ENVIRONMENT AND SUSTAINABILITY

PART-IV (3)

COURSE CODE: 7BES2
I YEAR – II SEMESTER

COURSE – ENVIRONMENTAL STUDIES

UNIT I The Multidisciplinary Nature Of Environmental Studies

Definition, scope and importance
Need for public awareness

UNIT II Natural Resources

Renewable And Non-Renewable Resources

A) Forest resources: use and over-exploitation, deforestation, case studies, timber extraction, mining, dams and their effect on forests and tribal people
B) Water resources: use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams- benefits and problems.
C) Mineral resources: use and exploitation, experimental effects of extracting and using mineral resources, case studies.
D) Food resources: world food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
E) Energy resources: growing energy needs, renewable and non-renewable energy sources, use of alternate energy resources, case studies.
F) Land resources: land as a resource, land degradation, main induced landsides, soil-erosion and desertification
    - Role of individual in conservation of natural resources
    - Equitable use of resources for sustainable lifestyle

UNIT III Ecosystems, Bio-Diversity And Its Conservation

ECOSYSTEMS

- ✓ Concept of an ecosystem
- ✓ Structure and function of an ecosystem
- ✓ Energy flow in the ecosystem
- ✓ Food chains, food webs and ecological pyramids

Biodiversity and its conservation

- ✓ Introduction- definition: genetic, species and ecosystem diversity
- ✓ Bio-geographical classification of india
- ✓ Value of biodiversity: consumptive use, productive use, social ethical, aesthetic and option values.
- ✓ Biodiversity at global, national and local levels
- ✓ India as a mega-diversity nation
- ✓ Hot spots of biodiversity
- ✓ Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts
- ✓ Endangered and endemic species of india
- ✓ Conservation of biodiversity in-situ and ex-situ conservation of biodiversity

UNIT IV Environmental Pollution

- Causes, Effects And Control Measures Of:-
    A. Air Pollution

B. Water Pollution
C. Soil Pollution
D. Marine Pollution
E. Noise Pollution
F. Thermal Pollution
G. Nuclear Hazards

UNIT V field work

- Visit To A Local Area To Document Environmental Assets–River/ Forest/ Grassland/ Hill/ Mountain
- Visit To A Local Polluted Site- Urban/Rural/Industrial/Agricultural
- Study Of Common Plants, Insects, Birds
- Study Of Simple Ecosystem-Pond, River, Hill Slopes, Etc

BOOKS FOR REFERENCE:

1. Agarwal, k.c.2001 environmental biology, nidi publ.ltd., bikaner
2. Bharucha erach the biodiversity of india, mapin publishing pvt. Ltd, ahamedabad-380013,india, email: mapin@cent.net®
3. Burner r.c. 1989, hazardous waste inclineration mcgraw hill inc.480p
4. Clark r.s. marine pollution, clanderson press oxford(tb)
5. Cunnigham, w.p.cooper, t.h.gorhani, e& hepworth, m.t 2001 environmental encylopedia, jaico publ. House, mumbai, 1196p.
6. De.a.k.environmental chemistry, wiley eastern ltd.
7. Down to earth, centre for science and environment®
8. Gleick h.p. 1993, water in crisis, pacific instutue for studies in dev, environment & security, stockholm env. Institute,oxford univ.press,473p
9. Hawlinks r.e., encyclopedia of indian natural history, bombay natural history society, bombay (r)
10. Heywood, v.h & watson, r.t.1995, global biodiversity assesment, cambridge univ.press, 114op
11. Jadhav, h&bhosale v.m.1995, environmental protection and laws, himalaya pub; house, delhi 284p
12. Mckinney, m.l & schoch, rm.1996 environmental science systems& solutions, web enhanced edition 639p
13. Mhaskar a.k.matter hazardous, techno-science publications(tb)
14. Miller t.g. jr.environmental science wadsworth publicing co(tb)
15. Odurm, e.p.1971 fudamentalof ecology, w.b.saunders co. Usa 584p
16. Rao m.n & datta, a.k., 1987, tehchno-science, waste water treatment. Oxford& ibh publ, co.pvt. Ltd.,345p
17. Sharma b.k. 2001, environemtal chemistry goel publ,house,meerut
18. Survey of the environmental the hindu(m)
19. Townsend c, harper j, and michael degon,essential of ecology,blakewell science (tb)
20. Trivedi r.k., hand book of environmental laws, rules, guidelines, compliances and standards, vol i and ii, enviro meida ®
21. Trivedi r.k. & p.k.goel introduction to air pollution,techno-science publications (tb)
22. Wanger k.d, 1998 environmental management w.b. environmental management. W.b.saunders co. Philadelphia, usa.499p

GROUP II – SET I

II YEAR – IV SEMESTER
COURSE CODE: 7SBS4B2

COURSE II – EMERGENCY AND MEDICAL LAB SKILLS

Objectives:

- To recognize the nature and seriousness of the patient's condition or extent of Injuries to assess requirements for emergency medical care
- Administer appropriate emergency medical care based on assessment findings of the patient's condition
- To perform safely and effectively the expectations of the job

Unit I

First aid – fracture and fire
First aid – drowning and snake animal, rodent bites.
First aid – diarrhoea, dysentery and heat stroke

Unit II

Traffic rules
Road accidents: precautions, preventions & emergency steps to be taken on the spot advantages of 108 ambulance.

Unit III

Basic clinical lab tests
Blood, urine, saliva, stool tests

Unit IV

Awareness programmes on the importance of locally available herbal plants and vegetables. Skin lashes poor eye-sight anemia

Unit V

Project on locally available native treatments for various health problems (project report 15 to 25 pages)
Books for reference:

1. Era.su.muthu and meera ravishankar, “first aid”, aug-2013 published by sura books (pvt) ltd., 1620, ‘j’ block, 16th main road, anna nagar, chennai – 600 040.
2. Dr.rama rao, “handbook of first aid”, chennai.

ENVIRONMENT & SUSTAINABILITY

III YEAR V SEMESTER
COURSE CODE: 7SBS5A5

COURSE II HERITAGE AND TOURISM

Objectives:

- To understand the definitions, terminology and concepts of cultural heritage and its relationships with tourism.
- To understand heritage tourism supply by examining different categories of heritage Attractions and the contexts within which heritage exists and additional perspectives on scale from the supply perspective
- To understand the role of interpretation in cultural heritage sites and the relevance of such interpretation approaches to visitors.
- Provide a framework to plan, design, and assess interpretation programs for tourists

Unit I

Tourism – introduction – concepts – significance – forms of tourism – effects of tourism – social, economic and environmental aspects – human rights

Unit II

Importance of preserving heritage – heritage spots in india – in tamil nadu – brief history of the heritage spots – the role of heritage spots in promoting tourism – unesco guidelines on heritage

Unit III

Role of government in promoting tourism – itdc- ttdc-palace on wheels – travel industry service network – land (rail and road) air – water – travel agency – hospitality and accommodation

Unit IV

travel guide – features – requirements – one's role as a guide – income and employability – qualities and skills of a professional travel or tourist guide

Unit V

Project work – field visit to heritage and tourism spots in sivagangai and ramanathapuram districts and submission of a report (15 to 25 pages)

Books for reference:

Bhatia, a. K – tourism development principles and practices, (sterling publishers (p) ltd., new delhi)

Ananand m. M – tourism and hotel industry in india (sterling publishers (p) ltd., new delhi)

Acharya ram – tourism and cultural heritage (rosa publications: jaipur, 1986)

Jha, s.m – tourism marketing (himalaya publishing house)

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HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR IV SEMESTER
COURSE CODE: 7BVE4

COURSE VALUE EDUCATION

Definition

The learning and practice of facts which have eternal value is what is contemplated by value education. It can also be the process by which a good citizen is moulded out of a human being. The evolution of a good human being is when he realises that his conscience shows to him the rightness of his action.

Objective

To create an awareness to values among learners and help them adopt them in their lives.

Unit I

Definition – need for value education – how important human values are – humanism and humanistic movement in the world and in india – literature on the teaching of values under various religions like hinduism, buddhism, christianity, jainism, islam, etc. Agencies for teaching value education in india – national resource centre for value education – ncert– iits and ignou.

Unit II

Vedic period – influence of buddhism and jainism – hindu dynasties – islam invasion – moghul invasion – british rule – culture clash – bhakti cult – social reformers – gandhi – swami vivekananda – tagore – their role in value education.

Unit III

Value crisis – after independence

Independence – democracy – equality – fundamental duties – fall of standards in all fields – social, economic, political, religious and environmental – corruption in society.

Politics without principle – commerce without ethics – education without character – science without humanism – wealth without work – pleasure without conscience – prayer without sacrifice – steps taken by the governments – central and state – to remove disparities on the basis of class, creed, gender.

Unit IV

Value education on college campus

Transition from school to college – problems – control – free atmosphere – freedom mistaken for license – need for value education – ways of inculcating it – teaching of etiquettes – extra-curricular activities – n.s.s., n.c.c., club activities – relevance of dr.a.p.j. abdual kalam's efforts to teach values – mother teresa.

Unit V

Project work

1. Collecting details about value education from newspapers, journals and magazines.
2. Writing poems, skits, stories centering around value-erosion in society.

3. Presenting personal experience in teaching values.
4. Suggesting solutions to value – based problems on the campus.

Recommended books:

1. Satchidananda. M.k. (1991), "ethics, education, indian unity and culture" – delhi, ajantha publications.
2. Saraswathi. T.s. (ed) 1999. Culture", socialisation and human development: theory, research and application in india" – new delhi sage publications.
3. Venkataiah. N (ed) 1998, "value education" new delhi ph. Publishing corporation.
4. Chakraborti, mohit (1997) "value education: changing perspectives" new delhi: kanishka publications.
5. "value education – need of the hour" talk delivered in the hted seminar – govt. Of maharashtra, mumbai on 1-11-2001 by n.vittal, central vigilance commissioner.
6. "swami vivekananda's rousing call to hindu nation": eknath ranade (1991) centenary publication
7. Radhakrishnan, s. "religion and culture" (1968), orient paperbacks, new delhi.

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR VI SEMESTER
COURSE CODE: 7SBS6B6

COURSE IV NATIONAL SERVICE SCHEME(NSS)

Objectives:

- To enable the students to understand the community in which they work
- To develop among themselves a sense of social and civic responsibility
- To develop competence required for group-living and sharing of responsibilities
- To acquire leadership qualities and democratic attitude
- To develop capacity to meet emergencies and national disasters
- To practice national integration and social harmony.

UNIT I:

Introduction to nss :orientation and structure of nss - the history of nss- objectives- symbol and meaning- nss hierarchy from national to college level,

Regular activities: distribution of working hours- association between issues and programs- community project- urban rural activities, association- modes of activity evaluation-concept of society- development of indian society - features- division of labours and cast system in india

UNIT II:

Features of indian constitution: provisions related to social integrity and development,

Social justice: the concept- features - inclusive growth- the concept- feature,

Basic social issues in india: degeneration of value system, family system - gender issues - regional imbalance

UNIT III

Special campaigning activity :concept of camp: identification of community problems- importance of group living- team building- adaption of village- planning for camp- pre, during and post campaigning activities

UNIT IV

Training and orientation of the program unit in college: leadership training – formation of need based programs- concept of campus to community(c to c) activities

UNIT V

Social integration: meaning of value and types- human values and social responsibilities indian

Value system: understanding of society, physical: physical exercise, yoga, etc, cultural:

Basics of performing arts as tool for social awareness, street play, creative dance, patriotic song, Folk song and folk dance- national integration.

Books for reference:

1. National service scheme manual (revised),ministry of human resource development of india.
2. Guidelines from ministry of human resource development of india. (downloaded from the website of ministry of hrd, govt. Of india).

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Activities

1. Arrange the conversation between the students.
2. Preparing the speeches (for example, introducing a speaker or proposing a vote of thanks at the college function, explaining an experiment & etc.,)
3. Passage for note making
4. Passage for summarizing
5. Writing a paragraph on any topic(statements and proverbs can be given)
6. Writing a c.v.
7. Writing a memo/notice/agenda/email/report
8. Ten sentences form tamil to english & english to tamil
9. Ten sentences from error correction.

Recommended books

1. "success with spoken english ii" dr. Saraswathi and dr. Noorjahan kother adham (2000), common wealth university books, chennai.
2. "teaching spoken english and communication skills" rev.dr.francis soundararaj (1995), t.r.publication, chennai.
3. "developing communication skills," krishna mohan and meera benerji (2002) macmillan india limited.
4. 3 volumes – vowels
   – consonants
   – rhythm and intonation prepared by ciefc and published by oxford university press, chennai.

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR VI SEMESTER
COURSE CODE: 7SBS6B7
COURSE IV NATIONAL CADET CORPS (NCC)

Objectives:

- After going through this unit, the students would be able to gain an insight into aims and objectives of ncc.
- Explore the importance of ncc in nation building.
- Understand the concept of national integration and its importance.

UNIT – I

National cadet corps(ncc)-introduction to ncc- genesis –objectives of ncc- concept of training in ncc- organization of the ncc – associate ncc officers – cert exam.

UNIT –II national integration:

National interests, objectives, threats and opportunities. Religions, culture, traditions and customs of india, importance and necessity. Freedom struggle and nationalist movement in india drill:foot drill, arms drill, ceremonial drill, qualities of immediate and implicit obedience of orders.

UNIT-III social awareness and community development:

Ngo's role and contribution, drug abuse and trafficking, basics of social service and its need, civic responsibility, contribution of youth towards social welfare, rural development programmes.

UNIT –IV environmental awareness and conservation:

Natural resources conservation and management, water conservation and rain water harvesting, hygiene and sanitation, structure and function of the human body, infectious and contagious diseases and its prevention.

UNIT –V personality development and leadership:

Introduction to personality development, self awareness, communication skills, leadership traits, time management.

Books for reference:

1. Anonymous. 1995. Officers training manual. Precis, ncc, ots, kamptee
2. Bose, r and faust, l. 2011. Mother teresa, ceo, unexpected principles for practical leaders, tata mcgraw hill publications, new delhi.
3. Ganapathi, r. 2003. Swami vivekanandar, ramakrishna math press, chennai.
4. Gandhi, m.k. 1983. An autobiography or the story of my experiments with truth, navajivan publishing house, ahamedabad
5. Gupta, s.k. and joshi, r. 2008. Human resource management, kalyani publishers, new delhi.
6. Kalam, a.p.j. 1999. Wings of fire, university press, hyderabad
7. Mishra, r.c. 2000. A hand book of ncc, kanti prakashan, etawah.precis
8. Rana, b.s 2004. Maharana pratap, diamond books (p) ltd., new delhi. Rana, b.s. 2004. Chatrapati shivaji, diamond books (p) ltd., new delhi

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HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR I SEMESTER
COURSE CODE: 7NME1C

COURSE 1 – COMMUNICATIVE ENGLISH
15 HOURS PER SEMESTER – 1 HOUR PER WEEK

Objective

To enable each learner at the college level to communicate effectively in english both in the spoken and in the written mode

Theory

Practice oriented course. Hence, 75:25 scheme of marking has to be followed. 75 marks for external assessment. 25 marks for internal marks assessment. Internal assessment will be carried out by the teacher who teaches the course while the external evaluation will be done by a group of 2 or 3 teachers who teach the course from the same college or from the nearby colleges.

Unit I Basics of english

Sentence- clause-phrase-word-morpheme. Introduction to sounds of english-stress-intonations

Unit II Introduction to lsrw skills

Listening –reading-speaking-writing skills

Unit III Spoken communication

Participating in conversation
Preparation of speech for shorter or longer duration

Unit IV Writtern communication-I

Note-making-summarizing-paraphrasing-letter writing

Unit V Written communication-II

Introduction to preparing curriculum vitae-creating and verifying personal and official e-mail-preparing notice circulars, memos and agenda for a meeting-report writing-common errors in english translation.

Activities

10. Arrange the conversation between the students.
11. Preparing the speeches (for example, introducing a speaker or proposing a vote of thanks at the college function, explaining an experiment & etc.,)
12. Passage for note making
13. Passage for summarizing
14. Writing a paragraph on any topic(statements and proverbs can be given)
15. Writing a c.v.
16. Writing a memo/notice/agenda/email/report
17. Ten sentences form tamil to english & english to tamil
18. Ten sentences from error correction.

Recommended books

5. "success with spoken english ii" dr. Saraswathi and dr. Noorjahan kother adham (2000), common wealth university books, chennai.
6. "teaching spoken english and communication skills" rev.dr.francis soundararaj (1995), t.r.publication, chennai.
7. "developing communication skills," krishna mohan and meera benerji (2002) macmillan india limited.
8. 3 volumes – vowels
   – consonants
   – rhythm and intonation prepared by ciefc and published by oxford university press, chennai.

