function - Macros -The C preprocessor - Defining and processing an Array - Passing an array to functions - Multi dimensional array - arrays and String.

UNIT III

Pointers - Passing pointers to function - Dynamic memory allocation - Arrays of pointers - Passing functions to other functions - Defining structure - Processing structure - opening and closing a data file - creating a data file - processing a data file.

UNIT IV

Introduction to Data structures - Information and meaning - Stack structure - Definition - operations - Queue structure - representation - operations.

UNIT V

Linked list - Definition - representation - operation - Singly linked list - Doubly linked list - Trees - Binary trees - Binary tree representation - Representing list as Binary Trees - Trees and their Applications.

REFERENCE BOOKS :

1. Byron Gottfried, *Programming with C*, McGraw Hill International Edition
2. Yedidyah Langsam, Moshe J. Augenstein, Aaron M. Tenenbaum, *Data Structures Using C*, Prentice-Hall, Second Edition.
3. E. Balagurusamy, *Programming in C*, Tata McGraw Hill.

Paper 1.4: OFFICE AUTOMATION

UNIT I

Windows: Working with windows elements – Windows Desktop – View Drives with My Computer - Managing files with Windows Explorer – Working with multiple windows – Office Shortcut Bar – Start and Exit Office application – Menu Commands – Toolbars – Dialog boxes – Getting help in MS-Office – Creating, Opening, Saving Files.

UNIT II

MS-Word – Creating a New Word Document – Typing, Edit, Delete Text – Editing Keys – Select Text – Moving around the Document – Moving and Copying Text – Find and Replace Text – Insert Date or Time – Spell Checking – Getting often-used phrases – Table handling – Printing mailing labels – Formatting – Make Text Bold, Italic Underline – Changing Font and Size – Change default font – Copy formatting – Align Text – Indent Text – Create bullet and numbered list – Set Tabs – Using Ruler – Change margins – Change Line, paragraph spacing – Page numbering – Headers and Footers – Set up Columns – Templates and Wizards – Printing a document – Print preview – Page Orientation - Zoom in and Zoom out pages – Mailmerge – Creating form letters – Merging a form letter with data.

UNIT III

MS-EXCEL – Working with worksheets – Entering Text, Numbers, Date or Time – Formula Bar – Fill in Data – Autocomplete – Entering formulas - Absolute addresses in formulas - Working with Ranges – Functions – Editing, Deleting entries – Move and Copy data – Find and Replace Data – Insert and delete Rows and Columns – Resize Columns and Rows - Formatting – Bold, Italic, Underline, Font, Size Changes – Conditional Formatting – Change alignment – Number formatting – Borders – Headers and Footers – Creating a Chart – Working with Chart object – Change chart data, chart type – Formatting chart series – Database – Building an Excel Database – Add, Edit, Delete Records – Search database – Sort Excel database.

UNIT IV

MS-POWER POINT – Create and edit Power Point presentation – Editing Text – Add or Delete a Slide – Moving from slide to slide – Change views – Create graph chart, organization chart – Format and run a presentation – Text formatting and alignment – Drawing on slides – Color Scheme – Background – Using Design Template – Auto layout – Adding speaker notes – View Slide Show – Handouts.

UNIT V

MS-ACCESS & Sharing Office Data:- Creating a New Database - Creating and saving a table - Primary Key creation - Adding, Editing and Deleting fields - Changing the view and Moving fields - Data Entry and Editing - Adding, Inserting and Deleting Records - Adjusting Column Widths - Hiding Columns - Finding Records - Sorting Records - Creating, Saving and Editing a Query - Forms - Autoform - Using Report Wizard - Creating and Printing Reports - **Sharing Office Data** – Copy and Paste using Clipboard – Insert Copied data as a link – Embed copied data in another document – Combine Excel data and charts with Word Documents – Inserting Graphics - Group related documents with Binder.

REFERENCE BOOKS:

1. Jennifer fulton, Sherri Kinkoph, and Joe Kraynak, *The Big Basics Book of Microsoft Office 97*, PHI, 1998.
2. Laura Acklen et al, *Microsoft Office 97 Professional Essentials*, EEE Que E&T, PHI (1998)

Paper 2.1: OBJECT ORIENTED PROGRAMMING and C++

UNIT I

Principles of Object Oriented Programming (OOP) - OOP paradigm - Basic concepts of OOP - Benefits of OOP - Object Oriented Languages - Applications of OOP. Fundamentals of C++ programming - Tokens, Keywords, identifiers, Variables, Operators, Manipulators - Sample C++ Program.

