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
## ALAGAPPA UNIVERSITY, KARAIKUDI

## DIRECTORATE OF DISTANCE EDUCATION

### REGULATIONS AND SYLLABI

### PG. DIPLOMA PROGRAMMES

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<th>Sl.No.</th>
<th>Course</th>
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<td>P.G.Dip. in (Personnel Management &amp; Industrial Relations)</td>
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<td>P.G.Dip. in (Business Management)</td>
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<td>P.G.Dip. in (Hospital Administration)</td>
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<td>P.G.Dip. in (Human Resource Management)</td>
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<td>P.G.Dip. in (Yoga Education)</td>
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<td>7</td>
<td>P.G.Dip. in (Event Management)</td>
<td>37-43</td>
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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

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<td>Principles of Personnel Management</td>
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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

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 Wanker, Management, Prentice Hall.
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

UNIT III

UNIT IV

UNIT V

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

REFERENCE BOOKS:
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

UNIT III

UNIT IV

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 – Count’s power under the act.

REFERENCE BOOKS:
1. Bare Acts
2. Kapoor N D, Industrial Law
3. Shukla M C, Industrial Law
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 of 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


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


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
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


UNIT III


UNIT IV


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:

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

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<th>Subject Code</th>
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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.

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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.

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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 – Bench marking.

REFERENCE BOOKS:

1. Stoner and Wanker, Management, Prentice Hall.
5. Gene Burton & Manab Thakur, Management Today: Principles and Practice, TMH.
UNIT I

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

UNIT IV

UNIT V
Cost of Capital Concept – Cost of debt, equity, preference share capital, retraining 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


REFERENCE BOOKS:
UNIT I
Marketing Mix: Four P’s in marketing – Marketing Planning – Importance – Types of planning.

UNIT II

UNIT III

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

UNIT V

UNIT VI

REFERENCE BOOKS:
UNIT I
Personnel Management – Definition – Objectives and functions – Role and structure of personnel function in organizations – Personnel principles and policies.

UNIT II

UNIT III

UNIT IV

UNIT V

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

REFERENCES:
Paper 5: BUSINESS ENVIRONMENT

UNIT I

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

UNIT III

UNIT IV

UNIT V

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

REFERENCE BOOKS:
2. Dutt and Sundaram: Indian Economy.
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

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<td>Health Policy and Health Care System</td>
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<td>Hospital Support Services</td>
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Paper 1: PRINCIPLES OF HOSPITAL MANAGEMENT

UNIT I

UNIT II

UNIT III

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

REFERENCE BOOKS:
1. Koontz and O'Donnel , Essentials of Management
2. Griffin, Management.
UNIT I

UNIT II

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

UNIT IV

UNIT V

UNIT VI

REFERENCE BOOKS:
Paper 3: HEALTH POLICY AND HEALTH CARE SYSTEM

UNIT I

UNIT II

UNIT III

UNIT IV

UNIT V

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

UNIT II

UNIT III

UNIT IV

UNIT V

UNIT VI

REFERENCE BOOKS:
2. Park K, Text Book on Hygiene and Preventive medicine, Banarsidas Bhanot.
5. Hospital Medical International Pvt. Ltd., Hospital Administration, Office Journal of I.H.A
UNIT I


UNIT II


UNIT III


UNIT IV


UNIT V


UNIT VI


REFERENCE BOOKS:

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

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<td>Management of Performance</td>
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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:

5. Government of India report, HRD annual reports, Department of Sports.
Paper 2: HUMAN RESOURCE MANAGEMENT

UNIT I


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, organization, 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:

UNIT I

Performance Dynamics and Performance Evaluation of Psychology 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, Cooperation, Group chosen).

UNIT II


UNIT III

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

UNIT IV


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:

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


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:

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

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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

UNIT 3

UNIT 4

UNIT 5

UNIT 6
Personnel Records/ Reports – Personnel research and personnel audit – Objectives – Scope and importance.