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HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR III SEMESTER
COURSE CODE: 7SBS3A1

COURSE I COMPETITIVE EXAMINATION SKILLS

Objectives:

- To build a sense of awareness among students through proper guidance about various competitive examinations in order to motivate students for prospective career in government and corporate sector.
- To intensively guide students for competitive examinations like tnpsc, upsc, ssc, rrb, ibps etc.

Unit I

Public service commission: tamil nadu public service commission (tnpsc) and its role -history of tnpsc - constitutional provisions on the formation, functions, and powers of public service commissions for the union and for the states - tnpsc and its rules of procedure.

Eligibility and examination pattern: tnpsc - union public service commission (upsc) - staff selection commission (ssc) - railway recruitment board (rrb) – institute of banking personnel selection (ibps).

Unit II

Intelligence, creativity & application, testing & assessment - types, verbal abilities & fluency

Unit III

Numerical ability:

Numbers, simplification, time and work, percentage, fraction, speed and distance, simple and compound interest, ratio and proportion

Unit IV

Spatial and perceptual abilities, situation reaction test

Unit V

Memory and inductive reasoning, logical reasoning, coding and decoding, direction test, syllogism

Books for reference:

1. Ajay rai, “intelligence tests”, sterling paperbacks, published by sterling publishers pvt. Ltd., l-10, green park extension, new delhi 110 016., 2001
2. Competition success review magazines.

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HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR III SEMESTER
COURSE CODE: 7SBS3A2

COURSE II EXECUTIVE SKILLS

Objectives:

- To understanding good leadership behaviors
- To prepare themselves for training after reviewing administrative matters and making introduction
- To understand qualities and strengths
- To understand housekeeping and documentation skill

Unit I

Professionalism: professional approach & behaviour – rational vs. Emotional decisions – analysis of self-competence and self confidence – qualities of an effective executive

Unit II

Corporate etiquette: dressing occasions – formal – semi formal and informal – eating habits– table manners – body language: kinesics and proximity

Unit III

Housekeeping skills: cleanliness at work place – organizing the work table and shelves – spatial utility and energy saving habits – office files and personal computer / laptop management

Unit IV

Front office skills: reception and greeting – telephone manners – effective visitor appointments management – preparation to attend office meetings – preparation to hold office meetings

Unit V

Documentation: objectives, report writing, how to write minutes, preparation methods, and report for media?

Books for reference:

1. Naveen kumar, sudan a. S; managerial skill development, first edition (2004), anmol publications
2. Lesikar & flatley, basic business communication, new delhi: tata mcgraw hill
3. www.executiveworld.com
4. www.selfconfidence.co.uk
5. www.senselang.com

HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER
COURSE CODE: 7SBS5A4

COURSE I – ENTREPRENEURIAL DEVELOPMENT SKILLS

Objectives:

- To learn the concepts, principles of entrepreneurship and to develop entrepreneurial interest and qualities
- To impart the process and procedure involved in setting up of a small enterprise and to acquire the necessary managerial skills to run a small-scale industry

Unit I

Concept of entrepreneurship and basics of selection of project/business

Qualities of an entrepreneur – classification of industries as tiny, small, medium and large infrastructure facilities, threats and opportunities-corporate social responsibility

Unit II

Preparation of project proposal

Introduction to nature of business – techniques of market survey – goal setting, funding institution, departmental licenses and clearance – production capacity – fixed capital – working capital and total investment – costing, pricing, profit assessment – return on capital investment, break even point and cash flow

Unit III

Marketing skills

Salesmanship, credit sales, customer management, negotiation skills, business tie ups, export possibilities and policies

Unit IV

Management of men, materials, money, machine and methods (the 5ms)

Management of man power, problem solving, purchasing techniques, inventory management– quality control and standards – resource mobilization – financial planning, record keeping and accounting, knowledge of employees' welfare measures – plant selection and layout.

Unit V

Industrial management

Technology up gradation – value addition – diversification – utilization of waste and by products – concepts of zero discharge

Books for reference:

1. Entrepreneurial development – s.s.khanna, s.chand & co.
2. Entrepreneurial & management of small business – ced, madurai – 10.
3. Entrepreneurship development – s.p.saravanan, sul

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR V SEMESTER
COURSE CODE: 7SBS5A6

COURSE III MARKETING AND SALES MANAGEMENT

Objectives:

- To acquire analytical skills for solving marketing related problems and challenges and to familiar with the strategic marketing management process
- To learn the elements of sales force to be an effective component of an organization's overall marketing strategy.

Unit I

Introduction: evolution of marketing – types of marketing: consumer products marketing, industrial marketing and services marketing – demographic and behavioural dimensions of marketing – marketing planning

Unit II

Basics of market segmentation, targeting and positioning – components of the marketing mix: product – price – place – promotion – distribution channels: types – merits and demerits

Unit III

Marketing vs selling – nature and scope of sales management – personal selling and salesmanship – selling function – understanding consumer's decision making process – sales organization and types of selling

Unit IV

Prospecting – approaching the customer – sales presentation – sales demonstration – negotiating buyer concerns – closing the sale – post sales service and complaint handling

Unit V

Modern trends in marketing and sales: internet marketing – direct marketing – multi level marketing – relationship marketing – selling through kiosks

Books for reference:

1. Chunawalla, s. A., sales management, 5th edition (2007), himalaya publishing house
2. Havaldar, krishna; sales and distribution management, 1st edition (2006), tata mcgraw hill
3. Perreault, jr., william; mccarthy, e. Jerome, basic marketing, 15th edition, 2006, tata mcgraw hill

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR VI SEMESTER
COURSE CODE: 7SBS6B4

COURSE II FRUIT AND VEGETABLE PRESERVATION SKILLS

Objectives:

- To understand the science, principles and techniques involved in fruits and vegetables preservation techniques
- To impart thorough knowledge on the technical skills in various aspects of food processing and preservation

Unit I
Principles, methods, types of preservation.
Preservation media and mode of action of preservation. Traditional & modern methods.

Unit II
Study of various types of equipments – care & precautions and usage.
Study of various types of containers.

Unit III
Vegetables & their product preservation methods
Importance of personal hygiene and sanitary standards

Unit IV
Fruits & their preservation

Unit V

Project:

1. Mapping of preservation practices & centre's

   (or)

2. Preservation practices specific to fruits & vegetables in your area
   (project report 15 to 25 pages)

Books for reference:

1. Srivastava r.p. and kumar.s "fruit and vegetable preservation: principles"
2. Ranjit singh "fruits" national book trust.
3. Girdhari lal tandon et al "preservation of fruit and vegetable products".

HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR VI SEMESTER
COURSE CODE: 4SBS6B5

COURSE III EQUIPMENT HANDLING SKILLS FOR EVENTS

Objectives:

- To impart the characteristics of various types of electrical and electronic equipments used in events
- To learn about the working, handling and troubleshooting skills on various electrical and electronic gadgets

Unit I

Event that require different electrical & electronic gadgets – positioning mikes, speakers, lcd projectors collar mikes & screen

Unit II PA system and audio recording

Components of pa system – working principles of amplifier, mike and speaker – wiring system trouble shooting and rectification – tape recorders and principles of operation – troubleshooting and maintenance

Unit III vcd/dvd handling and videography

Operating principles of vcd and dvd – tv connection – principles of videography – operation of video-cameras

Unit IV lcd operations and power-point presentation

Principles of lcd – mode setting – visibility adjustments – computer incorporation – power point presentation

Unit V photography and image editing

Principles – manual and digital cameras – view setting and focus – computer interface – image editing – cd writing.

Books for reference:

1. "using information technology" williams sawyer, hut chinson tata mc graw-hill
2. "introduction to information system" james a.o.bries tata mc graw-hill
3. "digital image processing" rafael c. Gonzalez richard e wood, prentice hall of india

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HUMAN VALUES & PROFESSIONAL ETHICS

இளங்கலை - தமிழ் - டீ.யு. வுயுஆஜடு

முதலாம் ஆண்டு - முதல் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயு1ஊ1

முதன்மைப் பாடம் தாள் 1- இக்கால இலக்கியம்

அலகு 1 : பாரதி - பாரதிதாசன் கவிதைகள்

அ. பாரதியார் - கண்ணன் பாட்டு - கண்ணம்மா முதல் 10 பாடல்கள்
ஆ. பாரதிதாசன் - அழகின் சிரிப்பு - புறாக்கள் முதல் 10 பாடல்கள்
இ. கண்ணதாசன் - மாங்கனி.

அலகு 2 : புதுக்கவிதை

நா.முத்துக்குமார் - பட்டாம்பூச்சி விற்பவன்
இன்குலாப் - சூரியனைச் சுமப்பவர்கள்

அலகு 3 : சிறுகதை

வண்ணதாசன் - 'ஒரு சிறு ஓசை' சிறுகதை தொகுப்பு

அலகு 4 : நாவல்

மு.வ. - அகல் விளக்கு

அலகு 5 : உரைநடை

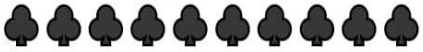
பொன்னம்பல அடிகளார் - உயிர்நாரில் தொடுத்த மலர்கள்.

HUMAN VALUES & PROFESSIONAL ETHICS

முதலாம் ஆண்டு - இரண்டாம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயு2ஊ1

முதன்மைப் பாடம்: தாள்: 3 - பக்தி இலக்கியம்

அலகு - 1	:	திருஞானசம்பந்தர்	-	கோளறு திருப்பதிகம்
		திருநாவுக்கரசர்	-	திருவையாறு திருப்பதிகம்
அலகு - 2	:	சுந்தரர்	-	திருத்தொண்டர் தொகை
		மாணிக்கவாசகர்	-	திருப்பள்ளி எழுச்சி
அலகு - 3	:	ஆண்டாள்	-	திருப்பாவை முதல் 10 பாடல்கள்
		பெரியாழ்வார்	-	மாணிக்கம் கட்டி 10 பாடல்கள்
அலகு - 4	:	எச்.ஏ.கிருட்டிணப்பிள்ளை	-	இரட்சண்ய யாத்திரிகம் - குமாரபருவம்-உலகம் மகிழ்ந்து ஈடேற எனத்தொடங்கும் பாடல் முதல் கீண்டிருப்பு எனத் தொடங்கும் பாடல் வரை (45 பாடல்கள்)
		குணங்குடி மஸ்தான் சாகிபு	-	பராபரக் கண்ணி முழுவதும்
அலகு - 5	:	இராமலிங்க வள்ளலார்	-	திருவருட்பா அப்பா நான் எனத் தொடங்கும் 10 பாடல்கள்
		தாயுமானவர்	-	சுகவாரி என்ற பகுதியில் அமைந்த 5 பாடல்கள் மட்டும்.



HUMAN VALUES & PROFESSIONAL ETHICS

இரண்டாம் ஆண்டு - நான்காம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயு4ஊ1

முதன்மைப்பாடம்: தாள் - 8 - காப்பிய இலக்கியம்

அலகு 1	-	சிலப்பதிகாரம்	-	புகார் காண்டம்- இந்திரவிழவூரெடுத்தகாதை மதுரைக்காண்டம் - வேட்டுவவரி வஞ்சிக்காண்டம் - குன்றக்குரவை
		மணிமேகலை	-	ஆபுத்திரன் திறம் உரைத்த காதை
அலகு 2	:	சீவக சிந்தாமணி	-	பதுமையார் இலம்பகம்
அலகு 3	:	கம்பராமாயணம்	-	குகப்படலம்
அலகு 4	:	பெரியபுராணம்	-	சிறுத்தொண்டர் புராணம்
அலகு 5	:	சீறாப்புராணம்	-	கதீஜா கனவு கண்ட படலம்
		தேம்பாவணி	-	மகன் நேர்ந்த படலம்

பார்வை நூல்:
1. உலகக் காப்பியங்கள் - முனைவர் இரா.காசிராஜன், ஊ டீஜயு, சென்னை.
2. காப்பியப் பார்வை - வ.சுப.மாணிக்கம், ஊ டீஜயு, சென்னை.
3. காப்பியக் களம் - வ.சுப.மாணிக்கம், ஊ டீஜயு, சென்னை.

HUMAN VALUES & PROFESSIONAL ETHICS

மூன்றாம் ஆண்டு - ஆறாம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயு6ஊ1

முதன்மைப் பாடம்: தாள் - 13 - சங்க இலக்கியம்

அலகு 1 : பத்துப்பாட்டு - முல்லைப்பாட்டு முழுவதும்

அலகு 2 : அ) நற்றிணை – முதல் 5 பாடல்கள் -
ஆ) குறுந்தொகை - ஒக்கூர் மாசாத்தியார் பாடல்கள் 5-
- 126,139,186,220,275
இ) ஐங்குறுநூறு – வேட்கைப் பத்து மட்டும்

அலகு 3 : கலித்தொகை முதல் 3 பாடல்கள்
(பாலைக்கலி (2) முல்லைக்கலி (101) நெய்தல் கலி (118)
அகநானூறு (5 பாடல்கள்) 17, 34, 71, 77, 265

அலகு 4 : பதிற்றுப்பத்து - கபிலர் பாடிய ஏழாம் பத்து (முதல் 5 பாடல்கள்)
புறநானூறு - 14, 27, 158, 293, 378

அலகு 5 : பரிபாடல் வையை-1 முதல் பாடல், செவ்வேள்-1 முதல் பாடல்

ENVIRONMENT & SUSTAINABILITY

முதலாம் ஆண்டு – இரண்டாம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயுயு2

இயைபுப்பாடம் - தாள் 2 நாட்டுப்புறவியல்

அலகு 1

நாட்டுப்புறவியல் விளக்கம் - நாட்டுப்புற இயலின் வகைப்பாடு – பயன்பாடு நாட்டுப்புறவியல் - நாட்டுப்புறக் கள ஆய்வு முறைகள்– நாட்டுப்புற இக்கியமும் எழுத்திலக்கியமும்

அலகு 2

நாட்டுப்புறவியல் கூறுகள் - கதைகள் - பழமொழிகள் - விடுகதைகள் - கதைப் பாடல்கள்

அலகு 3

நாட்டுப்புறப் பாடல்கள் - பல வகைப் பாடல்கள் - தாலாட்டு – விளையாட்டு – காதல் - தொழில் - கொண்டாட்டம் - விழா – ஒப்பாரிப்பாடல்கள்

அலகு 4

நாட்டுப்புறக் கலைகள் - சிலம்பாடடம் - காவடியாட்டம் - கரக ஆட்டம் - மயிலாட்டம் - கும்மியாடடம் - ஒயிலாட்டம் - பொய்க்கால் குதிரையாட்டம் - கணியான் ஆட்டம்

அலகு 5

நாட்டுப் புற வாழ்வியற் கூறுகள் - நம்பிக்கை – திருவிழாக்கள் - மருத்துவம் - தெய்வங்கள் - தொழில் நுட்பம் - கட்டடக் கலை.

பாடநூல்:

சு. சக்திவேல் - நாட்டுப்புறவியல் ஆய்வு,
மணிவாசகர் பதிப்பகம்,
110 வடக்கு ஆவணி மூலவீதி,
மதுரை – 1
0452 2622853

பார்வை நூல்கள்:

1. சு. சண்முகசுந்தரம் - நாட்டுபபுறவியல், மணிவாசகர் பதிப்பகம், சென்னை
2. ஆறு. இராமநாதன் - நாட்டுப்புற ஆய்வுகள்
3. தே. லூர்து - நாட்டார் வழக்காற்றியல் ஓர் ஆய்வு
4. சரசுவதி வேணுகோபால் - தமிழக நாட்டுப்புறவியல், தாமரை வெளியீடு

HUMAN VALUES & PROFESSIONAL ETHICS

முதலாம் ஆண்டு - முதல் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயு1ஊ2

முதன்மைப்பாடம் - தாள் 2 இலக்கணம் - நன்னூல் - எழுத்து

அலகு 1

பாயிரவகை - நூல், நூல் வகைகள் - எழுவகை மதம் - பத்துக்குற்றம் - பத்து அழ - முப்பத்திரண்டு உத்தி - சூத்திரம் - உரை, காண்டிகை, விருத்தி, ஆசிரியர், ஆசிரியர் ஆகாதார் இலக்கணம் - மாணாக்கர், மாணாக்கராகாதார் இலக்கணம் - பாடங்கேட்டலின் வரலாறு.