UNIT II

Program Control : Expressions - Control Structures - Conditional statements : IF, IF...ELSE , Nested IF - Switch - Break - Continue - GOTO - Iterative statements: FOR, WHILE, DO..WHILE - Arrays : One Dimensional - Multidimensional Arrays - Structures - Pointers.

UNIT III

Functions - Argument Passing: Pass-by-Value, Pass-by-Reference - Variables - Scope - Libraries - Recursion - Default Arguments - Overloaded Functions - Pointers to Functions - Friend - Macros and Inline Functions - Virtual Functions - Modularization.

UNIT IV

Classes and Objects - Declaration and Definition - Constructors - Types of Constructors - Destructors - Type Conversion -Operator Overloading - Inheritance - Definition - Types of Inheritance - Single - Multilevel - Multiple - Hierarchical - Hybrid - Virtual functions and Polymorphism : Managing Console I/O operations.

UNIT V

Working with Files : Classes for file stream operations - opening and closing a file - end of file - file direction - File pointers - Updating a File - Error Handling during file operations - Command line arguments.

REFERENCE BOOKS:

1. E. Balagurusamy, *Object Oriented Programming with C++*, TMH Publishing Company
2. Paul M. Chirlian, *Programming in C++*, CBS Publishers (1994)
3. Robert Lafore, *Object Oriented Programming In Microsoft C++*, Galgotia (1994)

Paper 2.2: SYSTEMS ANALYSIS AND DESIGN

UNIT I

System Concepts and System Development Life Cycle: System Concepts - Characteristics - Elements of a system - Types of Systems: Abstract, Physical, Open, Closed and Man-made Information system - Computer Based Information Systems: MIS, DSS, TPS and OAS - System Development Life Cycle - Problem Definition - Feasibility Study - Analysis - Design - Development - Implementation - Post Implementation and Maintenance - System Analyst : Interpersonal Skills - Technical Skill - Communication Skills - Role of Systems Analyst.

UNIT II

System Analysis : Bases for planning in System Analysis - Preliminary Investigation - Determining the User's information requirements, Case Scenario, Problem Definition and Project Initiation, Background Analysis - Fact Finding Techniques : Interview - Questionnaire - Record Review - Observation. Systems Analysis: Analysing Systems data - Feasibility Study: Technical, Economical and Operational - Steps in Feasibility Analysis, Feasibility Report, Oral Presentation - Systems Costs & Benefits: Categories of Cost - Benefits - Cost Benefit Analysis: Break Even, Present Value, Pay Back and Cash Flow. Analysis Tools : Data flow concept - Data Flow Diagram - Data Dictionary - Decision Table - Decision Tree - Structured English.

UNIT III

System Design : Process and stages of System Design : Logical and Physical Design. Design Methodologies: Structured design - Form Driven Methodology - Major Development Activities - Input Output and Form Design: Input Design : Capturing Data for input - Input Validation - Input Design of on-line systems. Output Design - Printed, Display and Audio. Forms Design : Definition - Classification of Forms, Requirements of Forms Design - Types of Forms - Forms Control.

UNIT IV

File and Database Design: File concepts - Types of Files - Methods of File Organization - Sequential - Direct - Indexed - Database Design: Database concept - Types of Databases : Hierarchical, Network and Relational. System Development: Software Design - Top Down Approach - Flow Chart: System Flow Chart - Program Flow Chart - HIPO - IPO - VTOC - Warnier Orr Diagram - Structured Walkthrough - Quality Assurance - Levels of Assurance - System Testing - Special Systems Tests.

UNIT V

System Evaluation Implementation and Maintenance: Training Personnel - Training Methods - Conversion: Conversion Methods - Parallel, Direct, Pilot and Phase-in. Conversion Plan - Site Preparation - Data and File Preparation - Post Implementation Review - System Maintenance : Corrective - Adaptive - Hardware and Software Selection : Computer Industry - Software Industry - Procedure of Hardware and Software Selection: Major phases in Hardware and Software selection - Evaluation Process - Financial considerations.