REFERENCES:
Paper 1.2: HUMAN RESOURCE ECONOMICS

UNIT 1

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

UNIT 5

UNIT 6

REFERENCE BOOKS:
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

UNIT 3

UNIT 4

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
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 of 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


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


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


UNIT 3


UNIT 4


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:

Course: P.G.. Diploma in Yoga Education [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

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<td>Application of yoga therapy &amp; teaching practice</td>
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<td>Yogic practices and social values</td>
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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-jñana 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 suryanamaskar-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 feuerstein: the yoga tradition (it history, literature, philosophy and practice)
2. Swamy satyananda Saraswathi: asana, pranayama, mudra, bandha (india: yoga publications trust, munger, bihar)
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)
10. Sivananda yoga centre (2003), the sivananda companion to meditation, newyork: simen & schuster.
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


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)
3. Dr.nagendra hr. The art and science of pranayama (vivekananda kenda yoga prakashana bangalore)
5. Dr.hr.nagendra: yoga research & applications (vivekananda kendar yoga prakashana, bangalore)
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.


Unit-IV : Methods & benefits of practicing asanas: sitting & standing- breathing practices-simplified physical exercises-body stretching practices-suryanamaskar-basic asanas.


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)
3. Dr.nagendra hr. The art and sciences of pranayama (vivekananda kendra yoga prakashana bangalore0
5. Swami satyananda saraswathi: asana, pranayama, mudra, bandha (india: yoga publications trust, mungur, 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)
10. Dr.jeetendra adhia: spring of inspiration(alpha international, gujarat.)
Paper – 4 : Yogic practices and social values

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


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 kendara yoga prakashana, bangalore).
2. Swami satyananda saraswathi: asana, pranayama, mudra, bandha (yoga publications trust, munger, bihar, india).
5. Dr.k.chandrasekaran, “sound health through yoga” (prem kalyan publications, sedapatti, madurai 1999).
7. Sivananda yoga centre (2003), the sivananda companion to meditation, newyork : simen & schuster.
Course : P.G.Diploma in Event Management (2016-17 onwards)

Mode : Distance Education

Duration : One year

Eligibility : Any degree from a recognized University

Medium : English only.

COURSE OF STUDY & SCHEME OF EXAMINATIONS

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<td>Services Marketing Management</td>
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<td>250</td>
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</table>
UNIT 1


UNIT 2


UNIT 3


UNIT 4


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.

REFERENCES
6. Ricky W. Griffin, Management, South-Western College Publications, 2010
1.2 SERVICES MARKETING MANAGEMENT

**UNIT 1**

**UNIT 2**

**UNIT 3**

**UNIT 4**


**UNIT 5**
Service Encounter – Tourism and marketing – Hotel marketing — Consultancy services – Courier services.

**UNIT 6**
Marketing of Services: Bank marketing – Insurance marketing – Hospital marketing – Telecommunication services – Education marketing.

**REFERENCES :**
1. Adrian Payne, *Services Marketing*, PHI.
UNIT 1:

**Concepts of Event and Event Product Types:** Concept and Definition of Events-Types of Events- Events as Natural Happenings -Events Created by Humans/Institutions- Reasons for Events- Created Events as Event Products- Variety of Events: Individual/ Life Cycle, Family, Social, Cultural, Recreational, Festivals and Religious Events Vs. Political, Official, Corporate, Celebrity, Sporting, Fairs, Parades, Fund Raising Education/ Career and Institutional Events- Indoor and Outdoor Events- Event Companies- Event Management as Profession or. Business- Event Planning Process and Aspects- Marketing Research for Event Planning- Event Proposal.

UNIT 2:


UNIT 3:


UNIT IV:

UNIT V:

Outdoor Event Production: Concept of Outdoor Event Production- Types of Outdoor Events- The Assembling, Bundling, Calibrating and Delivering Phases of select Outdoor Events like Major Outdoor Sporting Events, Outdoor Religious Events, Outdoor Political Events Outdoor Recreational Events; Outdoor Community/ Social/ Municipal Events and Outdoor Celebrity Events-. Event Running and Execution Activities and their management- Event Production Service Companies- Best Practices.