அலகு 2

எழுத்துக்களின் எண், பெயர், முறை - எழுத்துக்களின் பிறப்பு - முதலெழுத்துக்களும், சார்பெழுத்துக்களும் - எழுத்துக்கள் பிறக்குமிடம் - உருவம் - மாத்திரை - முதல் நிலை - இறுதி நிலை - போலி - சந்தியக்கரம் சாரியைகள்.

அலகு 3

பதம் - பகுபதம் - பகாப்பதம் - ஓரெழுத்து ஒரு மொழி - பகுதி - விகுதி - இடைநிலை - வடமொழியாக்கம் - பொதுப்புணர்ச்சி, வேற்றுமை, அல்வழிப் புணர்ச்சி, இயல்புப் புணர்ச்சி, விகாரப்புணர்ச்சி.

அலகு 4

உயிரீற்றுப் புணரியல் - எல்லா ஈற்றின் முன்னும் மெல்லினமும் இடையினமும் புணர்தல் - உயிரீற்றுச் சிறப்புப் புணர்ச்சி - உயிரீற்றின் முன் வல்லினம் - ஊ,ஏ,ஐ ஆகியவற்றிற்குச் சிறப்பு விதி.

அலகு 5

மெய்யீற்றுப் புணரியல், மெய்யீற்றின் முன் உயிர் - மெய்யீற்றின் முன் மெய் - ணகர, னகர, மகர, - யகர, ரகர, ழகர,ஈறுகள் - உருபுப்புணரியல் - எட்டு உருபுகள் சாரும் இடவகை - வேற்றுமை உருபுகள் நிலை மொழி வருமொழிகளோடு புணர்தல்.

பாடநூல்:

1. நன்னூல் எழுத்து : சங்கரநமச்சிவாயர் உரை, கழக வெளியீடு, மதுரை-1.

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HUMAN VALUES & PROFESSIONAL ETHICS

முதலாம் ஆண்டு - இரண்டாம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயு2ஊ3

முதன்மைப் பாடம் - தாள் 5 - தமிழக வரலாறும் பண்பாடும்

அலகு 1 :

புதைபொருள் ஆய்வால் வரலாற்றுக்கு முற்பட்ட தமிழகம் பற்றி அறியலாகும் உண்மைகள். சிந்துவெளியும், குமரிக்கண்டமும் தமிழ்ப் பண்பாட்டுடன் கொண்ட தொடர்புகள் - தமிழகம் அயல்நாட்டுடன் கொண்ட வாணிக பண்பாட்டுத் தொடர்புகள்.

அலகு 2 :

சங்கம் இருந்தமைக்கான சான்றுகள் - சங்க இலக்கியங்கள் பண்டைத் தமிழரின் வாழ்க்கை முறைகள்.

அலகு 3 :

களப்பிரர்கள் - பல்லவர்கள், சோழர்கள்.

அலகு 4 :

பாண்டியர்கள், நாயக்கர்கள்

அலகு 5 :

ஐரோப்பியர்கள், இந்திய விடுதலைப் போரில் தமிழகத்தின் பங்கு, இருபதாம் நூற்றாண்டில் தமிழகம்.

பார்வைநூல்:

1. தமிழர் நாகரிகமும் பண்பாடும் - டாக்டர் அ.தட்சிணாமூர்த்தி

பாடநூல்:

1. முனைவர் ந.அறிவுராஜ், முனைவர் ஆ.குமார், தமிழக வரலாறும், தமிழர் பண்பாடும், பாவை பப்ளிகே'ன்ஸ், 16 (142) ஜானி ஜான்கான் சாலை, இராயப்பேட்டை, சென்னை-14.

HUMAN VALUES & PROFESSIONAL ETHICS

இளங்கலை தமிழ்

முதலாம் ஆண்டு – முதற் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயுயு1

இயைபுப்பாடம் - தாள் 1- இதழியல்

அலகு 1

இதழியல் தோற்றம் வளர்ச்சி - இந்திய இதழியல் வரலாற்றுத் தொடக்கம் - இந்திய விடுதலைப் போராட்டத்தில் இதழ்களின் பங்கு

அலகு 2

இதழ்களின் பணி - இதழ்களின் மொழி நடை - இதழ்களின் நோக்கம் இந்திய மொழி இதழ்கள் - தமிழ் மொழி இதழ்கள்

அலகு 3

செய்தித்தாள் நிருவாகம் - அலுவலக அமைப்பு இயந்திரப் பகுதி விற்பனைப் பகுதி – செய்தி விளக்கம் - செய்தி வகைகள் - செய்தி சேகரிக்கும் மூலங்கள் - செய்தி எழுதுதல் - தலையங்கம் - கட்டுரை

அலகு 4

செய்தி ஆசிரியர் குழுவின் பணிகள் - துணை ஆசிரியர் - மெய்ப்புத் திருத்துநர் - செம்மையாக்கம் - செம்மையாக்கக் குறியீடு – பக்கப் புனைவு

அலகு 5

உலகச் செய்தி நிறுவனங்கள் - ராய்ட்டர் - அசோசியேட் பிரஸ் - இந்தியச் செய்தி நிறுவன்கள் - அசோசியேட் பிரஸ் ஆப் இந்தியா – டைம்ஸ் ஆப் இந்தியா – புனைடெட் நியூஸ் ஆப் இந்தியா - இதழ்களின் விளம்பரம்.

பாடநூல்: - இதழியல் கலை – மா.பா. குருசாமி, 6 வது தெரு, ஏ.கே. எம்.ஜி.ஆர். நகர், திண்டுக்கல்-1, 0451 2424853

பார்வை நூல் : - இதழியல் - இரா. கோதண்டபாணி
இதழியல் - ச.ஈஸ்வரன் பாவை பதிப்பகம், சென்னை

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GENDER

இரண்டாம் ஆண்டு - நான்காம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயுநு1டீ

விருப்பப் பாடம் - தாள் ஐ (டீ) - பெண்ணியம்

அலகு 1 - முதற் கட்டுரை முதல் ஆறாம் எண்ணுடைய கட்டுரை வரை

அலகு 2 - 7 ஆம் கட்டுரை முதல் 12 ஆம் எண்ணுடைய கட்டுரை வரை

அலகு 3 - 13 ஆம் கட்டுரை முதல் 18 ஆம் எண்ணுடைய கட்டுரை வரை

அலகு 4 - 19 ஆம் கட்டுரை முதல் 23 ஆம் எண்ணுடைய கட்டுரை வரை

அலகு 5 - 24 ஆம் கட்டுரை முதல் எண்ணுடைய கட்டுரை வரை

பாடநூல் - வாசுகி ஜெயரத்னம், பெண்ணியச் சுவடுகள், அறிவு பதிப்பகம், 142 ஜானி ஜான்கான் ரோடு, இராயப்பேட்டை, சென்னை-14.

மூன்றாம் ஆண்டு - ஆறாம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயுநு3டீ

விருப்பப் பாடம் - தாள் ஐஐஐ (டீ) - சுற்றுலாவியல்

அலகு 1 - 1 முதல் நான்காம் கட்டுரை வரை.

அலகு 2 - 5 முதல் 8 வரை.

அலகு 3 - 9 முதல் 12 வரை.

அலகு 4 - 13 முதல் 16 வரை.

அலகு 5 - 17 முதல் 20 வரை.

பாடநூல் - சி.பி. பொன்னுச்சாமி, சுற்றுலா வளர்ச்சியும் வாய்ப்பும், நியூசெஞ்சுரி புக் ஹவுஸ், சென்னை.

இரண்டாம் ஆண்டு - நான்காம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயுநு1யு

விருப்பப் பாடம் - தாள் ஐ (யு) - மனித உரிமைகள்

அலகு 1 - மனித உரிமைகள் வளர்ச்சிக் களங்கள்

அலகு 2 - இந்திய அரசியல் சட்டம் வழங்கும் அடிப்படை உரிமைகள் - மனித உரிமைகளின் ஊற்றுக்கண்.

அலகு 3 - மனித உரிமைப் பாதுகாப்புச் சட்டம், தேசிய மனித உரிமை ஆணையம், அமைப்பும் செயல்பாடுகளும்.

அலகு 4 - தேசிய மனித உரிமை ஆணையம் தேர்ந்தெடுத்த சில நடவடிக்கைகள்.

அலகு 5 - தெரிந்து கொள்ளுங்கள்.

பாடநூல் - இராஜமுத்திருளாண்டி, மனித உரிமைகள், நியூசெஞ்சுரி புக் ஹவுஸ், 41பி, சிட்கோ இண்டஸ்டிரியல் எஸ்டேட், அம்பத்தூர், சென்னை-98.

HUMAN VALUES & PROFESSIONAL ETHICS

மூன்றாம் ஆண்டு – ஐந்தாம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயுநு2டீ

விருப்பப் பாடம் - தாள் ஐஐ (டீ) – தன் மேம்பாட்டியல்
ய

அலகு 1 - முதல் நூல்

அலகு 2,3,4,5 - இரண்டாம் நூல்

பாடநூல்கள்:

1. சோம. வள்ளியப்பன், நீ அசாதாரணமானவன் (ள்), ஆப்பிள் பப்ளிகே'ன்ஸ், 130, நெல்சன் மாணிக்கம் ரோடு, சென்னை-29, இந்தியா.
2. க.இராமச்சந்திரன், வாழும்போதே வானைத்தொடு, நியூசெஞ்சுரி புக்ஹவுஸ், சென்னை.

HUMAN VALUES & PROFESSIONAL ETHICS

மூன்றாம் ஆண்டு - ஐந்தாம் பருவம்
பாடக்குறியீட்டு எண்: 7டீவுயு5ஊ1

முதன்மைப் பாடம்: தாள் - 10 - அற இலக்கியம்

அலகு 1 : திருக்குறள் - நட்பு, நட்பாராய்தல் - தீ நட்பு, கூடா நட்பு, பெரியாரைத் துணைக்கோடல்

அலகு 2 : நாலடியார் - அறிவுடைமை - 10 பாடல்கள்

அலகு 3 : முதுமொழிக்காஞ்சி - சிறந்த பத்து
சிறுபஞ்சமூலம் - படைதனக்கு, கல்லாதான் கண்வனப்பு, சிலம்பக்கு தன்சினை, நானிலான் பெருங்குணத்தார் சேர்
ஔவையார் - மூதுரை - 5 பாடல்கள்

அலகு 4 : அதிவீரராம பாண்டியர் - வெற்றி வேற்கை
எழுத்து அறிவித்தவர் 10 தொடர்கள்
யானைக்கு - 10 தொடர்கள்

அலகு 5 : குமரகுருபரர் - நீதிநெறி விளக்கம், 49,50,51,52,53
சிவப்பிரகாசர் - நன்னெறி, 17,18.19,20,21

GENDER

III YEAR V SEMESTER
COURSE CODE: 7BEN5C2

CORE COURSE X WOMEN'S WRITING IN ENGLISH

Unit- I	poetry
	E.b. browning - how do i love thee? Let me count the ways
	sylvia plath - daddy
	maya angelo - still i rise
Unit- II	prose
	virginia woolf - a room of one's own
Unit – III	drama
	manjula padmanapan - harvest
Unit-IV	novel
	alice walker - the colour purple
Unit- V	short stories
	katherine mansfield - a cup of tea
	geetha goswami - the lost shore
	alice munro - silence

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HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR II SEMESTER
COURSE CODE: 7BEN2C2

CORE COURSE IV POETRY - II

Unit – I

geoffrey chaucer - prologue to canterbury tales
(first 100 lines)

edmund spencer - epithalamion

Unit - II

john milton - paradise lost (book ix)

Unit - III

john donne - valediction forbidding mourning

george herbert - the gifts of god

Unit - IV

john masefield - laugh and be merry

alfred noyes - the highway man

Unit - V

oliver goldsmith - the village school master

thomas gray - elegy written in a country churchyard.

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GENDER ENVIRONMENT & SUSTAINABILITY HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR III SEMESTER
COURSE CODE: 7BEN3C1

CORE COURSE V PROSE

Unit - I

francis bacon - of studies
- of revenge
- of friendship

Unit- II

joseph addison - the vision of mirza
richard steele - the spectator club

Unit – III

charles lamb - a dissertation upon roast pig
- bachelor's complaint

oliver goldsmith - the man in black – (the citizen of the world – letter xxi)

Unit – IV

jonathan swift - the battle of the books

Unit – V

rl. Stevenson - an apology for idlers
g.k. chesterton - on running after one's hat.

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GENDER, ENVIRONMENT & SUSTAINABILITY, HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR III SEMESTER
COURSE CODE: 7BEN3C2

CORE COURSE VI DRAMA - I

Unit - I
christopher marlowe - dr. Faustus
Unit - II
thomas kyd - the spanish tragedy
Unit - III
ben jonson - the alchemist
Unit - IV
sheridan - the rivals
Unit - V
g.b shaw - caesar and cleopatra

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR V SEMESTER
COURSE CODE: 7BEN5C1

CORE COURSE IX INDIAN WRITING IN ENGLISH

Unit -I	poetry
	sir aurobindo - the fear of life and death
	rabindranath tagore - where the mind is without fear
	sarojini naidu - love and death
Unit - II	poetry
	Toru dutt - lakshman
	nissim ezekiel - goodbye party for miss pushpa. T.s
	kamala das - a hot noon in malabar
Unit - III	prose
	mahatma gandhi - tolstoy and the youth
	sir c.v. raman - water the elixir of life
	jawaharlal nehru - kamala nehru
Unit -IV	drama
	mahesh dattani - seven steps around fire
Unit - V	fiction
	chetan bhagat - the three mistakes of my life.

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GENDER, ENVIRONMENT & SUSTAINABILITY, HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER
COURSE CODE: 7BEN5C3

CORE COURSE – XI- COMMONWEALTH LITERATURE

Unit -I	poetry	
	derek walcot	- a far cry from africa
	razia khan	- my daughter's boyfriend
	Margaret atwood	- the city planners
Unit - II	poetry	
	allen curnow	- house and land
	e.j.pratt	- the dying eagle
	david diop	- africa
Unit -III	prose	
	chinua achebe	- the novelist as a teacher
	dr.s.radhakrishnan	- the world community
Unit - IV	drama	
	wole soyinka	- the lion and the jewel
Unit - V	fiction	
	margaret atwood	- the edible woman

GENDER, HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER
COURSE CODE: 7BEN6C1

CORE COURSE – XII-SHAKESPEARE

Unit I general shakespeare

1. Audience
2. Theatre
3. Clowns
4. Women
5. Soliloquy
6. Supernatural elements

Unit – II sonnets

no:- 116, 73, 29, 33, 104

Unit III drama

king lear

Unit IV

A midsummer night's dream

Unit V

the merchant of venice

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GENDER, ENVIRONMENT & SUSTAINABILITY, HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – I SEMESTER
COURSE CODE: 7MEN1C1

CORE COURSE I – BRITISH LITERATURE-I (CHAUCER TO MILTON)

Objectives

1. To acquaint students with the important features of british literature
2. To give students training in appreciating the poetic qualities and techniques in british poetry
3. To introduce learners to the origin of english essays
4. To make learners understand the features of dramas (tragedy and comedy) of shakespeare's predecessors.

Unit I poetry

Geoffrey chaucer	-	prologue to the canterbury tales: (knight, frair, prioress, parson, wife of bath)
Edmund spenser	-	prothalamion

Unit II poetry

John donne	-	ecstasy
John milton	-	paradise lost – book iv

Unit III prose

Francis bacon	-	essays of bacon: of parents and children, of marriage and single life, of simulation and dissimulation, of ambition.
The bible (authorized king james version)	-	gospel according to st.mark

Unit IV drama

Christopher marlowe	-	edward - ii

Unit V

Ben jonson	-	the silent woman

Books for reference:

Palgrave's *golden treasury*. New delhi: oxford & ibh

GENDER, ENVIRONMENT & SUSTAINABILITY, HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – III SEMESTER
COURSE CODE: 7MEN3C2

CORE COURSE - X – NEW LITERATURE

Objectives

1. To enable students understand the dimensions of new literature
2. To help students identify the various themes presented in new literature

Unit I poetry

Judith wright	-	the harp and the king (australia)
F.r.scott	-	laurentian shield (canada)
Yasmine gooneratne	-	there was a country (srilanka)

Unit II poetry

Wole soyinka	-	dedication from moremi (africa)
Derek walcott	-	blues (west indies)
A.r.d fairbun	-	i am older than you, please listen (newzealand)

Unit III prose

Chinua achebe	-	the nature of the individual and his fulfillment
Swami vivekananda	-	the secret of work

Unit IV drama

Wole soyinka	-	the swamp dwellers
Mahesh dattani	-	tara

Unit V fiction

Bapsi sidhwa	-	ice – candy man
Nadine gordimer	-	july's peo

GENDER , HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – III SEMESTER
COURSE CODE: 7MEN3E2

ELECTIVE COURSE III (B) – SUBALTERN LITERARY STUDIES

(INCLUDING DALIT LITERATURE IN TRANSLATION)

Unit I poetry

Arjun dangle – no entry for the new sun

Unit II prose

Ngugi wa thiong'o – de- colonizing the mind
– the politics of language in african literature
Gayathri spivak – feminism and critical theory

Unit III drama

Mahesh dattani – on a muggy night in mumbai

Unit IV fiction

V.s.naipaul – an area of darkness
Chinua achebe – an arrow of god

Unit V fiction

Bama – karukku

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GENDER, ENVIRONMENT & SUSTAINABILITY,HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – III SEMESTER
COURSE CODE: 7MEN4E1

ELECTIVE COURSE -IV (A) – COMPARATIVE LITERATURE

Objectives

1. To help students understand comparative literature in relation to national, world and general literature
2. To enable students understand other schools of comparative literature
3. To expose students to the different categories of comparative literature

Unit I

The term 'comparative literature'
Definition
Scope

Unit II

The history of comparative literature as a scholarly discipline

Unit III

Comparative literature in relation to
1. National literature
2. World literature
3. General literature

Unit IV

Other schools of comparative literature
1. The french
2. The american etc.