REFERENCE BOOKS

1. Elias M.Awad, *Systems Analysis and Design*, Galgotia Publication Pvt. Ltd.(1990)
2. James A. Sen, *Analysis and Design of Information System*, McGraw Hill(1985)

Paper 2.3: VISUAL PROGRAMMING-I

UNIT I

Windows – Starting Visual Basic – Overview of developing a VB application – VB environment and Help System - Toolbars – Toolbox and Custom Components – Project Explorer – Add-Ins Menu – Starting a New Project – Writing simple programs – Form – Property Window – Common properties – Event Procedures – Printing a Form

UNIT II

Toolbox – Creating Controls – Working with multiple Controls – Command Button – Properties – Text Box – Label Box – Option Button – Scroll bars - Image Controls – Timers – Running an application - Sequence of Events triggered for a form – Code Window – Editing Tools –**Programming:** Statements in VB – Variables – Setting properties with Code – Data Types – Explicit Type Declaration – Strings – Operators – Constants – Input Box – Displaying Information – Font – Format function – Picture Box – RichText Box – Printer Object – Terminate loops – For ... Next – Indeterminate loops – Do loops – Making Decisions – If Then Else – Block If – Select Case – GoTo

UNIT III

Functions – Built-in functions – String functions – Numeric functions – Date functions – Financial functions – User defined functions and procedures – Writing a function with parameters – Scope of variables – Sub Procedures – Uses of functions and procedures – Using object browser to navigate user-defined functions and procedures – **Arrays** – Static and Dynamic Arrays – Assigning one array to another – Passing an array to functions and procedures – User Defined data type – Type statement – Organizing information via controls – Control array – Load and Unload statements – List and Combo Boxes – Grid Controls – FlexGrid control – Events and Methods

UNIT IV

Handling Multiple forms – Modality – Global procedures and variables – Modules - Sub Main – DoEvents – Error Trapping – Object Oriented Programming – Object browser – Built-in objects – New and Nothing keywords – Control Collections – Writing OOP in VB – Creating Classes – Property Procedures – Creating Menus – Menu Editor – MDI forms – Building Context Sensitive Help with Windows Help Engine – Debugging Tools – **Graphics** handling in VB – Screen Scales – Drawing geometric objects – Coordinates – Draw width, Style – Animation

UNIT V

File handling – Sequential, Random Access and Binary Files – Reading and Writing Statements – File System Controls – Drive, Directory and File List Boxes – Communicating with other Windows Applications – Clipboard - Shell Function – AppActivate Statement – SendKeys - OLE – OLE automation – Drag and Drop – **Database Development** – Using Data Control – Events and Methods – SQL statements – Building ActiveX controls

REFERENCE BOOKS:

1. Gary Cornell, *Visual Basic 6 from the Ground Up*, Tata McGraw-Hill, 1999.
2. Content Development Group, *Visual Basic 6*, Chennai, TMH.
3. *Teach Yourself Visual Basic 6*, SAMS Publishing.

Paper 2.4 COMPUTER GRAPHICS

UNIT I

Introduction : Overview - Brief History - Applications of Computer Graphics - Video Display Generation - Input Devices - Hard copy Output Devices - Graphics System Software. Output Primitives : Point Plotting - Line Draw Algorithms - Using Equation of a Line - DDA - Bresenham's algorithm - Circle Generation Algorithms - Drawing Ellipse - Other Geometric Shapes - Region Filling Techniques.

UNIT II

Two Dimensional Transformations : Transformation Principles - Basic Transformations - Matrix Representation - Composite Transformations. Two Dimensional Viewing and Clipping : Viewing Transformations - Windows and viewports - Aspect Ratio - Clipping and Shielding : Point Clipping - Line segment clipping - Convex Polygon clipping - Sutherland Hodgman Algorithm.

UNIT III

Three Dimensional Transformations: Concepts - Basic Transformations: Translation, Scaling, Rotation and Mirror Reflection - Matrix Representation - Composite Transformations.

UNIT IV

Three Dimensional Viewing and Clipping : Viewing Process - Three Dimensional Viewing : Specifying Projection Plane and view volume - Clipping : Clipping against a finite view volume - Cohen Sutherland Algorithm - Constructing a three dimensional view - Hidden Surface Algorithm : Depth Comparison - Z-Buffer Algorithm.