UNIT VI:

Indoor Event Production: Concept of Indoor Event Production- Types of Indoor Events- The Assembling, Bundling, Calibrating and Delivering Phases of select Indoor Events like Major Indoor Sporting Events, Indoor Religious Events, Indoor Personal/ Life Cycle Events, Indoor Recreational Events, Indoor Educational/Career Events and Indoor Celebrity Events- Pre-event, At-event and After-event Activities and their management-

REFERENCE BOOKS/WEBSITES

8. http://www.beconigansenpainment_wm/?h op=-h i m an s u 16
1.4 EVENT RESOURCES MANAGEMENT

UNIT I: Event Venue Space Facilities and Resources: Event Venue: Meaning and Types- Venue Capacity- Requisites of an Ideal Venue- Access, Egress and Visitor Flow- Venue Space Management: Needs for Front-of-House Slot, Stage, Seating, Standing and Rendezvous Area- Space and Location for Media Stands, Camera Positions, Judges Boxes, Sound Relay Towers- Space and Location for Parking, Dining, Meeting, Networking, Shopping, etc- Event Guest/Artist Area Facilities- Event Production offices- Rehearsal- Amenities and Access Thereto.


UNIT V: Event Centric Administrative Personnel Resources: Human Resources with Event Related Organizational, Functional, Executing and Monitoring Knowledge- Functions of Technical Director, Event Producer, Event-project Coordinator, Stage Production Manager, Event Marketing & Promotion Manager, Event Safety and Security Manager, Event Site Manager, Infrastructural Manager, Information Manager and Event Human Relations Manager- Functions and Preparedness of Medical, Emergency Liaison Team (ELT) and Evacuation Personnel.

UNIT VI: Event Costing, Financing and Budgetary Resources: Event Costing by Heads of Expenditure like Travel and Accommodation, Trophies and Awards, Salaries, Postage and telephone, Stationery, Printing and Photocopying, Medical Fees, Venue/Facilities/Equipment Hire, Insurance, Promotion, etc- Event Income Sources: Government Grants, Sponsorship, Merchandising Sales, Participant Fees, Raffles and Spectator Fees- Predicting the Finances of an Event- Matching and Monitoring of Financial and Operating Results with Budgets- Continuous Control and Adjustment.

REFERENCE BOOKS/WEBSITES
1.5 EVENT RISK MANAGEMENT


REFERENCE BOOKS/WEBSITES

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

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<td>1.2</td>
<td>Digital Computer Organisation</td>
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<td>C and Data Structures</td>
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<td>Office Automation</td>
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<td>Computer Lab-I: Data Structures using C</td>
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<td>1.6</td>
<td>Computer Lab-II: MS Office and Internet</td>
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<td>Object Oriented Programming and C++</td>
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<td>Systems Analysis and Design</td>
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<td>Visual Programming-I</td>
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<td>Computer Graphics</td>
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<td>Computer Lab-III: Graphics using C++</td>
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<td>2.6</td>
<td>Computer Lab-IV: Visual Basic</td>
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<td><strong>Total</strong></td>
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<td><strong>1200</strong></td>
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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 you 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 use 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

UNIT V

REFERENCE BOOKS:
1. Stacey C Sawyer, Brain 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
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

UNIT V

REFERENCE BOOKS:
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 :
2. Yedidyah Langsam, Moshe J.Augenstein, Aaron M.Tenenbaum, Data Structures Using C,
UNIT I


UNIT II


UNIT III


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


REFERENCE BOOKS:

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

UNIT III

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:
UNIT I


UNIT II


UNIT III


UNIT IV


UNIT V


REFERENCE BOOKS

UNIT I

UNIT II

UNIT III

UNIT IV

UNIT V

REFERENCE BOOKS:
2. Content Development Group, *Visual Basic 6*, Chennai, TMH.
UNIT I

UNIT II

UNIT III

UNIT IV

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:
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:

<table>
<thead>
<tr>
<th>Category</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD NOTE BOOK</td>
<td>5</td>
</tr>
<tr>
<td>ALGORITHM / FLOWCHART</td>
<td>15</td>
</tr>
<tr>
<td>PROGRAM</td>
<td>35</td>
</tr>
<tr>
<td>DEBUGGING &amp; EXECUTION</td>
<td>35</td>
</tr>
<tr>
<td>RESULT</td>
<td>10</td>
</tr>
</tbody>
</table>

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
   \[ a \times ^2 + b \times + c = 0 \]

3. Write a C program to find the roots of a quadratic equation using function definition.
   \[ a \times ^2 + b \times + c = 0 \]

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 evaluate the given mathematical expression using stack.

11. Write a C program to copy contents of one file to another file.

12. Write a C program to implement push and pop operations on stack.

13. Write a C program to read 10 values to an array variable. Use pointers to locate and display each value.
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.