Unit V

Some categories of comparative literature
1. Thematology
2. Reception
3. Influence
4. Genres

Books for reference:

1) Newton stall knecht horst frenz – *comparative literature: method and perspective*

2) R.wellek & a.warren – *theory of literature*
3) W.friederich and d.malone – *outline of comparative literature*
4) Shipley – *dictionary of world literature*

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HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – IV SEMESTER
COURSE CODE: 7MEN4C1

CORE COURSE - XII – ASPECTS OF ENGLISH LANGUAGE AND LINGUISTICS

Objectives

1. To acquaint students with the history of the english language
2. To help students learn the essential aspects of linguistics
3. To give students practice in phonetic transcription
4. To enable students understand ic analysis

Unit I the english language

1. The origin of language
2. Place of english in the indo-european family of languages
3. Grimm's law and verner's law
4. Word making in english
5. Standard english
6. American english

Unit II phonology

1. Organs of speech
2. The vowels of english
3. Diphthongs of english
4. Consonants of english
5. Transcription
6. The syllable and received pronunciation
7. Accent, rhythm and intonation
8. Received pronunciation

Unit III linguistics

1. Characteristics of language
2. What is linguistics?
3. Dialect-idiolect-register-psycho linguistics- socio linguistics
4. What is grammar?
5. Structural phonology & morphology

Unit IV grammar and usage

1. Traditional grammar –its limitation and problems
2. Structural grammar, ic analysis
3. Theories of semantics
4. Pragmatics and discourse

Unit V error analysis

Common mistakes committed by the students in english–suggested remedial measures

Books for reference:

1. Gimson, a.c., *an introduction to the pronunciation of english*, london, elbs
2. Gleasm.h, an *introduction to descriptive linguistics*,newyork:holt, rinehart&winston
3. Halliday : m.a.k., *lingustic sciences and language teaching*
4. Hocket, c.f.a *course in modern linguistics* : new delhi : oxford & ibh

5. Jesperson, otto *essentials of english gramma*r, london: geroge allen unwin.
6. Lado. R *linguistics across cultures* ann arbor: university of michigan press.
7. Wood.f.t *an introduction to the study of english language*, oxford: oup
8. Wren. C.l. *the english language*, london : methuen & co., ltd

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER
COURSE CODE: 7BENE1A

ELECTIVE COURSE – I (A)- TRANSLATION STUDIES, THEORY AND PRACTICE

Unit – I

introduction to translation- history of translation- definition- types of translation

Unit- II

Decoding and recoding
Problems of equivalence- history of translation theory

Unit- III

Specific problems of literary translations

Unit - IV

translating literary texts

1. Thirukkural – first two chapters from g.u.pope's translation.
2. Bharathiar – our mother land
3. T.s.pillai - chemmeen

Unit - V

translation & practice (tamil into english and vice versa)

Books for reference:

1. Savoury theodore - the art of translation
2. Susan bassnett - translation studies (methuene)

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ENVIRONMENT AND SUSTAINABILITY

III YEAR - V SEMESTER
COURSE CODE: 7BBAE1A

ELECTIVE COURSE –I (A) TOURISM MANAGEMENT

Unit I

History of travel and tourism – ancient, medieval and contemporary periods – tourism – definition – forms – motivation for travel – barriers to travel – tourism product – travel industry network.

Unit II

International tourism – top tourism promoting countries – major destinations – spending and earnings by different countries and other details – domestic tourism – indian tourism – tourist attractions – preferred places – historical past – culture – seasonality – foreign exchange earnings – profile of visitors – factors influencing tourism development – social, economic and environmental impact on tourism.

Unit III

Tourism and the state – national tourism administration (nta) – comparative study of ntas of various countries – activities of department of tourism – india tourism development corporation (itdc) – state tourism development corporations (stdcs) – tourism planning – need for planning – process of planning,

Unit IV

Surface transport – airline industry – travel agents – functions – automation in travel industry – computerised reservation system – importance of crs for travel agents – world tourism organisation – international air transport association.

Unit V

Hotel industry – types of tourist accommodation – management system of hotels – franchise, management contracts, referral systems – hotel industry in india – finance, concessions and incentives given by government – major hotel chains of india – tourism promotion – role and importance – advertising and publicity.

Books recommended:

1. Successful tourism management (vol.: i) – fundamentals of tourism – pran seth
2. Successful tourism management (vol.: ii) – tourism practices – pran seth
3. International tourism management – a.k.bhatia
4. Tourism marketing – s.m.j

HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – I SEMESTER
COURSE CODE: 7BBA121

ENGLISH LANGUAGE COURSE – I - BUSINESS ENGLISH

Unit I

Basic english grammar – tenses and voices – simple exercises – paragraph construction – essay writing – developing hints into paragraphs / essays – comprehension of a given passage.

Unit II

Business letters – different structural forms – parts of a business letter – essentials of an effective business letter – simple business letters: placing order, complaint letter & sales letter.

Unit III

Job application letters – bio-data – testimonials – interview call letter – appointment order – complaint / request letters to public authorities – letters to the editor

Unit IV

Internal communications – office memorandums – office circulars – charge sheets – letters of confirmation, promotion, termination and resignation

Unit V

Characteristics of good advertisement copy – structure of an advertisement copy – types of advertisement copy – writing effective advertisement copy – exercises on writing advertisement copy for products and organizations – email – guidelines in managing emails.

Books for reference:

1. Essentials of business communication – rajendra pal & j.s.korlahalli
2. Effective business english correspondence – ramesh & pattanshetti
3. Developing communication skills – krishna mohan & meera banarji
4. Business communication strategies – matthukutty m. Monipally

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HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – I SEMESTER
COURSE CODE: 7BBA1C1
CORE COURSE-I – MANAGERIAL ECONOMICS

Unit I

Managerial economics: meaning, nature and scope ; managerial economics and bussiness decision manking - demand analysis – types of demand – determinants of demand – why the law of demand – why demand curve slopes downward – law of supply – law of diminishing marginal utility – concept of consumer surplus.

Unit II

Elasticity of demand – types – indifference curve analysis – returns to scale – increasing returns to scale – diminishing and constant returns to scale.

Unit III

Concept of cost – break even point – national income – measurement and its difficulties.

Unit IV

Concept of normal profit – scales maximization principle. Monopoly – monopolistic competition – economics of bulk purchase. Perfect competition – imperfect competition, oligopoly.

Unit V

Functions of money – role of commercial banks – rbi – methods of credit control – monetary and fiscal policies.

Suggessted reading:

1. Principles of economics - m.l.jhingan
2. Micro economics - m.l.seth
3. The indian economics - ishwar c.dhingra
4. Managerial economics - jorl dean

HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – II SEMESTER
COURSE CODE: 7BBA221

ENGLISH LANGUAGE COURSE - II - BUSINESS REPORT WRITING

Unit I

Introduction: need for developing report writing skill – business reports: meaning and characteristics – kinds of business reports – steps in drafting formal business reports – structure of a business report.

Unit II

Report by individuals – situations – points to be considered in writing individual reports – routine, analytical and investigative reports – reports by company secretary: statutory and other reports – exercises.

Unit III

Committee reports – reports on problems / opportunities in business – writing agenda and minutes – essentials in writing minutes – minutes of various meetings – exercises.

Unit IV

Art of summarizing reports – precis writing practice – public relations department: importance – functions of pro – external and internal relations.

Unit V

Press reports – importance – writing press releases by companies – occasions – market reports – nature – writing simple market reports – exercises.

(note: questions must be asked 60% in writing model reports / minutes and précis which are covered in units ii, iii and v – remaining 40% questions on theory)

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HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – II SEMESTER

COURSE CODE: 7BBA2C2

CORE COURSE - IV - COST ACCOUNTING

Unit I

Cost accounting – meaning – objectives – functions – importance – advantages and limitations – cost accounting vs financial accounting – cost analysis – cost elements – classification and methods – cost unit and cost centre.

Unit II

Materials control – objectives and advantages – purchasing – centralized and decentralised purchasing – merits and demerits – stock levels – eoq, bin card – abc analysis – stores ledger– material issues – fifo, lifo, simple average and weighted average methods.

Unit III

Labour – direct and indirect labour – labour turnover – methods of wage payment – incentive plans.

Unit IV

Overheads – meaning – classification of overheads – allocation and absorption of overheads– reconciliation of cost and financial accounts.

Unit V

Preparation of cost sheet – unit or output costing – meaning – tenders and quotation.

Text books

1. Cost accounting – s.p.jain and k.l.narang
2. Cost accounting – rsn pillai and mrs.bhagavathi
3. Cost accounting – sp.iyangar
4. Cost accounting – t.s.reddy and a.murthy margham publishers.

(note: questions must be 60% of problems and 40% of theory parts)

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HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – III SEMESTER
COURSE CODE: 7BBA3C3

CORE COURSE - VII - COMPUTER APPLICATIONS IN BUSINESS - I

UNIT I

Introduction to computers – computers software languages – flow charting – programming concepts – assembly language – high level language – operating system – compilers – assemblers – packages.

Unit II

Ms word – introduction to word – creating word document – formatting – spell check – grammar check – working with tables – saving, opening and closing document – mail merge.

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Unit III

Ms powerpoint – creation – insert picture – animation – creating multimedia presentations– insert tables and graphs

Unit IV

Ms excel – introduction – spreadsheet – entering data in working sheets – editing and formatting worksheets – charts – functions like saving, opening and closing work book.

Unit V

Introduction to internet – browsers – search engine – www – internet protocols – ftp – telnet – http – email – how to create email – internet vs intranet – webpage – url.

Book for reference:

Complete reference on ms office – deitel & deitel

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR - V SEMESTER
COURSE CODE: 7BBA5C3

CORE COURSE-XIV- HUMAN RESOURCE MANAGEMENT

Unit I

Hrm: definition and meaning – difference between human resource management and personnel management – hrm: objectives – scope – functions – future of hrm.

Unit II

Recruitment: meaning – sources – recruitment process – selection: meaning, procedure – types of tests – advantages and disadvantages – interview: types – placement and introduction – job analysis –. Job description:– job specification - job evaluation: objectives – methods of job evaluation .

Unit III

Training and development: meaning, need, importance – types of training. Executive development: meaning, objective and importance of executive development – methods of executive development.

Unit IV

Wage and salary administration: objectives and principles of wages and salary administration – components and methods of wage payment promotion, transfer and demotion. Performance appraisal: meaning, methods of performance appraisal.

Unit V

Industrial relations: meaning, objective and importance of ir – causes for poor industrial relations-workers' participation in management – concept need and forms of workers' participation in management – collective bargaining – definition, features, essentials and role of collective bargaining – collective bargaining in india.

Books recommended:

1. Human resource management – shashi k. Gupta
2. Human resource management – c.b.memoria
3. Human resource management – s.s. khanka
4. Personnel management and industrial relations – tripathi and reddy.
5. Human resource management: text and cases _ sundar.k

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR - V SEMESTER
COURSE CODE: 7BBAE2B

ELECTIVE COURSE-II - (B) - INSURANCE MANAGEMENT

Unit I

Concept of insurance – nature – role and importance of insurance management – principles and functions – role of an insurance company manager.

Unit II

Nature of life insurance – classification of policies – selection of risk – measurement of risk– surrender value – valuation and surplus – management of lic of india.

Unit III

Nature of marine insurance contracts – classification of policies – policy conditions – premium calculations – marine losses – payment claims – management of marine insurance – role of manager in marine insurance business – recent trends in marine insurance business.

Unit IV

Nature and uses of fire insurance – fire insurance contract – kinds of policies – policy conditions – rate fixation in fire insurance –payment of claim – management of fire insurance– role of a manager in fire insurance – recent trends in fire insurance business.

Unit V

Motor insurance – burglary insurance – personal accident insurance – rural insurance in india – role of a manager of these insurance – privatisation of insurance industry and its impacts.

Recommended books:

Insurance- principles and practice – m.n.mishra.

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Iii year - vi semester
COURSE CODE: 7BBA6C3

CORE COURSE - XVII - BUSINESS LAW

Unit I

Meaning of law – importance – commercial law – meaning – importance – law of contracts –contract – meaning – types – essentials of a valid contract – offer – acceptance– consideration– capacity of parties

Unit II

Free consent – misrepresentation – fraud – co-ercion – undue influence – breach of contract – discharge of contract – contract of indemnity and guarantee.

Unit III

Sale of goods act,1930 – essentials of a contract of sale – conditions and warranties – transfer of property – unpaid seller – rights.

Unit IV

Law of agency – agent –meaning, types – duties, liabilities and rights of agent and principal – creation and termination of agency.

Unit V

Companies act 1956 – company: meaning – types – characteristics of a company – formation of a company – necessary documents – memorandum and articles – introduction about capital and shares – brief introduction about company management.

Text books:

1. Commercial law – n.d. kapoor
2. A manual of mercantile law – m.c.shukla
3. Mercantile law – m.j.sethna
4. Business law – r.s.n.pillai & bagavathi

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III YEAR – V SEMESTER
COURSE CODE: 7BCO5C3

CORE COURSE - XV – COMMERCIAL LAW

Unit I contract act (sec. 1 to 75)

Essentials of valid contract – proposal – acceptance – communication – revocation – consideration – capacity of parties – consent – coercion – influence – frauds – misrepresentation – mistake – void agreements – illegal and unlawful agreements – opposed to public policy – contingent contract – performance of contract – discharge of contract – breach of contract – remedies for breach of contract.

Unit II contract of indemnity and guarantee (sec. 124 to 129 and sec. 140 to 143)

Contract of indemnity and contract of guarantee – distinction between contract of indemnity and contract of guarantee – features of a contract of guarantee – kinds of guarantee – right of subrogation.

Unit III bailment and pledge (sec. 148 to 181)

Essentials – duties of bailor and bailee – termination of bailment – common carrier as bailee– pledge – rights and duties of pawnor and pawnee – pledge by non-owners – pledge distinguished from mortgage, lien, hypothecation and sale.

Unit IV law of agency (sec. 182 to 238)

Contract of agency – types of agency – kinds of agents – extent of agent's authority – delegation of authority – ratification – termination of agency – liability of principal and agents towards third parties.

Unit V sale of goods act

Definition of the term contract of sale, goods, insolvent, mercantile agent, price, property, delivery, documents to the title of goods: bill of lading, delivery order, railway receipt – difference between bill of lading and other documents of title to goods – distinction between sale and agreement to sell – sale and hire – purchase – essentials of a contract of sale – conditions and warranties – doctrine of caveat emptor – sale by non-owners – rights and duties of seller and buyer – rights of an unpaid seller.

Books for reference:

1.elements of mercantile law : n.d.kapoor sultan chand &sons

2.mercantile law : m.c.shukla,chand & company publishers
3.business and corporate law : p.c.tulsian,tata mcgraw hill publishing co.,
4. Company law : m.r.srinivasan,margham, publications.
5. Business law : r.s.n pillai and bhagavathi s.chand &co.,

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III YEAR – VI SEMESTER
COURSE CODE: 7BCO6C3

CORE COURSE - XVIII – INDUSTRIAL LAW

Unit I the factories act, 1948

Preliminaries – inspecting staff – health, safety and welfare of workers – working hours of adults – employment of children, women and young persons – leave with wages.