UNIT V

User Interface Design : Components of User Interface - The User's Model - The Command Language - Styles of Command Language - Information Display - Feedback

REFERENCE BOOKS:

1. M. Newman and F. Sproull, *Interactive Computer Graphics*, McGraw Hill
2. Plastok and Gordon Kalley, *Computer*, McGraw Hill.

Practical 1.5: Computer Lab-I: DATA STRUCTURES USING C

SYLLABUS : C - Data Structures ARRAY, STACK, QUEUE, LINKED LIST, RECURSION

TOTAL MARKS : 100 (1 OR 2 PROBLEMS TO BE SOLVED IN UNIVERSITY PRACTICAL EXAMINATION)

BREAK-UP OF MARK:

RECORD NOTE BOOK:	5
ALGORITHM / FLOWCHART	: 15
PROGRAM	: 35
DEBUGGING & EXECUTION	: 35
RESULT	: 10

Model Problems

1. Write a C program to convert a given number into words for numbers 1 to 5. e.g. 1 to ONE, 2 to TWO and 5 to FIVE
2. Write a C program to find the roots of a quadratic equation
$$aX^2 + bX + c = 0$$
3. Write a C program to find the roots of a quadratic equation using function definition.
$$aX^2 + bX + c = 0$$
4. Write a C program for matrix manipulation (Addition, Subtraction and Multiplication) using function.
5. There are 10 students in a class. Their names and marks in three different subjects are given. If a student takes more than 40 marks in each subject, then he is declared 'PASS' . Otherwise 'FAIL'. Write a C program to do the above using structure concept.
6. A man is paid at the hourly rate of Rs.15/- per hour for the first 45 hours worked. Thereafter, overtime is paid at 1.5 times the hourly rate for the next 25 hours and 2 times the hourly rate for further hours worked. Write a C Program to input the no. of hours worked per week, calculate and Print his gross weekly wage.
7. Write a C program to implement all string operations using switch statement.
8. Write a C program to find the factorial of a given number using recursion.
9. Write a C program to find a word is PALINDROME or not.
(Ex. The word MALAYALAM is a PALINDROME and the word TAMIL is not a PALINDROME)
10. Write a C program to read 10 values to an array variable. Use pointers to locate and display each value.
11. Write a C program to copy contents of one file to another file
Write a C program to implement push and pop operations on stack.
13. Write a C program to evaluate the given mathematical expression using stack.

14. Write a c program to implement insert and delete operations on Linked List structure.
15. Write a C program to implement insert and delete operations on Queue using array concept.
16. Write a C program for linked list implementation of Queue operations.
17. Write a C program to sort 10 Nos. in Ascending order with naming of variable and the value before and after sorting.
18. Define Selection sort write a C program to sort a set of elements using selection sort.
19. Write a C program to sort a set of elements using Insertion sort.
20. Write a menu driven program in C to find an element using Linear and binary search methods.

* * *

Practical 1.6: Computer Lab-II: MS OFFICE AND INTERNET

SYLLABUS : MS-WORD, EXCEL, ACCESS and HTML

TOTAL MARKS : 100 (1 OR 2 PROBLEMS TO BE SOLVED IN UNIVERSITY

PRACTICAL EXAMINATION)

BREAK-UP OF MARK:

RECORD NOTE BOOK:	5
ALGORITHM / FLOWCHART	: 15
PROGRAM	: 35
DEBUGGING & EXECUTION	: 35
RESULT	: 10

Model Problems

MS-WORD

1. Prepare your resume with your photograph inserted. Use Table, bullets and different color features.
2. Prepare the First page of M.C.A. PRACTICAL RECORD NOTE book with picture insertion and alignment.
3. Prepare a news report using two columns, insert a picture in the first column and make the text flow around it.
4. Type lecture notes and provide audio explanation with the help of sound files.
5. Prepare an invitation for a function to be conducted in your institution. Use different text orientation and pictures to make it attractive.
6. Create a table of student data that contains REGNO, NAME, ENGLISH, TAMIL, and MATHS marks. Add a new column named TOTAL and find the row total for each student.

Add two rows named TOTAL, AVERAGE. Find the total and average values for each subject mark. Convert the table to text.