*   *   *

55
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:

\[ \int_{0}^{\infty} x dy / dx \sum_{i=1}^{100} ax + b + |A| \frac{1}{2} \sqrt{ax + b \lambda} \]

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

<table>
<thead>
<tr>
<th>CONSUMER NO.</th>
<th>TYPE</th>
<th>NAME</th>
<th>PMR</th>
<th>CMR</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>D</td>
<td>RAM</td>
<td>545</td>
<td>645</td>
<td>BILL</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th>UNITS CONSUMED</th>
<th>RATE/UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST 100</td>
<td>0.80</td>
</tr>
<tr>
<td>NEXT 200</td>
<td>1.25</td>
</tr>
<tr>
<td>REMAINING</td>
<td>2.00</td>
</tr>
</tbody>
</table>

**TYPE I CONSUMER**

<table>
<thead>
<tr>
<th>UNITS CONSUMED</th>
<th>RATE/UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST 100</td>
<td>1.10</td>
</tr>
<tr>
<td>NEXT 900</td>
<td>2.40</td>
</tr>
<tr>
<td>REMAINING</td>
<td>3.50</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>ITEMNO</th>
<th>NAME</th>
<th>PRICE</th>
<th>QUANTITY</th>
<th>STOCK</th>
<th>REORDER PURCHASED</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>BOLTS</td>
<td>2.00</td>
<td>1000</td>
<td>500</td>
<td>300 800 200</td>
</tr>
</tbody>
</table>

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

ii) Find QUANTITY ON HAND using the formula

\[
\text{STOCK QUANTITY} = \text{QUANTITY ON HAND} + \text{QUANTITY PURCHASED} - \text{QUANTITY ISSUED}
\]
Find total stock value in inventory as a product of total quantity hand and total price \( \sum \text{quantity on hand} \times \sum \text{price} \). 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  
       \[ \text{Hra} = 20\% \text{ of Basic} \]
       \[ \text{Da} = 30\% \text{ of Basic} \]
       \[ \text{Grosspay} = \text{Basic} + \text{Hra} + \text{Da} \]
       \[ \text{Netpay} = \text{Grosspay} - (\text{Lic} + \text{Pf}) \]

   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 %, BONUS 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 at least 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.

\[
\begin{align*}
X & : 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 \\
Y & : 10 & 30 & 45 & 25 & 15 & 28 & 40 & 32 & 15 & 35 \\
\end{align*}
\]

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:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stationery</td>
<td>25.00</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>READY RECKONER TABLE FOR INTEREST CALCULATION PER 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERIOD</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>
9. Draw Line, Bar, PIE charts for the data given below:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>SALES</th>
<th>COST</th>
<th>PROFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>1000</td>
<td>400</td>
<td>600</td>
</tr>
</tbody>
</table>

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 “TRICHY” 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
SCODE1,
SNAME1, SCODE2, SNAME2, SCODE3, SNAME3, SCODE4, SNAME4,
SCODE5, 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

<table>
<thead>
<tr>
<th>SUBCODE</th>
<th>SUBJECT NAME</th>
<th>INTERNAL</th>
<th>EXTERNAL</th>
<th>TOTAL</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>SYSTEMS ANALYSIS</td>
<td>20</td>
<td>40</td>
<td>60</td>
<td>PASS</td>
</tr>
<tr>
<td>102</td>
<td>DBMS</td>
<td>22</td>
<td>50</td>
<td>72</td>
<td>PASS</td>
</tr>
<tr>
<td>103</td>
<td>VISUAL PROGRAMING</td>
<td>20</td>
<td>38</td>
<td>58</td>
<td>PASS</td>
</tr>
<tr>
<td>104</td>
<td>INTERNET PROGRAMMING</td>
<td>21</td>
<td>27</td>
<td>48</td>
<td>FAIL</td>
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<tr>
<td>105</td>
<td>COMPILER DESIGN</td>
<td>28</td>
<td>30</td>
<td>58</td>
<td>PASS</td>
</tr>
</tbody>
</table>

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 graph 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 fill up different color for each quadrant.


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

*   *   *
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, SaudiRiyal 11.40, French Franc 7.60, UAE Dhiram 11.55, Kuwait Dhinar 140.56)

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. 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 DLL or EXE add a class module that would perform the following functions:
   a) Test whether the given number is perfect or not
   b) Whether the given 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 textbox: Backcolor, Forecolor and Text.