Unit II the trade unions act, 1926

Definitions – registration of trade unions – rights and liabilities of trade unions – fund for political purposes – general funds – amalgamation of trade unions – immunity from civil and criminal liability – books and returns – penalties – dissolution. The minimum wages act, 1948 – interpretation – minimum wages – procedure for fixing wages – committee and advisory boards – wages in kind – payment of minimum wages.

Unit III the industrial disputes act, 1947

Definitions – authorities under the act – strikes and lock outs – lay off and retrenchment.

Unit IV the workmen's compensation act, 1923

Nature and scope – definitions – rules regarding workmen's compensation – meaning of accident – amount of compensation: permanent, partial and temporary disablement.

Unit V the employees' provident funds act, 1952

Preliminaries – provident fund scheme – provisions regarding contribution to the fund. The employees' state insurance act, 1948 – nature and scope – contribution – benefits – disputes and claims.

Books for reference:

1. Elements of mercantile law : n.d.kapoor sultan chand &sons

2. Mercantile law : m.c.shukla,chand & company publishers
3. Business and corporate law: p.c.tulsian,tata mcgraw hill publishing co.,
4. Company law : m.r.srinivasan,margham, publications.
5. Business law : r.s.n pillai and bhagavathi s.chand &co.,

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III YEAR – VI SEMESTER
COURSE CODE: 7BCOE3B

ELECTIVE COURSE - III (B) – ENTREPRENEURSHIP DEVELOPMENT

Unit I

Entrepreneur – Meaning – Importance – Definition – Types – Functions – Qualities of an Entrepreneur – Entrepreneurship as a career.

Unit II

Business Promotion – Product selection – Form of ownership – Plant location – land, building, water and power, raw material, machinery, power and other infrastructural facilities– Licensing, registration and local bye laws.

Unit III

Institutional arrangements for entrepreneurship development – DIC, SIDCO, NSIC, SISI – Institutional finance to entrepreneurs – TIIC, SIDBI, Commercial banks – Incentives to small scale industries.

Unit IV

Project report – Meaning and importance – Project report – Format of a report (as per requirements of financial institutions) – Project appraisal – Market feasibility – Technical feasibility – Financial feasibility and economic feasibility – Break even analysis.

Unit V

Entrepreneurship development in India – Women entrepreneurship in India – Sickness in small scale industries and their remedial measures.

Books Recommended:

1. Entrepreneurship development – Joseph Paul, N. Ajit kumar and T.Mampilly – Himalayan Publishing House
2. Entrepreneurship Development Programmes in India – M.A.Khan – Kanishka Publishing House – Delhi
3. Dynamics of Entrepreneur Development and Management – Vasant Desai,Himalayan Publishing House
4. Entrepreneurial development – P. Saravanavel – Ess Pee Kay Publishing House
5. Entrepreneurship and Management of Small business – Centre for Entrepreneurship Development, Madurai

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III YEAR – V SEMESTER
COURSE CODE: 7BCOE1A

ELECTIVE COURSE - I (A) – INCOME TAX – I

Unit i

Introduction – history of income tax of india – objectives of taxation – characteristics of good tax system – distinction between direct tax and indirect tax.

Unit ii

Definition – agricultural income – previous year – assessee – assessment year – person – principal officer – residential status – deemed income – capital and revenue – tax liability – incomes exempted from tax.

Unit iii

Income from salary – salary – meaning – definition – allowances – provident fund – perquisites – computation – income from house property – meaning – exemption – annual value – municipal value – net annual value – computation.

Unit iv

Profits and gains from business or profession – differences between business and profession – admissible and inadmissible deduction – computation of taxable income from business or profession.

Unit v

Capital gains – income from other sources – capital assets – kinds of transfer - procedure – cost of acquisition, improvement – indexed value of cost of acquisition and improvement – computation.

Books for reference:

1. Income tax law and accounts – mehrothra and goyal, sahithya bhavan publications.
2. Income tax – vinodhk.singhania,monica singania,taxmann publications
3. Income tax,theory , law & practice – t.s.reddy,y.prasad, Margham publications
4. Income tax, law & practice – a.jeyakumar & n.hariharan,vijay nico

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III YEAR – V SEMESTER
COURSE CODE: 7BCO5C2

CORE COURSE - XIV – COSTING

Unit I

Definition of Costing – Importance – Uses of costing – Objectives - advantages – Differences between Cost and Financial accounts – Installation of costing system – Analysis and classification of costs – Preparation of cost sheet.

Unit II

Materials: Purchase procedures – Requisition for materials – Issue of materials: First In First Out, Last In First Out – Simple Average – Weighted Average – Recording and controlling of materials – Maintenance of stores: minimum level, maximum level, reorder level, Economic Ordering quantity – Perpetual inventory – Control over wastage, scrap and spoilage.

Unit III

Methods of remunerating labour: Incentive schemes – Idle time – Control over idle time – Job evaluation – Merit rating – Time study – Labour turnover – Meaning and measurement.

Unit IV

Accounting overheads – Fixed and variable overheads – Basis of charging overheads – Allocation – Apportionment and Absorption – Distinction between works overhead, administration overhead, selling overhead and distribution overhead – Distribution of service overheads.

Unit V

Job costing – Process costing – Normal loss, abnormal loss and abnormal gains – Effectiveness – Equivalent – Production (excluding By – products and joint products).

Books for Reference:

1.Cost accounting : SP.Jain and KL. Narang , Kalyani Publishers.
2.Cost accounting : Das Gupta, Sultan Chand &Sons
3.Cost accounting : R.S.N.Pillai and Bhagvathi, S.Chand &Co.,
4.Cost accounting : S.P. Iyengar, Sultan Chand &Sons
5.Cost accounting : T.S.Reddy, Margham Publications.
6.cost accounting : v.s.p.rao, vrinda publications

NOTE:THE QUESTION PAPER SHALL CONTAIN 60% PROBLE

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II YEAR – IV SEMESTER
COURSE CODE: 7BCO4C2

CORE COURSE - X – BANKING LAW AND PRACTICE

Unit i

Banker and customer: meaning – definition – general relationship between a banker and a customer: primary and subsidiary – special features of relationship: obligations and rights of a banker – rule in clayton's case.

Unit ii

Bankers as borrowers: savings account – current account – fixed deposit – fixed deposit receipt and its legal implications – general procedure for opening accounts – pass book: meaning and maintenance – effects of wrong entries – special types of customers: minors – firms – limited companies – non trading concerns – joint accounts – closing of an account– garnishee order.

Unit iii

Cheque: meaning – definition – essentials – cheque vs bill of exchange – drawing up of a cheque – banker's cheque – consequences of drawing up of a cheque without sufficient balance – material alteration: case law – examples – banker's duty – immaterial alteration – marking – crossing: meaning – types and significance of crossing.

Unit iv

Endorsement: meaning – definition – kinds – significance – paying banker: precautions – circumstances for dishonour of cheques – payment in due course – statutory protection – forgery of drawer's signature – payment by mistake – consequences of wrongful dishonour of cheques.

Unit v

Collecting banker: duties – statutory protection – concept of negligence – knowledge of various forms used in day to day banking: cheque – pay in slip – withdrawal form – transfer form – draft – bill of exchange – promissory note – fdr – traveller's cheque – credit card – letter of credit.

Books for reference:

1.banking theory, law and practice : e.gordon & k.natarajan,himalaya publications
2.banking theory, law and practice : sundaram and varshney, sultan chand & co.,
3.banking theory, law and practice : s.gurusamy, vijay nicole imprints.
4.banking theory, law and practice : s.n.maheshwari, sultan chand & co.,
5.modern banking theory : r.r. paul, kalyani publishers

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II YEAR – III SEMESTER
COURSE CODE: 7BCO3C1

CORE COURSE - V – PRINCIPLES OF INSURANCE

Unit I

Origin of insurance – Definitions of Risk, Peril, Hazard – Methods of treating risk – Types of insurance organizations. Main forms of insurance – Essentials of a sound insurance plan – Contract of insurance – Classification of insurance - Contracts – Personal, property, liability, and guarantee Fundamental principles – good – faith, insurable interest, indemnity, subrogation, double insurance, reinsurance – Functions and importance of insurance.

Unit II

Life insurance – fundamentals of life contract – principles – types – annuity contract insurance & annuity compared – Various types of annuity Theory of insurance – Theory of probability – Theorem of large numbers. Premium computation – Assessment plan – Natural premium plan – Mortality tables – Construction of mortality tables for annuities – Life fund valuation – Investment of fund – Suitability of various types of investment – Surplus and its distribution.

Unit III

Procedure for taking a life policy – Proposal, agents' report, medical examination, hazards of residence, occupation, war risks – financial position, past history etc.

Unit IV

Policy conditions – Proof of age – Payment of premiums – Days of grace – Commencement of risk – Ante dating – Critical expenses – Hazardous occupation – Alteration – Additional assurance – Suicide – Lost policies – Assignment – Nomination – Incontestable clause – Settlement of claim – Lapsing of policy – Revival of policies – Redating – Surrender value – Paid up value – Role of L.I.C. of India – Case for and against privatization of L.I.C. – Present scenario.

Unit V

Nature of marine insurance contract – Marine policies – Conditions of marine losses – Payment of claims. Nature and use of fire insurance – contract – Kinds of polices – Rate fixing in fire insurance – Payment of claim – Reinsurance. Emerging trends in insurance.

Books for Reference:

1. Principles and Practice of Insurance, P.Periasamy, Himalaya Publishing House.
2. Insurance : Principles and Practice, M.Manoharan, Palani Paramounts Publications.
3. Elements of Insurance : A. Murthy, Margham Publications.
4. Elements of Insurance : N.Premavathi, SriVishnu Publications.
5. Insurance - Principles and Practice – M.N.Mishra,Himalaya Publications.

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I YEAR – II SEMESTER
COURSE CODE: 7BCC2C2

CORE COURSE - IV – COMPUTER NETWORKS

UNIT - I

Building a Networks - Requirements - Layering and protocols - Internet Architecture- Line configuration - Topology - Transmission Modes - Categories of Network: LAN, MAN, WAN - Layering and protocols- OSI Layer. Physical Layer: Analog and Digital Signals Performance - Transmission Media.

UNIT – II

Data Link Layer: Internet Architecture – Network software – Performance ; Link layer Services - Error Detection and correction – Introduction – Block Coding – Cyclic Redundancy Check – Framing – Flow and error Control – Data link layer protocols: stop - wait protocol and sliding window protocol -. Multiple Access Protocols: ALOHA – CSMA – CSMA/CD

UNIT – III

Network Layer: Circuit switching - packet switching - message switching - Virtual circuit and Datagram subnets - Routing algorithm : Static routing -shortest path routing, Flooding, Flow based routing - Dynamic routing - distance vector routing, link state routing - Hierarchical routing, Broad cast, Multicast routing.

UNIT – IV

Transport Layer: Process to process delivery – UDP – TCP - Connection oriented Vs connectionless services. Applications and services: Remote Logon – Mail Exchange - File Transfer - Remote Procedure Call - Remote File Access – Traditional applications -Electronic Mail (SMTP, POP3, IMAP, MIME) – HTTP – Web Services – DNS – SNMP

UNIT – V

Network Security – Cryptography – Encryption model – Transposition and Substitution Ciphers– Symmetric key cryptography: DES – AES – Asymmetric key cryptography: RSA

Text Books:

1. Computer Networks: A Systems Approach, 5th Edition Larry L.Peterson, Bruce S.Davie, Morgan Kaufmann Publishers, 2011.
2. Computer Networks, 3rd Edition, Andrew S Tanenbaum, Pearson Education, 2010.
3. Data Communications and Networking,4th Edition,Behrouz A.Forouzan, TMH, 2009.

Books for Reference:

1. An Engineering Approach to Computer Networks, 2nd Edition, S.Keshav, Pearson Education, 2008.
2. Data&Computer Communications,8th Edition,William Stallings,Prentice Hall,2006.

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I YEAR – I SEMESTER
COURSE CODE: 7BCOA1

ALLIED COURSE - I – SECRETARIAL PRACTICE – I

Unit –i

Company secretary: definition – secretarial work – types of secretaries –routine secretary, executive secretary – appointment – dismissal – rights – duties and responsibilities.

Unit – ii

Company secretary and company formation: promotion of joint stock companies with special reference to duties and liabilities of secretary – licensing –industries (development and regulation) act – controller of capital issues.

Unit – iii

Registration – preparation and filing of relevant documents – memorandum, articles etc. – incorporation – certificate of commencement – prospectus – allotment of shares – forfeiture – re-issue of share certificates and share warrants.

Unit – iv

Law and procedure of meeting : secretarial duties – kinds of meeting – conduct – procedure of discussion – chairman – rules for debates – voting – proxy – (a detailed study with reference to the companies act, 1956 needed).

Unit – v

Meeting – secretarial work – drafting notices – agenda – motion – resolution, minutes-minutes books – drafting of statutory report – director's report and chairman's speech.

Books for reference:

1. Company law and secretarial practice , n.d.kapoor, sulthan chand and sons.new delhi.
2. Company law and secretarial practice, acharya and govekar, himalaya publishing house, mumbai.
3. Company law, ashok k. Bagrial, vikas publishing house pvt.ltd., new delhi.
4. Secretarial practice: ssm. Sundaram and m.muthupandi.
5. Secretarial practice: d.p.jain knark publication.

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II YEAR - IV SEMESTER
COURSE CODE: 7BBAA4

ALLIED COURSE - IV - CUSTOMER RELATIONSHIP MANAGEMENT

Unit i

Introduction: overview of relationship marketing – crm and relationship marketing – definition of crm – elements and history of crm – consumer attitudes – formation and change; consumer values and lifestyles – customer life cycle – using customer touch points – deciding who should lead the crm functions.

Unit ii

Strategy and organization of crm: crm processes and systems – dynamics of customer supplier relationships – crm strategy – the relationship oriented organization – customer knowledge – relationship policy – importance of customer divisibility in crm.

Unit iii

Analytical crm: relationship data management – prospect database – data analysis, data warehouse and data mining – segmentation and selection – analysis of customer relationship technologies – reporting results – setting evaluation criteria for the appropriate crm package

Unit iv

Crm subsystems: contact management, campaign management, sales force automation value chain – concept – integration business process management – benchmarks and metrics – culture change – customer ecosystem – vendor selection – implementation strategy.

Unit v

Operational crm: crm planning – infrastructure, information process, technology, people – managing quality information, quality systems, customer privacy – call centre management, internet and website, direct mail – applications in various industries – in manufacturing, banking hospitality and telecom sectors – best practices in marketing technology – indian scenario.

Books for reference:

1. Customer relationship management – peelen, ed. Pearson
2. The crm handbook – d. Jill pearson
3. Crm, a strategic imperative in the world of ebusiness – brown, stanley
4. Crm (emerging concepts, tools & applications) – sheth, jagdish n.
5. Marketing research – harper boyd & ralph westfall
6. Consumer behaviour – schifman

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II YEAR – III SEMESTER
COURSE CODE: 7BCC3C1

CORE COURSE - V – TALLY

Unit - i

Introduction – role of computer in accounting – extended enterprise features – accounting and inventory control features – sales and purchase order processing. To start tally – menus and options – accounting with tally – pre defined groups of accounts – golden rules of accounts – double entry systems – ledger creation.

Unit - ii

Gateway of tally – accounts information – primary groups of capital nature – revenue nature– to create groups using single mode – multiple mode – types of budget – type of vouchers – restart numbering – foreign exchange transactions – gate way of tally – inventory information – single stock group creation – multiple stock group creation – create stock category using single mode – multiple mode – configuration settings for inventory – costing method – fifo – lifo – create stock items in multiple mode – trading business.

Unit - iii

Gateway of tally – voucher entry – type of voucher – inventory allocations – purchase and sales order vouchers entry – invoice entry – optional and regular vouchers – gate way of tally – balance sheet – profit and loss account.

Unit - iv

Gate way of tally – display – trial balance – accounting books and statements – inventory reports and statements – cash flow / funds flow statement – gate way of tally – multi accounting printing – types of printing configuration options.

Unit - v

Reconciliation of bank accounts and other miscellaneous option – stock summary ratio analysis – import and export of data – backup and restore of data – loading a company – creating a group company – reconciliation of bank accounts – security control – uses and passwords – types of security – case study for manufacturing accounts (minimum three problems) – case study of trading business (minimum three problems) – online help – tally odbc – connectively – e-mail – ascii – html – xml – internet publishing – upload – ftp – webpage – url – exchange and merge date.