7. Create a new document and type the following mathematical expression:

$$\int_0^{\infty} xdy / dx \sum_{i=1}^{100} ax_i + b + |A| \pm \sqrt[3]{ax + b} \lambda$$

8. Create a form letter that informs the customer about the date of maturity of a deposit amount in a commercial bank and request the customer for renewal. Mailmerge it with an Access Database containing all the customer data. Prepare letters for customers whose due date falls in a specific range of dates.

MS-EXCEL

1. Create the following worksheet in EXCEL for Electricity Bill

CONSUMER NO.	TYPE	NAME	PMRCMR	UNITS
101	D	RAM545		645

i) Add data for 10 consumers with type 'D' for domestic user and type 'I' for Industrial user.

ii) Find UNITS column for each customer and calculate bill using the slab given

below:

TYPE D CONSUMER

UNITS CONSUMED	RATE/UNIT Rs.
FIRST 100	0.80
NEXT 200	1.25
REMAINING	2.00

TYPE I CONSUMER

UNITS CONSUME D	RATE/UN IT Rs.
FIRST 100	1.10
NEXT 900	2.40
REMAININ G	3.50

iii) All the consumers should be charged a minimum bill of Rs. 20/- even if their bill amount is below Rs. 20/-

2. Create the following Inventory Worksheet in MS-EXCEL :

ITEMNO	NAME	PRICE	QUANTITY	STOCK	REORDER	PURCHASED
			ISSUED	ON HAND	LEVEL	

101	BOLTS	2.00	1000	500	300	800	200
-----	-------	------	------	-----	-----	-----	-----

i) Enter all the data items except QUANTITY ON HAND for 10 items.

ii) Find QUANTITY ON HAND using the formula

STOCK QUANTITY = QUANTITY ON HAND + QUANTITY
PURCHASED – QUANTITY ISSUED

Find total stock value in inventory as a product of total quantity hand and total price(\sum quantity on hand * \sum price). Display all the items in red color whose quantity on hand is below reorder level.

3. Create a Worksheet in Ms-Excel with following columns:

Employee number, Employee Name, designation, Basic pay, Hra, Da, Lic, Pf,

Grosspay, Netpay.

i) Type data for empno,empname,designation,Basicpay and Lic,Pf

ii) Calculate Hra = 20% of Basic

Da = 30% of Basic

Grosspay = Basic +Hra + Da

Netpay = Grosspay -(Lic +pf)

iii) Draw the bar chart between emp name and Netpay

iv) Sort the designation column and employee column name at a time.

4. Create a Worksheet with the following columns.

Salesman number, Salesman Name, City, Product Name, Sale Amount.

Add three records for 5 different salesmen who have carried out sales of different products in different cities. Find the following:

i) Citywise Total Sales

ii) Salesmanwise total sales

iii) Productwise total sales iv) Grand Total sales.

5. Create Internal Marks assessment worksheet with the following columns:

REGNO, NAME, SEX, TEST1, TEST2, TEST3, TEST AVERAGE,

ATTENDED DAYS, ATTENDANCE % , BONU MARK, INTERNAL MARK

i) Add data for 20 students (Test marks are out of 30)

ii) Compute TEST AVERAGE as average mark of best two out of three tests.

iii) Maximum number of working days is 50. Each student should secure atleast 80% attendance.

iv) Provide 1 bonus mark for each 1% attendance above eligibility limit 80%

v) Compute Internal mark as TEST AVERAGE+Bonus Mark

vi) Sort the data in alphabetical order of name.

vii) Filter data for male and female students alone, who have attendance % below 80.

6. The following were the observations made in certain experiments for the values y and given the values of x.

X : 1 2 3 4 5 6 7 8 9 10

Y : 10 30 45 25 15 28 40 32 15 35

Compute the Following:

- i) Find Mean, Median and Standard deviation
- ii) Correlation coefficient between x and y.
- iii) Draw the Bar Chart and Shading cells.
- iv) Draw a Chart in Excel and Paste it in Word.

7. Create two worksheets containing day to day house hold expenses for the months

January and February 2005, with the following columns:

ITEM	AMOUNT
Stationery	25.00

- i) Add 10 different items as shown above, for two months in two different worksheets.
- ii) Consolidate both the months data and find the total expenses on each item.
- iii) Find the Total expenses for two months.
- iv) Find the maximum and minimum expense amount.