Text book:

Tally software package – manual.

HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – IV SEMESTER
COURSE CODE: 7BCC4C1

CORE COURSE - IX – E-COMMERCE AND INTERNET

Unit - i

Introduction to e-commerce – application of e-commerce – e-commerce and media convergence – market forces influencing i-way – components of i-way – network access equipment – global information distribution networks.

Unit – ii

Architectural framework of electronic commerce – world wide web (www) as the architecture – web background – hypertext publishing – technology behind the web – security and the web type of electronic payment system (eps) – digital token based eps – smart cards and eps credit card based eps – risk and eps – designing eps.

Unit – iii

Electronic data interchange – edi applications in business – edi legal, security and privacy issues – edi and e-commerce– internal information systems – macro – forces and internal commerce – supply chain management (scm) – dimension of internal electronic commerce systems – making a business case for a document library – types of digital documents – corporate data warehouses.

Unit – iv

Introduction to internet – history and resources of internet – hardware and software requirement of internet –internet architecture – internetworking protocol - internet service providers (isp)– connecting to internet - internet connection dial-up access, leased line, isdn, dsl, cable modem – internet addressing.

Unit – v

Internet services : e-mail – www – ftp – telnet – news – internet relay chat -introduction to web – urls schemes, host names and port numbers – web browser – search engines - web pages protocol – adding website to favorites – customizing options.

Text books:

1. Frontiers of electronic commerce – by kalkjala
2. The complete internet – markerat lenine young millennium

Books for reference:

1. Frontiers of electronic commerce - ravi kalakota, andrew winston
2. E-commerce- a managerial perspective - p.t.joseph
3. Designing systems for internet commerce- g.winfield treese & lawrence c.stewart

4. Computer fundamentals – anita goel, pearson education india, 2010.

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER
COURSE CODE: 7BCC5C2

CORE COURSE - XIV – INCOME TAX – LAW AND PRACTICE – I

Unit - i

Historical background of indian income tax – income tax act.1961

Unit - ii

Definitions: agricultural income – previous year – assessee – assessment year – person – principal officer – residential status – deemed income – capital and revenue – tax liability.

Unit - iii

Income exempt from tax – depreciation

Unit - iv

Salary – income from house property

Unit - v

Profits and gains from business or profession – capital gains – income from other sources

Text book:

Income tax law and accounts : mehrotra and goyal, sahitya bhawan publication

Books for reference:

1. Income tax : vinod k.sighania taxman
2. Income tax : bhagwati prasad and vishnu prakashan
3. Income tax : b.b.lal
4. Income tax : girish and ravi gupta

HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER
COURSE CODE: 7BCCE1B

ELECTIVE COURSE - I (B) – WEB TECHNOLOGIES

UNIT - I

www fundamental: getting connected – who is on the web – history of the web – understanding url's – history of the internet – services available on the internet – accessing the internet – what is multimedia – hypertext – cdroms and www – on line communications and the web.

UNIT - II

getting connected to the web: web access – internet service providers – rco/ip and windows learning about slip and ppp – bandwidth – dedicated connection modems and the web – about the web browsers – netscape navigator.

UNIT - III

working the e-mail: accessing internet mail – electronic main and on – line services – fining funds in cyberspace – using mailing list – accessing other parts of the internet.

UNIT - IV

web server hardware and software: about setting up a web server – hardware requirements– dedicated phone lines – web server software – working with windows – httpd – getting up and running with httpd – managing.

UNIT - V

LEARNING HTML: ABOUT HOME PAGES – ABOUT HYPERTEXT MARKUP LANGUAGE – using html – structural formatting – paragraph formatting – list – specification formatting – formatting hyperlinks – html and multimedia.

text books:

1. paul.j.perry, "world wide web secrets, comdex computer publishing 1996.
2. rajkamal "internet and web technologies" tata mcgraw hill publishing company ltd., new delhi, 2002.

BOOKS FOR REFERENCE:

1. douglas e.corner, the internet, iii edition, pearson education asia, 2001.
2. daniel minoili, emma minoli, "web commerce technology handbook" tat mcgraw hill publishing co., ltd.,

3. daniel minoili “internet & internet engineering technologies, protocols and application” tate mcgraw hill publishing co. ltd., 1999.

exercise:

1. using internet utilities, telnet, ftp, e-mail
2. html programs using tags
   A. simple web page
   B. hyper linked web page <a>
   C. web page with image <img src=’’’’>
   D. web page with applet <applet>
   E. web page with table<tb>
3. java program
   A. program to created a simple applet and applications
   B. using java classes and objects
   C. using inheritance and interface
   D. using arrays in java
   E. using exceptions
   F. using threads (synchronization, communication, critical section)
   G. program using awt package: windows, controls and message layout managers
   H. using package.net
   I. using i/o package.io (files and streams)

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER
COURSE CODE: 7BCCE2B

ELECTIVE COURSE - II (B) – COSTING

Unit I

Definition of Costing – Importance – Uses of costing – Objectives - advantages – Differences between Cost and Financial accounts – Installation of costing system – Analysis and classification of costs – Preparation of cost sheet.

Unit II

Materials: Purchase procedures – Requisition for materials – Issue of materials: First In First Out, Last In First Out – Simple Average – Weighted Average – Recording and controlling of materials – Maintenance of stores: minimum level, maximum level, reorder level, Economic Ordering quantity – Perpetual inventory – Control over wastage, scrap and spoilage.

Unit III

Methods of remunerating labour: Incentive schemes – Idle time – Control over idle time – Job evaluation – Merit rating – Time study – Labour turnover – Meaning and measurement.

Unit IV

Accounting overheads – Fixed and variable overheads – Basis of charging overheads – Allocation – Apportionment and Absorption – Distinction between works overhead, administration overhead, selling overhead and distribution overhead – Distribution of service overheads

Unit V

Job costing – Process costing – Normal loss, abnormal loss and abnormal gains – Effectiveness – Equivalent – Production (excluding By – products and joint products).

Books for Reference:

1.Cost accounting : SP.Jain and KL. Narang , Kalyani Publishers.
2.Cost accounting : Das Gupta, Sultan Chand &Sons
3.Cost accounting : R.S.N.Pillai and Bhagvathi, S.Chand &Co.,
4.Cost accounting : S.P. Iyengar, Sultan Chand &Sons
5.Cost accounting : T.S.Reddy, Margham Publications.
6.COST ACCOUNTING : V.S.P.RAO, VRINDA PUBLICATIONS
7.A TEXT BOOK OF COST AND MANAGEMENT ACCOUNTS : M.N.ARORA, VIKAS PUBLICATIONS.

NOTE:THE QUESTION PAPER SHALL CONTAIN 60% PROBLEMS AND 40% THEORY

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER
COURSE CODE: 7BCCE3B

ELECTIVE COURSE - III (B) – INDUSTRIAL LAW

Unit – i the factories act, 1948 (sec.16 to 84)

Preliminary – inspecting staff – health, safety and welfare of workers – working hours of adults – employment of young person – leave with wages.

Unit – ii trade unions act, 1926

Definition – registration of trade unions – rights and liabilities of trade unions – fund for political purpose – general funds – amalgamation of trade unions – immunity from civil and criminal liability – books and returns – penalties – dissolution, minimum wages act 1948 – interpretation – minimum wages – procedure for fixing wages – committee and adversary boards – wages in kind – payment of minimum wages.

Unit – iii the industrial disputes act, 1947

Definition of authorities – procedure and power of authorities – reference to arbitration – strikes and lock outs-lay off and retrenchments

Unit – iv the workmen's compensation act, 1923

Nature and scope – definitions – workmen's compensation – employer's liability – meaning of accident – compensation – permanent, partial and temporary disablement – compensation of half monthly payment (table not necessary)

Unit – v the employee's provident fund act, 1952

Preliminaries – provident fund scheme – provisions regarding contribution to the fund; the employee's state insurance act, 1948. Nature and scope – contribution – benefits – disputes and claims.

Text book:

Mercantile law – n.d.kapoor

Books for reference:

1. Mercantile law – m.c.shukla.
2. Hand book of mercantile law – e.venkatesan
3. Labour legislations in india – r.n.bose.

HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – I SEMESTER
COURSE CODE: 7MCC1C1

CORE COURSE I – MANAGEMENT PRACTICE

unit i:

management: definition – meaning – characteristics – functions – importance – differences between management and administration – qualities of a manager – management as art, science and profession – contributions of f.w. taylor, henri fayol, peter f. drucker, herbert a. simonand elton mayo.

unit ii:

planning: meaning, premises, types, objectives, characteristics, advantages and limitations – steps in planning process – difficulties in planning – decision making: nature and process- types: certainty, risk, uncertainty and others - use of computers in planning and decision processes – case study.

unit iii:

organisation: meaning – functions of organization – principles of organisation –organisation structures: types and significance – features and significance of formal and informal organisations – delegation of authority: need, requisites and evaluation – centralisation and decentralisation of decision making – relative merits and demerits – case study.

unit iv:

directing: principles and functions of direction – communication – morale and motivation – leadership styles – distinguishing qualities of a leader and manager – coordinating: need and methods – controlling: concept and techniques of control – performance appraisal: importance, types and methods – use of computers in control processes – case study.

unit v:

strategic management: meaning – importance – approaches to dealing with risk – models – strategic changes – strategic leadership and decision making–strategic alliance – core competence – total quality management -mergers and acquisition – managerial challenges in global organizations – use of computers in strategic management process – case study.

books for reference:

author(s)	title
ricky w griffin	management, south-western college publications, 2013
gareth jones and jenifer george	contemporary management, mcgraw-hill/irwin, 2010.
peter f. drucker	management, 2008.
stephen p. robbins and mary coulter	management, 9th edition, 2006.
kaplan and norton	the strategy-focused hbp, 2000
stoner, et-al	management, prentice hall, 1989.
weihrich and koontz	management a global perspective, mcgraw hill, 1988
gene burton and manab thakur	management today- principles and practice, tmh, 2009.
neeruvasisshth and vibhutivasishth	principles of management text & casespaperback, 2014, taxmann.
t. ramasamy	principles of management, himalaya publishing house

HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – I SEMESTER
COURSE CODE: 7MCC1C3

CORE COURSE III – MARKETING MANAGEMENT

unit i:

Meaning and functions of marketing –concepts of marketing: product, selling, consumer, relations and social concepts – approaches to the study of marketing – features of industrial, consumer and services marketing –international marketing: market entry strategies – approaches to international marketing: ethno-centric, poly-centric, regio- centric and geo-centric approaches – service marketing vs product marketing – rural marketing – emerging trends in marketing: sensory, viral and online marketing.

unit ii:

Meaning and importance of consumer behaviour in marketing – determinants of consumer buying process – theories of consumer behaviour–marketing research: meaning – objectives – procedure – marketing environment: external and internal factors – marketing segmentation: meaning, bases and benefits – marketing mix – the 'ps' in marketing mix – customer relationship management (crm).

unit iii:

Product mix management: product planning and development – meaning and process – test marketing – product failures – product life cycles – meaning and stages – strategies – managing plc – product-market integration: strategies – product positioning – diversification – product line simplification – planned obsolescence – branding policies and strategies – packing & packaging.

unit iv:

Price and place mix management: pricing and pricing policies – objectives – procedures – bases for and methods of price fixing – cases for free pricing, administered and regulated pricing – pricing and product life cycle – place mix decisions: channel decisions: types and factors influencing decisions – middlemen: types and functions – modern trends in retailing – malls and online – logistics decision considerations – supply chain management (scm) – marketing networking.

unit v:

Promotional mix management: personal selling vs impersonal selling – personal selling or salesmanship: selling process and strategies – salesman qualities – advertising: importance and objectives – media planning and selection – factors influencing selection – advertisement copy layout – evaluation of advertising – advertising budget – sales promotion: methods and practices – publicity: nature and significance.

books for reference:

author(s)	title	publisher
philip kotler and armstrong	marketing management	pearson
v.s. ramasamy and s.namakumari	marketing management	mcmillan
r.s.davar	modern marketing management	progressive publications
dr.c.b.gupta and dr.n.rajan nair	marketing management	sultan chand & sons,
s.a.sherlekar	marketing management	hph, bombay
keegan j warren	global marketing management	prentice hall

rakeshkhurana& a.n. ravichandra.	strategic marketing management - concepts & cases	global business press
nag	marketing successfully - a professional perspective,	mcmillan
saxena, r.	marketing management	tata mcgraw hill

HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – II SEMESTER
COURSE CODE: 7MCC2C2

CORE COURSE VI – FINANCIAL MANAGEMENT

Unit i:

financial management: meaning – nature and scope – objectives – financial decisions – functions of financial manager – sources of finance – short-term and long-term finance – time value of money– present value and future value concepts and their compound techniques.

Unit ii:

cost of capital: meaning, concepts and significance – types of cost of capital: cost of debt, preference shares, equity and retained earnings – global financing: gdrs/adrs-weighted average cost of capital.capital structure: meaning – significance – theories of capital structure – net income approach – net operating income approach – mm hypothesis – traditional approach – determinants of capital structure.

Unit iii:

Capital budgeting: meaning – significance – methods of ranking investment proposals – payback period, net present value, internal rate of return and accounting rate of return – capital rationing – leverage: meaning – types of leverage – financial, operating and combined leverage – ebit – eps.

Unit iv:

Working capital management:meaning – objectives – factors affecting working capital requirement – sources of working capital – techniques of cash management: eoq and miller-orr-cash budget- receivables management: liberal and stringent credit policy variables- inventory management : eoq and inventory levels.

Unit v:

Dividend theories and practice: concept of dividend – dividend relevance and irrelevance to valuation – walter's, gordon and mm's models – dividend policies and their significance– forms of dividends – factors determining dividend policy – dividend practices.

Note: question paper shall cover 60% theory and 40% problems.

Books for reference:

Author(s)	Title	Publisher
I.m.pandey	Financial management	Vikas publishing
Khan and jain	Financial management	Tata mcgraw-hill
S.n.maheswari	Financial management	Vikas publishing house
James van horne	Fundamentals of financial management	Prentice hall
Kishore	Financial management	Taxmann
Khan	Financial services	Tata mcgraw-hill
Guthmann and dougall	Corporate financial policy	Prentice hall
Prasanna chandra	Financial management	Tata mcgraw-hill education
Eugene f. Brigham	Financial management: theory & practice	South western- cengage

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HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – III SEMESTER
COURSE CODE: 7MCC3C2

CORE COURSE X – INNOVATION AND ENTREPRENEURSHIP

Unit I:

Innovation: Concepts – Need – Importance – Sources –Creativity–Ideational fluency – Thinking types relevant for innovation – Research and Development – Invention – Entrepreneurship: Meaning, Importance, Types of Entrepreneurship – Micro, Small, Medium Entrepreneurship: Concept and Special significance in India – Concept of intrapreneurship – Entrepreneurial qualities – Risk and Innovation – Traits of successful entrepreneurs – Entrepreneur vis-à-vis Businessman vis-à-vis Manager – Innovation as the essence of entrepreneurship – Core competency of Entrepreneurs.

Unit II:

Innovation and Entrepreneurial Environment:Internal and external environment forces conditioning entrepreneurship – Psychological, Social, Cultural, Political, Legal and Economic Forces – Entrepreneurship Development Phases: Attitude, Capability, Culture and Society – Entrepreneurship Development Programs – Family Business Groups and Entrepreneurship in India – Conditions for Innovation – Learning Organization as the need for Innovation – Innovation and Entrepreneurship based Education, Training and Development Initiatives.

Unit III:

Role and Functions of Institutional Agencies in Entrepreneurship Development: National Institute of Entrepreneurship and Small Business Development (NIESBUD) – Entrepreneurship Development Institute of India (EDII) – National Institute for Micro, Small and Medium Enterprises (NIMSME) – Small Industries Development Organization –Role of TIIC – SIPCOT – SIDCO – ITCOT – TIDCO DIC – National Entrepreneurship Network (NEN)- Ministry of Skill Development & Entrepreneurship- MUDRA Bank Schemes.

UNIT IV:

Select government schemes for entrepreneurship: trade related entrepreneurship assistance and development (tread), micro & small enterprises cluster development program – (mse – cdp), credit guarantee fund scheme for micro and small enterprises - department of science and technology: support for entrepreneurial and managerial development and societal programs- special schemes: differential rate of interest (dri) scheme – khadi and village industries commission (kvic) schemes – tamilnaduadidravidar housing and development corporation (thadco) schemes – tamilnadu backward classes & minorities economic development corporation limited (tabcedco) scheme- role of confederation of indian industry.