8. Create a data table to create a ready reckoner table for a commercial bank that contains simple interest for Rs. 1,000/- with varying period and interest rates. Create the table as shown below:

READY RECKONER TABLE FOR INTEREST CALCULATION PER 1000

PERIOD	INTEREST RATE									
	3%	4%	5%	6%	7%	8%	9%	10%		
11%										
1	30	40	50	60	70	80	90	100	110	
2										
3										
4										
5										
6										

- 7
- 8
- 9
- 10

9. Draw Line, Bar, PIE charts for the data given below:

ABC COMPANY LIMITED

YEAR	SALES	COST	PROFIT
1991	1000	400	600

Add data for 10 years from 1991 to 2000. Provide titles, legends, grids and data labels.

MS-ACCESS

Instructions: Open a New database and add tables

1) Create employee table with the fields EMPNO, NAME, AGE, SEX, STREET, CITY, PIN, SALARY.

Add data for 20 employees

- i) Write a query to display all the male employees whose salary is between 1000 and 5000 and living in city "CHENNAI".
- ii) Write a query to display all the female employees whose ages are in the range 50-60
- iii) Show all the records in the table for the city "TRI CHY" by filtering.

2) Create STUDENT table with the following fields REGNO,NAME, MARK1,

MARK2, MARK3. Create ADDRESS table with fields REGNO,STREET, CITY

and PIN.

- i) Write a query to display REGNO,NAME and total of all the three subject marks.
- ii) Write a query to display REGNO,NAME, STREET, CITY, PIN and total of all the three subject marks.

3) Create Inventory table with fields ITEMNO,NAME,QUANTITY ON HAND,

REORDER LEVEL.

- i) Create a form in custom format.

- ii) Create a query REORDER to show all the items
- iii) Create a macro that executes REORDER query automatically.

4) Create STUDENT table with fields
 REGNO,I1,E1,I2,E2,I3,E3,I4,E4,I5,E5(internal
 and external marks in five subjects) and table SUBJECT with fields
 SCORE1,
 SNAME1, SCORE2,SNAME2, SCORE3,SNAME3,
 SCORE4,SNAME4, SCORE5,SNAME5 (Subject
 Code and Subject Names for Five subjects). Create a report to
 print marksheets for all the student in the following format.

**ALAGAPPA UNIVERSITY, KARAIKUDI
 STATEMENT OF MARKS**

REGNO:05315001

NAME : RAMANA S

SUBCODE	SUBJECT NAME	INTERNAL	EXTERNAL	TOTAL	RESULT
101	SYSTEMS ANALYSIS	20	40	60	PASS
102	DBMS	22	50	72	PASS
103	VISUAL PROGRAMING	20	38	58	PASS
104	INTERNET PROGRAMMING	21	27	48	FAIL
105	COMPILER DESIGN	28	30	58	PASS
TOTAL				248	

1. Condition for passing a subject : A minimum of 35 marks in external and 50 marks in total.
 2. Grand total should not include total in failed subjects.
 3. Display FAIL in red color.
- 5) Create two tables SALES1,SALES2 and join them to produce a Third table

SALES3.

HTML (INTERNET) – PROBLEMS

1. Create HTML page to display 10 courses and their highlighted features, conducted by an educational institution in a colorful format.
2. Create HTML page to display the pictures of Elephant and Monkey. Link to another page when user clicks over the picture. The linked page should display features of the animal clicked.
3. Create HTML page that receives employee name, age, street, city, pin data. Receive male/female and married/unmarried details through option buttons. Receive hobbies through check boxes.
4. Create HTML page that divides the screen space into three frames(one vertical and two horizontal of equal size). Display three different files in them with scrolling titles relevant to their contents.
5. Create HTML page that plays video and audio files.