Unit V:

Formulating and Launching Entrepreneurial ventures:Developing Business propositions – Preparing Project Proposal and Report – Identifying Suppliers, Financiers, Business Process Partners – Knowledge of Competition and strategy for dealing with competition – Business Establishment: Clearances and Documents – Planning for Contingencies.

Books for Reference:

AUTHOR(S)	TITLE	PUBLISHER
PETER F.DRUCKER	INNOVATION AND ENTREPRENEURSHIP	HARPERBUSINESS
PETER THIEL	ZERO TO ONE	CROWN BUSINESS
GUPTA AND SRINIVASAN	ENTREPRENEURSHIP DEVELOPMENT	SULTANCHAND& SONS
TOM KELLEY	THE ART OF INNOVATION: LESSONS IN CREATIVITY FROM IDEO, AMERICA'S LEADING DESIGN FIRM	CROWN BUSINESS
B.C.TANDON	ENVIRONMENT & ENTREPRENEURSHIP	CHUGH PUBLICATIONS
SRIVASTAVA	A PRACTICAL GUIDE TO INDUSTRIAL ENTREPRENEURS	SULTAN CHAND AND.
SARAVANAVEL	ENTREPRENEURSHIP DEVELOPMENT	ESS PEE KAY PUBLISHERS, MADRAS.
SCOTT BERKUN	THE MYTHS OF INNOVATION	
VASANT DESAI	THE DYNAMICS OF ENTREPRENEURIAL DEVELOPMENT AND MANAGEMENT	HIMALAYA PUBLISHING HOUSE
KHANKA S. S.	ENTREPRENEURIAL DEVELOPMENT	S.CHAND AND COMPANY

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HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – III SEMESTER
COURSE CODE: 7MCC3E2

ELECTIVE COURSE III (B) – SOFTWARE MODELS AND ENGINEERING

unit i:

phases in software development – requirement analysis – software design – coding – testing – maintenance – effort distribution with phases – error distribution – software development process model: waterfall model – prototyping interactive enhancement – spiral model – role of management in software development, metrics and measurements – software requirements specifications (srs) – role of srs.

unit ii:

problem analysis:structuring information–data flow diagram and data dictionary – structured analysis – prototyping requirements specification characteristics of an srs – specification languages structure of requirements document – validation: reading – construction scenarios – requirement review automated cross referencing – prototyping – metrics: function points – number of errors found – change request frequency.

unit iii:

planning a software project – cost estimation – uncertainties in cost estimation – single variable models: cocomo – software size estimation – project scheduling: average duration estimation – milestones, staffing and personnel planning – raleigh curve – team structure – software configuration management configuration identification – configuration control – status accounting and auditing – software configuration and management – quality assurance plans: verification and validation – inspection and reviews – output of a software development project – project monitoring plans: timesheets – reviews – cost – schedule – milestone graph – risk management: risk management activities – risk identification – risk analysis and prioritization – project planning and risk management.

unit iv:

system design: design objectives, design partitioning – problem partitioning – abstraction, top-down and bottom-up strategies, module level concepts – coupling and cohesion, design methodology – structured design – structure charts – design methodology – transaction analysis, design specification, verification – design reviews – automated cross-checking.

unit v:

testing fundamentals: error fault – failures – reliability – levels of testing – test case and test criteria – test oracle – psychology of testing – top-down and bottom-up approaches– functional testing: equivalence class portioning – boundary value analysis: case effect graphing – test case generations – instrumentation for structural testing – complexity based criteria – mutation testing – combination functional and structural approaches, testing process – test plan – test case specification and test case – execution and analysis, comparison of different v & v techniques, matrices, reliability assessment – programmer productivity – error removal efficiency – specifications for system testing – system test report – error report on a given problem.

BOOKS FOR REFERENCE:

AUTHOR(S)	TITLE	PUBLISHER
PANKEJJALOTE	AN INTEGRATED APPROACH TO SOFTWARE ENGINEERING,2005	SPRINGER SCIENCE & BUSINESS MEDIA
RICHARD E. FAIRLEY	SOFTWARE ENGINEERING – A PRACTITIONER'S APPROACH,1997	SPRINGER
MARTIN L SHOOMAN	SOFTWARE ENGINEERING – DESIGN, RELIABILITY AND MANAGEMENT	MCGRAW-HILL RYERSON
BEATTY AND WEIGERS	SOFTWARE REQUIREMENTS ,2013	MICROSOFT.
P. CLEMENT, L. BASS & R. KAZMAN	SOFTWARE ARCHITECTURE IN PRACTICE (3RD EDITION) (SEI SERIES IN SOFTWARE ENGINEERING,2012	ADDISON-WESLEY PROFESSIONAL

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HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – IV SEMESTER
COURSE CODE: 7MCC4C2

CORE COURSE XIV – HUMAN RESOURCE MANAGEMENT

Unit i:

human resource management (hrm): meaning, nature, objectives, scope and functions – hrm department: structure and functions – managerial and operating functions – hrm as a profession-growing significance and challenges of hrm.

Unit ii:

Hr planning: concept and scope – requirements for manpower planning – job analysis – job description – job specification – job design – job simplification – job enlargement – job rotation – job enrichment – absenteeism: causes and consequences – relevant case study.

Unit iii:

recruitment and selection: policy – sources of recruitment – process and problems – recruitment practices in india – selection: concept and process – placement and induction – bases for promotions and transfers – need for demotions and separations- labour turnover: causes and consequences- employee retention: need and methods – relevant case study.

Unit iv:

training and development – need and importance – steps in training programs – evaluation of training programs – concept of management development programs – techniques of training and development – group discussions – conferences and seminars – case studies – role playing – business games – sensitivity training – stages of career development – personnel training: importance, types and methods – executive development: importance, types and methods – relevant case study.

Unit v:

Wages and salary administration – compensation plans – cafeteria approach- job evaluation – individual and group incentives – bonus – fringe benefits – performance appraisal – meaning, need and importance – objectives, methods and modern techniques of performance appraisal – requisites of a good appraisal plan – problems in performance appraisal – relevant case study.

Books for reference:

Author(s)	Title	Publisher
K. Aswathappa	Human resource management	Tata mcgraw-hill
Edwin b. Flippo	Personnel management	Mcgraw-hill
P.c. tripathy	Personnel management	Sultan chand & sons
K. Rakesh chopra	Managing human resources	V. K. Publishing.
V.s.p. rao	Human resource management	Excel books
Dr.v. Balu	Human resource development	Venkateswara publications.
Steve brown, alan price, et al.	Human resource management	Routledge

GENDER, ENVIRONMENT & SUSTAINABILITY, HUMAN VALUES & PROFESSIONAL ETHICSENVIRONMENT AND SUSTAINABILITY

III YEAR – VI SEMESTER
COURSE CODE: 7BBCE2A

ELECTIVE COURSE - II (A) – BIOTECHNOLOGY

unit i vectors

plasmids and cosmids, types of vectors – bacterial, viral, yeast and plant vectors, yeast artificial chromosomes and bacterial artificial chromosomes, agrobacterium plasmids. expression and integration vectors, enzymes involved in cloning.

unit ii recombinant dna technology

cloning strategies, cdna synthesis and genomic library, restriction enzymes and digestion, gene mapping, restriction fragment length polymorphism, sscp, polymerase chain reaction, sequencing methods, marker genes, site directed mutagenesis, tag sequences (his tag)

unit iii gene transfer technology

types of gene transfer methods – electroporation, microinjection, biolistic method, transformation using peg & calcium, viral transfection, protoplast fusion, ti plasmid mediated gene-transformation

unit iv analytical techniques

qualitative and quantitative analysis of dna, rna and protein, spectroscopy and spectrophotometric analysis, electrophoretric assay and blotting techniques, dna finger printing and rapd

unit v applications of genetically modified organisms

production of transgenic plants, animals and microorganisms, blood products, food products, merits and demerits of gmos.

text books:

1. biotechnology by u.sathyanarayana, allied book publications, 2nd edition (2006) (forunit 1, 2 &3)
2. animal biotechnology by v.kumaresan, saras publications, (2009) (for unit 4 & 5)

books for reference:

1. molecular biotechnology, bernard r. glick and jack j. pasternack. ii edition asm press.
2. recombinant dna by waston et al., (1992) scientific american books.
3. principles of gene manipulation by r.n. old and s.b. primrose (1994) blackwell scientific publications.
4. concepts in biotechnology, eds d. balasubramanian et al., (1996) university press.
5. internet search should be made for journals for the latest information.
6. biotechnology by r.c.dubey, s.chand publications (2009)
7. biotechnology by s.s.purohit, saraswati publishers (2005)

GENDER, ENVIRONMENT & SUSTAINABILITY,HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER

COURSE CODE: 7BBC6C1

CORE COURSE - XIV – NUTRITION BIOCHEMISTRY

unit i introduction to food science

definition of foods and nutrition. functions of food and its relation to nutritional and clinical health, basic food groups: energy giving foods, body building foods and protective foods. essential nutrients, rda for average indian, analysis of food composition, food habits, food fads and fallacies.

unit ii energy

definition and unit of energy – kcal, rq, sda. basal metabolism, measurement of bmr, factors affecting bmr, regulation of body temperature, energy needs, total energy requirements, estimation of energy requirements and energy value of foods.

unit iii mineral and vitamin nutrition

essential micro and macro nutrients, distribution, sources, functions and abnormatlities.

vitamins: definition, classification, sources, distribution, metabolism, function, abnormalities, minimum requirements and optimum allowances, assay of vitamins, deficiency and excess.

unit iv balanced diet formulation

assessment of nutritional status. nutrition at various stages of growth and development: diets for infants. children, adolescent, pregnant women, lactating mothers and older persons. nutritional therapy during stress, anemia, obesity, diabetes mellitus and allergy protein nutritional nitrogen balance, quality of food proteins and requirements, protein nutrition abnormatlities, protein deficiency disorder, pem

unit v nutritional disorders

nutritional challenges of the future: food production and food storage, future foods, new protein foods, new fat foods and changing food habits.

text books:

1. nutrition and dietetics by shubhagini, tata mc graw publishers, 3rd edition, (2010) (forunit 1,2 &3)
2. human nutrition by b.srilakshmi, new age publishers, 2nd edition (2008) (for unit 4&5)

books for reference:

1. principles of nutrition determination dietetics – dr. m.s. swaminathan
2. advances text book on food and nutrition – dr. m. swaminathan vol. i & ii
3. normal and therapeutic nutrition – corine robinson
4. human nutrition and dietetics – garon and james
5. food science by b.srilakshmi, new age publishers, 5th edition (2010).

GENDER, ENVIRONMENT & SUSTAINABILITY,HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER

COURSE CODE: 7BBC6C2

CORE COURSE - XV – PLANT BIOCHEMISTRY

unit i plant cell physiology

structure and biochemical aspects of plant cell membrane, primary and secondary cell walls, cell plate, plasmodesmata, vacuoles, meristematic cells. water balance and transport in plants, osmosis and diffusion, water potential, measuring of water potential, osmotic potential,membrane potential, diffusion pressure deficit, solute transport, mass flow, transpiration.

unit ii plant nutrition

essential mineral nutrients – absorption, translocation and function, effects of toxicity and deficiency, n_2 cycle, nitrogen fixation – symbiotic and a symbiotic nitrogen fixation – nitrogenase, nitrate assimilation, sulphur metabolism sulphate as a mineral nutrient, sulpahte assimilation

unit iii photosynthesis

structure & function of chloroplast system. photosynthetic pigments and their functions, photo system i & ii. photosynthetic electron transport and photophosphorylation . calvin cycle (c3 plants), hatch slack pathway (c4 plants).

unit iv plant growth regulators

normal growth hormones – auxins, ga, cytokinins, ethylene and abcisic acid synthetic growth hormones.

unit v plant physiology and reproduction

physiology and reproduction: brief account on physiology of germination / dormancy / photoperiodism / vernalization.
plant tissue culture (an elementary treatment)
biochemistry of disease resistance in plants.

text books:

1. plant physiology by m.devlin,john wiley publications,3rd edition (1996) (for unit1)
2. plant physiology by s.n .pandey, vikas publishing house, 4th edition (2008) (for unit 2)

books for reference:

1. plant biochemistry – devlin and witham
2. plant biochemistry – ross and salisburry
3. plant biochemistry – (3^{rd} edn) – bonner and varner

4. plant physiology – hopkins
5. biochemistry (4^{th} edn) – geoffrey zubay

GENDER, ENVIRONMENT & SUSTAINABILITY,HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – III SEMESTER

COURSE CODE: 7MBC3E3

ELECTIVE COURSE-V (A)–HORMONES AND CELL SIGNALING

Unit i

Hormones classifications – based on structure: peptides, glycoproteins, steroids, amines, iodothyronines, autocoids. Based on actions: hormones acting on cell surface receptors and intracellular receptor – types of receptors.

Unit ii

Hormones signaling – g-protein coupled receptors. G-protein receptor super family. Structure, function relationship of g-protein coupled receptor, mutations in g protein genes.

Unit iii

Hormones signaling through cytokine receptors, cytokine receptor family – receptor serine kinase, receptor tyrosine kinase. Intracellular signaling pathways – cyclic amp, phospholipids, calcium.

Unit iv

Steroid – thyroid super family of receptors – cytosolic and nuclear receptors. Hormone response element. Interaction with target gene – regulation of transcription.

Unit v

Clinical importance of hormone signaling – hormone resistance syndrome (type ii diabetes). Receptor gene mutations – activating/inactivating mutations. Mutations in signaling molecules – g protein. Hormone receptors in the promotion of cancers.

Books for reference:

1. Norman aw and litwack g(1977). Hormones,ii edition, academic press,new york.
2. Conn pm and means ar (2000). Principles of molecular regulation, humana press, new jersey.
3. Murray rk, granner dic, mayes pa and rodwell vw (2000), harpers biochemistry, mc grew-hill, new york.
4. De groot i.j. Jameson jl (2001). Endocrinology, w.b. Saunders company, philadelphia vol. I.
5. Larsen pr, kronenberg hm, melmed s and polonsky s (2002). Text book of endocrinology, w.b. Saunders company, philadelphia.
6. Lewin b (2004). Genes viii, oxford university press.
7. Principles of animal physiology - christopher moyes-patricia schulte, 2008.

GENDER,ENVIRONMENT &SUSTAINABILITY

II YEAR – III SEMESTER
COURSE CODE: 7MBC3C2

CORE COURSE-XI–MEDICAL BIOCHEMISTRY

Unit i: basics of clinical chemistry

Definition and scope of clinical biochemistry in diagnosis, a brief review of units used in expressing clinical values and standard solutions. Quality control. Manual vs automation in clinical laboratory.

Clinical enzymology – definition of functional and non-functional plasma enzymes. Isozymes and diagnostic tests. Enzyme pattern in health and disease with special mention of plasma lipase, amylase, cholinesterase, alp, acp, sgot, sgpt, ldh and cpk.

Unit ii: disorders of amino acid, protein and nucleic acid metabolism

Disorders of amino acid metabolism pertaining to tyrosine, phenyl alanine, tryptophan and cysteine-fanconi syndrome. Disorders of protein metabolism – protein deficiency, plasma proteins, significance and variation in diseases – seromycoproteins, γ-globulinemia, multiple myeloma, proteinuria. Disorders of nucleic acid metabolism: gout – primary and secondary.

Unit iii: disorders of carbohydrate and lipid metabolism

Blood sugar in normal blood, renal threshold, hyper and hypo glycemia, and glycosuria – modified glucose tolerance test – laboratory diagnosis of early and lateral diabetics, diabetic coma, and secondary degenerative changes associated with diabetes mellitus, glycogen storage diseases. Galactosemia, fructosuria, pentosuria, lactose intolerance, hypoglycemia agents.

Disorders in lipid metabolism: lipid metabolism in liver and adipose tissue, plasma lipoproteins and hypolipoproteinemia, hyper cholesterolemia and experimental production in animals, lipidemia associated with ketosis, nephritic syndrome, thyroid disease and liver disease – fatty liver, atherosclerosis and obesity.