Practical 2.5: Computer Lab-III: GRAPHICS AND C++

SYLLABUS : LINE, CIRCLE, ELLIPSE DRAWING, 2D TRANSFORMATIONS 3D TRANSFORMATIONS, SHADING, CLIPPING, ANIMATION

TOTAL MARKS: 100 (1 OR 2 PROBLEMS TO BE SOLVED IN UNIVERSITY

PRACTICAL EXAMINATION)

BREAK-UP OF MARK:

RECORD NOTE BOOK:	5
ALGORITHM / FLOWCHART	: 15
PROGRAM	: 35
DEBUGGING & EXECUTION	: 35
RESULT	: 10

Model Problems

1. Create a base class shape, which contains the common elements of circle, triangle and rectangle, from which you derive three classes called ball, rect and tria. Include two member functions set() to set coordinates and draw() which draws them. Write a main() program to exercise this class using graphic-mode graphic functions.
2. Write a C++ program to draw a straight line using simple DDA technique.
3. Write a C++ program to draw a straight line using Simple Bresunhams line algorithm.
4. Write procedure and a C++ program to draw nonlinear object ellipse.
5. Develop a program to do the following :
 - a) Draw a triangle ABC, translate it to a distance and then rotate it through an angle clockwise.
 - b) With the same triangle, reverse the operations as in case (a)
 - c) Check whether the result figures of case (a) and case(b) are one and the same or different.
6. Write procedure and a C++ program to draw non-linear object circle and three Concentric Circle.
7. Write a C++ program to draw non-linear objects arcs and curve.
8. Write a C++ program to show graphical transformation (Scaling, Rotation, Translation) of a two dimensional object.
9. Write a C++ program to show graphical transformation on three dimensional object.

10. Write a C++ program to manipulate the graphical object using SHADING technique.

11. Implement the polygon clipping algorithm using C++ graphics mode graphics functions.12. Implement the Bresenham's algorithm for drawing circle and ellipse using C++ in graphics mode.13. Draw a circle. Divide into four quadratic and fillup different color for each quadrant.14. Draw a ball. Perform animation on it.

15. Draw any 3-D object and perform animation on it.

* * *

Practical 2.6: Computer Lab-IV: VISUAL BASIC

SYLLABUS : VISUAL BASIC (EXE, ActiveX, Data Report)

TOTAL MARKS : 100 (1 OR 2 PROBLEMS TO BE SOLVED IN UNIVERSITY

PRACTICAL EXAMINATION)

BREAK-UP OF MARK:

RECORD NOTE BOOK:	5
ALGORITHM / FLOWCHART	: 15
PROGRAM	: 35
DEBUGGING & EXECUTION	: 35
RESULT	: 10

Model Problems

1. Write a VB project that receives a year number from a text box and month name from list box and displays number of days in the given month. Take care of leap years. Use Lost Focus event for list box.
2. Write a VB project that stores 10 employee records with fields EMPNO, NAME, AGE, SEX and SALARY, in an array. Display data fields in text boxes and provide command buttons to move to desired record.
3. Write a VB project that receives a foreign currency value selected from a list box and converts it into equivalent Indian rupees. (e.g. USD 42.45, Sterling 71.30, D.Mark 25.52, SW Franc 31.58, Saudi Riyal 11.40, French Franc 7.60, UAE Dhiram 11.55, Kuwait Dhinar 140.56)
- 4.4. Write a VB project using control array that creates a scientific calculator with appropriate command buttons. Include the following capabilities for the calculator: +, -, *, /, %, power, square root, square and log(base 10).
- 5.5. Write a VB project to create a screen saver that displays a list of pictures with 1 second pause in between successive pictures.
6. Write a VB project for commercial bank operations using SB account database, with the following features:
 - 1) ADD NEW ACCOUNT
 - 2) DEPOSIT AMOUNT
 - 3) WITHDRAW AMOUNT (with minimum balance condition)
 - 4) Calculate simple interest and update balance taking average of last 6 month
balance in the account.
 - 5) CLOSE ACCOUNT.

7. Write a VB project using built in Ax control(Rich Text Box), develop the windows NOTEPAD like editor with File and Edit menus and also display the floating menu whenever necessary.
8. Write a VB project for a Blood Bank that maintains a list of donors with address and their blood group. Provide the following reporting features:
 - i) Search and display the address of a particular donor, given the name in a text box.
 - ii) Display all the donors (using data report)
 - a) in age group 20-30.
 - b) in particular city.
 - c) with particular blood group.
 - d) male donors with particular blood group
 - e) female donors with particular blood group.
9. Write a VB project using Ax DLLor EXE add a class module that would perform the following functions:
 - a) Test whether the given number is perfect or not
 - b) Whether the gn% number Armstrong or not
 - c) Find the factorial of the given number
 - d) sum of digits
10. Write a VB project using ActiveX control to create a Textbox that accepts only numeric value. Provide the following properties for the text box : Backcolor, Forecolor and Text.

SYLLABI FOR CERTIFICATE PROGRAMMES – 2016-17

ALAGAPPA UNIVERSITY

(Accredited with 'A' Grade by NAAC)
KARAIKUDI – 630 003 TAMILNADU

DIRECTORATE OF DISTANCE EDUCATION

(Recognized by Distance Education Bureau (DEB), UGC, New Delhi)

CERTIFICATE PROGRAMMES



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CERTIFICATE PROGRAMMES

Sl.No.	Course	Page No.
1	Certificate course in Library And Information Science	3-7

Course : **Certificate in Library and Information science (CLISc)**
[2008-09 onwards]

Mode : Distance Education

Duration : 6 Months

Eligibility : +2

Medium of Instruction: English / Tamil

COURSE OF STUDY & SCHEME OF EXAMINATIONS

Sl.No	Subject	Theory	Practical	Passing Minimum
1.	Fundamentals of Library & Information Science	100		40
2.	Information Sources and Services	100		40
3.	Information Processing Practice (Classification & Cataloguing)*		100	40
	Total	200	100	

Question Paper Pattern:

CERTIFICATE IN LIBRARY AND INFORMATION SCIENCE

Time: 2 hours

Maximum Marks: 100

Part-A (40 x 1 = 40 marks)

Answer **all** questions

Objective Questions	:	1 to 40
Fill in the blanks	:	10
True/ False	:	10
Match the following	:	10
Multiple choice :		10

Part-B (10 x 6 = 60 marks)

Answer any **Ten** questions

Questions: 41 to 55

Each answer not to exceed half a page.

Completion of the Course:

The students have to successfully complete their course within 5 years from the year of completion of the course, failing which their registration will stand automatically cancelled and they have to register afresh, if they want to continue the course.

Other Regulations:

Besides the above, the common regulations of the University shall also be applicable to this programme.

Paper1:

Fundamentals of Library & Information Science

Objectives :

1. To enable students acquire knowledge regarding importance of Libraries in the context of social, economic, political, scientific and technological environment.
2. To enable the students to understand at different levels of information systems in the society and their functions.
3. To enable the students apply their knowledge in various library practice.

Unit1:

Evolution, growth and development of LIS schools in India-current trends.

Unit2:

Types of Libraries: Academic Public and Special Libraries.

Unit3:

Library concepts & Legislation: Five laws of Library science, Professional ethics of librarian, Delivery of books and newspaper act

Unit4:

Library Association and International bodies: Library Association –ILA, IASCIC, ALA, IFLA and UNESCO

Unit5:

Library Rules & Regulation, Stock Verification, Annual Reports, Budgets, Library buildings, furniture, equipments.

Recommended Books :

1. Ranganathan, S.R., Five laws of Library Science, London:Vikas,1957
2. Atherton, Paline, Handbook of information system and services, Paris:UNESCO, 1977
3. Khanna, J.K., Library and Society, Kurushetra: Research Publication, 1987

Paper2: Information Sources and Services

Objectives :

1. To enable the students acquire knowledge regarding various Information sources and services
2. To enable the students understand handling traditional and digital information services
3. To enable the students apply their knowledge in Information Sources and Services

Unit1:

Information: Definition, Data, Knowledge, Nature and characteristics of information, Information Transfer, Barrier to communication.

Unit2:

Sources of information – Documentary and Non Documentary sources, Types of Information Sources-Primary, Secondary and Tertiary Sources.

Unit3:

Directories, Encyclopedias, Year Books, Handbooks, Almanacs &, Atlases, Geo Sources, News summaries

Unit4:

Types of information services: Types of Reference Service, Initiation to Fresh man

Unit5:

History and Generations of computers – Components of Computers – Block Diagram

Recommended Books:

1. Davinson, "Reference Services" , London, Cliv Bingley, 1980
2. Foskett, "Library system and information services", London" Crossy & Lockwood.
3. Kemp, Current Awareness Services", London: Clive Bengley, 1979
4. Operating system Concepts by A Silberchatz, P B Galvi & G Gagne

Paper3:

Information Processing Practice (Cataloguing & Classification)

Classification: (Simple titles)

- Colon Classification (CC),
- Dewey Decimal Classification (DDC)

Cataloguing:

- Classified Catalogue Code (CCC)