Unit iv: kidney and urine

Diabetes insipidus and renal functions in the infant, kidneys and relation to blood pressure, routine qualitative analyses of urine and urinary sediments – renal functions tests – free water clearances, renal function in acute and chronic glomerularnephritis, acute and chronic renal failure. Laboratory tests for peritoneal and haemodialysis, renal calculi, analysis of stress, biochemical findings in recurrence of stones abnormal constituents of urine of diagnostic significance (blood, bilirubin, ketones bodies, bile salts, porphyrin, uric acid and protein)

Unit v: clinical tests

Clinical tests in blood (hba1c test, e.s.r. screening for sickle cell anemia, immunologic test, prothrombin time), body fluids (c-reactive protein test, rheumatoid arthritis (ra), immunologic test for pregnancy); amniotic fluid (origin, composition, analysis of amniotic fluid); cerebro spinal fluid (meningitis, convulsive stages, cerebral haemorrhage and thrombosis)

Liver diseases: liver function test, laboratory findings in jaundice and types of jaundice, crigler-najjar syndrome, cirrhosis, hepatic coma.hematology:

Books for reference:

1. Practical clinical biochemistry – herald varley, 1954
2. Hawk's physiological chemistry, 1966
3. Practical clinical biochemistry methods and interpretations – chawla, 2003
4. Clinical chemistry – lawrence a. Kaplan, 2004
5. Biotechnology, b.d. singh, kalyani publications, 2008
6. Medical biochemistry - a. Aroor, 2011
7. The big picture: medical biochemistry - lee janson, marc tischle, 2012
8. Text book of clinical biochemistry – burtis, 2012
9. Clinical biochemistry – tietz, 2015
10. Biochemistry – devlin, 2016
11. Biochemistry – chatterjee, 2016
12. Text book of medical lab technology – praful b. Godkar, 2016

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GENDER, ENVIRONMENT & SUSTAINABILITY

II YEAR – IV SEMESTER
COURSE CODE: 7BBC4C1

CORE COURSE - VIII – HUMAN PHYSIOLOGY

Unit i blood and body fluids

extra cellular fluid – plasma, interstitial fluid and trancellular fluid: lymph and blood composition, functions, osmolarity of the body fluids, ionic composition, electrolytes and body buffers. Blood cells, hemoglobin, haemopoisis, and coagulation and blood groups.

Unit ii digestive system

Structure of digestive system. Composition, function and regulation of saliva, gastric, pancreatic, intestinal and bile secretions – digestion and absorption of carbohydrates, lipids, proteins, nucleic acids, minerals and vitamins.

Unit iii excretory system

Structure of nephron, formation of urine, glomerular filtration, tubular reabsorption of glucose, water and electrolyte balance – role of kidney and hormones in their maintenance.

Unit iv endocrine system

A brief outline of various endocrine glands and their physiological roles; biosynthesis, storage and secretion of both peptide and steroid hormones. Amino acids as hormones. Feed back regulation of hormone secretion, hormone receptors and their activation, mechanisms of intracellular and extra cellular hormone action.

Unit v respiratory system

Anatomy and physiology of respiration, exchange of gases between lung and blood and between blood and tissues. Role of lung and kidney in acid base balance. Acidosis and alkalosis.

Text books:

1. Human physiology by chatterjee, medical allied publications,3rd edition, 2004(for unit 1 &2)
2. Animal physiology by n.arumugam,saras publications,2nd edition,2008(for unit 3, 4 & 5)

Books for reference:

1. Human physiology: vol. I & ii – c.c. chatterjee
2. Functions of the human body – guyton, a.c.,
3. The living body – best c.h. & taylor n.b.
4. Human physiology – systemic & applied – sahalya
5. Human physiology – stuart erafox
6. Human physiology – rhoades
7. Handbook of physiology – jefferson
8. human physiology by guyton, saunders publishing ltd, 9th edition (2004).
9. Physiology and biochemistry by r.a .agarwal, s.chand company publishers, 3rd edition (1986)

ENVIRONMENT AND SUSTAINABILITY

I YEAR – I SEMESTER
COURSE CODE: 7BBC1C2

CORE COURSE - II - CELL BIOLOGY

Unit i structure and molecules of cells

Characteristic features of prokaryote and eukaryotes, structure of eukaryotic cells, structure of plasma membrane - phospho lipid bilayer and fluid mosaic model; functions of plasma membrane- transport of small molecules - passive diffusion, facilitated diffusion and carrier proteins. Ion channels; active transport driven by atp and ion gradients. Membrane lipids and membrane proteins; composition of the cell- carbohydrate, lipid, nucleic acids and proteins. Cytoplasmic matrix and chemical composition of cytosol.

Unit ii structure and functions of cell organelles

Morphology; ultrastructure and functions of endoplasmic reticulum (er), golgi apparatus, cytoskeleton, vesicle, rhibosome, lysosome, microbodies, peroxisomes and glyoxysomes, centrioles, cilia, flagella, mitochondria, nucleus and nucleolus.

Unit iii nucleic acids and organization

internal organization of nucleus, chromosomes- ultrastructure, composition and karyotyping single stranded and multi stranded hypotheses, folded-fibre model and nucleosome concept, nucleosome and solenoid model of chromatin, solenoid models, functions ; giant chromosomes – polytene chromosomes, lampbrush chromosomes. Dna replication, central dogma- transcription and translation.

Unit iv metabolism, cell division and growth

cell metabolism-catalytic activity of enzymes, metabolic energy, functions of adenosine triphosphate (atp); oxidation of carbohydrates – glycolysis, oxidative decarboxylation, krebs cycle, respiratory chain and oxidative phosphorylation.

Cell cycle and mitosis - general events of interphase, prophase, metaphase, anaphase, telophase, meiosis- kinds of meiosis, process of meiosis, heterotypic division or first meiotic division, homotypic or second meiotic division significance of mitosis; meiosis.

Unit v cancer

the biology of cancer, types, causes; properties of cancer cells; genetics of cancer- role and identification of tumor suppressor genes and oncogenes. Functions of tumor suppressor gene and oncogenes products; apoptosis and cancer.

Books for reference:

1. The cell: a molecular approach, fourth edition (2007) by geoffrey m. Cooper and robert e. Hausman.
2. Cell and molecular biology: concepts and experiments, 6th edition (2010) by gerald karp.
3. Molecular biology of the cell, fourth edition (2002) by bruce alberts et al.,
4. Cell biology, genetics, molecular biology, evolution and ecology (2005) by p.s. verma and v.k. agarwal.

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ENVIRONMENT AND SUSTAINABILITY

II YEAR – III SEMESTER

COURSE CODE: 7MBC3C3

CORE COURSE-XII–MOLECULAR BIOLOGY

Unit i: molecular biology basics

Molecular definition of gene – gene family and protein family, pseudogenes, satellite dna, mobile dna – bacterial insertion sequences, mechanism of transposition. Structure and organization of eukaryotic chromosomes – chromatin and chromatin condensation; eukaryotic dna transposons – mobile elements in drosophila, genome organization in prokaryotes, regulation of gene expression chloroplast and mitochondrial genes

Unit ii: central dogma of molecular biology

Dna as the genetic material, structure and types, replication – mechanism of dna replication in prokaryotic and eukaryotic systems, enzymes involved replication origin and replication fork, fidelity of replication, extra-chromosomal replicons, inhibitors of dna replication. Structure and function of different types of rna. Transcription – transcription factors and machinery, formation of initiation complex, transcription activator and repressor, rna polymerases, elongation and termination, rna processing (capping, polyadenylation, rna editing, and splicing), rna transport and transcription inhibitors. Genetic code, translation – prokaryotic and eukaryotic translation machinery, aminoacylation of trna, initiation factors, formation of initiation complex, elongation and elongation factors, termination, translational proof-reading, translational inhibitors. Post-translational modification of proteins

Unit iii: mutants

Genetic nomenclature – types of mutants, isolation and characterization of mutants and revertants. Genetic analysis of mutants, genetic recombination (homologous, non-homologous and site specific recombination), genetic mapping, linkage and multifactor crosses, deletion mapping, complementation and intragenic complementation; the need for isogenic strains for genetic analysis.

Unit iv: genetic transfer and transposons

Methods of genetic transfers – transformation, conjugation – *(hfr*, triparental mating, self transmissible and mobilizable plasmids), transduction (general and specialized), mapping genes by interrupted mating. Introduction to transposable elements – discovery and types, nomenclature – insertion sequences – mechanism.

Unit v: developmental genetics

Genetics of pattern formation in drosophila – egg polarity genes, segmentation genes, homeotic genes, development control and sex determination in drosophila. Homeotics genes in various organism, *caenorhabditis elegans* – development and genetic control on fate determination. Population genetics – gene pool, gene frequency, genetic drift – hardy weinberg's law AND APPLICATION.

Books for reference:

1. Genetics – analysis of genes & genome (2000) (5th ed) by hartl dl and jones ew.
2. Essentials of molecular biology, fourth edition (2002) by g. M. Malacinski, jones & bartlett publishers.
3. Molecular biology of the gene, fifth edition (2004) by james d watson, tania a. Baker, stephen p. Bell, alexander gann, michael levine and richard losick, benjamin cummings.
4. Microbial genetics (2006) by s.r. Maloy, j. E. Cronan jr., and d. Freifelder, jones and bartlett publishers, sudbury, massachusetts.
5. Genetics – a molecular approach, 2nd edition (2006) by peter j. Russel.
6. Gene ix benjamin lewin, jones & bartlett learning (2007).
7. Genomes 3 (2007) by t. A. Brown, garland science publishing.
8. Human molecular genetics 2 by tom strachan and andrew read, 2010.
9. Molecular biology: academic cell update - david clark, 2010.
10. Molecular biology - robert weaver, 2012.
11. Molecular biology - s. Flint, 2015.

ENVIRONMENT AND SUSTAINABILITY

II YEAR – III SEMESTER
COURSE CODE: 7MBC3E1

ELECTIVE COURSE-IV (A)–BIOPHARMACEUTICALS

Unit i: drug discovery and development

Need for developing new drugs, sources of drugs, procedure followed in drug design, role of molecular recognition in drug design, enzymes and receptors as drug targets, prodrug design and applications, computer aided drug design. Molecular modification of lead compounds. Physiochemical parameters in drug design, qsar. Preclinical and clinical trials.

Unit ii: drug metabolism

Routes of administration, adsorption, enhancement, solubility factors, bioavailability, site specific delivery. Phases of drug metabolism (phase i, ii and iii). Effect of pathological factors (liver, kidney and heart diseases) in drug metabolism. Brief outline on cytochrome p450 polymorphism and drug metabolism.

Unit iii: pharmacodynamics

Introduction, concept of drug receptors interactions. Theories of drug activity relationship, treatment of diseases by enzyme stimulation and enzyme inhibition, elementary treatment of drug receptor interaction, ld50, ed50, mic and mec. Membrane active drugs (sulphonamides), xenobiotics and significance of drug metabolism in medicinal chemistry.

Unit iv: pharmaceutical products

Substances derived from bacteria, plants, insects, and animals microbial products – antibiotics (penicillin, streptomycin, tetracyclin), vitamins, probiotics, plant secondary metabolite control mechanism and manipulation of phenylpropanoid pathway, shikimate pathway. Tissue culture production of alkaloids, flavonoids, steroids, terpenoids.

Unit v: pharmaceutical products of dna technology

Therapeutic proteins – insulin, human growth hormone, clotting factors, interferon, interleukins, tissue plasminogen activators, erythropoietin, alginate lyase, muteins, production, advantages, limitations and applications of monoclonal antibodies. Gene delivery systems.

Books for reference:

1. Lachman l lieberman, kanig j, theory and practice of industrial pharmacy, 3rd edition, vargheese publishing and co, new delhi, 1986.
2. Heinrich klefenz, industrial pharmaceutical biotechnology, wiley publication, germany 2002.
3. Daan crommelin, robert d sindelar, pharmaceutical biotechnology, tailor and francis publications, new york, 2002.

4. Jay rho, stan g louie, hand book of pharmaceutical biotechnology, pharmaceutical products press, new york, 2003.
5. Biopharmaceuticals: an industrial perspective - gary walsh-brendan murphy, 2011
6. Biotechnology: in context - brenda lerner-k. Lerner, 2012.
7. Analytical ultracentrifugation: instrumentation, software, and applications - walter stafford-susumu uchiyama-fumio arisaka, 2016.

ENVIRONMENT AND SUSTAINABILITY

III YEAR – V SEMESTER
COURSE CODE: 7BCHE2A

ELECTIVE COURSE II (A) – INDUSTRIAL CHEMISTRY

Unit i

1.1.paints: paint – definition – classification of paints based on their applications – constituents – requisites of a good paint

1.2.pigments: definition – composition, characteristics and uses of white lead, zinc oxide lithopone and tio2 – blue pigments – ultra marine blue – characteristics – uses. Red pigments – red lead –characteristics and uses. Green pigments – chrome green, guigwet's green and chromium oxide – characteristics and their uses.

1.3.varnishes: definition – constituents of varnish – characteristics of a good varnish – uses – japans varnish. Enamel – definition – types – ingredients and uses.

Unit ii

2.1.ceramics: definition, classification of ceramics, general properties of ceramics – permeable (porous) and impermeable (non porous wares) – basic raw material – manufacture – applications of colour to pottery.

2.2.glass:definition – physical and chemical properties of glass – raw materials – manufacture – types of glasses.

2.3.cement: raw materials – portland cement – composition – types of portland cement – manufacture – uses of cement – cement raw materials in india – growth of cement industry in india. Chemistry of setting of cements.

Unit iii

3.1.soap: definition – general consideration in soap making – manufacture of soap – toilet and transparent soaps.

3.2.detergents: definition – classification of face active agents – anionic detergents – cationic detergents – shampoo – raw materials

3.3.refractories:- introduction, classification – properties – manufacture – fire clay bricks – manufacture – uses

Unit iv

4.1.fertilizers: definition – manufacture of ammonium sulphate, can. Manufacture of urea and estimation of urea. Manufacture of phosphoric acid. Manufacture of superphosphates and uses of phosphate as fertilizer. Mixed fertilizers (npk) – fertilizer industries in india.

4.2.sugar industry: manufacture of sugar from molasses and beetroot – sugar industries in india. Fermentation: manufacture of spirits and wines. Distillation: manufacture of vinegar and ethyl alcohol.

4.3.match industries: manufacture – chemistry of lighting and pyrotechny

Unit v

5.1.adhesives: definition – classification of adhesives – animal glue – preparation – uses– protein adhesives – starch adhesives – preparation – uses.

5.2.enamels: introduction – raw materials – manufacture and applications

5.3.explosives: definition – classification – characteristics of explosives – nitro cellulose, t.n.t. picric acid, gun powder, cordite and dynamite.

Books for reference:

1. B.k. sharma – “industrial chemistry”, 1st ed., (1983), goel publication, meerut.
2. B.n. charabarthy – “industrial chemistry”, 1st ed., oxford and ibh publishing. New delhi.
3. P.l. soni – “text book of organic chemistry”, 26th ed., (1994), s. Chand & co, new delhi.
4. Arun bahl and b.s. bahl – “text book of organic chemistry”, 11th and 18th ed., (2006), s.chand, new delhi.
5. Krishnamoorthy, p. Vallinayagan & k. Jaya subramanian – “applied chemistry”, 2nd ed., (1999, 2001), tata magraw-hill publishing co. Ltd., new delhi

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR - V SEMESTER
COURSE CODE: 7BCHE1A

ELECTIVE COURSE - I (A) – ANALYTICAL CHEMISTRY

Unit i analytical data analysis and laboratory hygiene:

1.1.need of statistical analysis: definition for accuracy precision and error. Sources of errors and classification of errors – systematic (determinate) errors and random (indeterminate) errors. Distribution of errors. Methods of minimisation of errors.

1.2.data analysis: mean standard deviation and coefficient of variance. Significant figure.

1.3.reliability of results: q – test. Student – t – test and f-test – confidence limit and rejection of experimental data. Curve fitting – methods of least squares – problems involving straight line graphs.

1.4. Laboratory hygiene and safety: storage and handling of chemicals – carcinogenic, corrosive, explosive, toxic and poisonous chemicals – general precautions for avoiding accidents – first aid techniques for acid in eye, alkali in eye, acid burns, alkali burns, bromine burns, poisoning, inhalation of gases, cut by glasses and heat burns – methods to avoid poisoning – treatment for specific poisons.

Unit ii separation purification and chromatographic and electrophoretic methods:

2.1. Separation and purification techniques:solvent extraction – soxhelt extraction – principles and applications of distillation, fractional distillation, steam distillation – crystallization and sublimation.

2.2. Basic principle of chromatography. Various types of chromatographic technique. Column chromatography, thinlayer chromatography, paper chromatography, gas chromatography, ion exchange chromatography and hplc.

2.3. Basic principles of electrophoresis. Isoelectric point. Electrophoretic mobility. Electrophoretic separation of proteins.

Unit iii colorimetry and spectrophotometry:

1.1.theory of colorimetry and spectrophotometry: beer – lambert's law and its limitations. Standard series method and balancing methods.

1.2.reagents, solutions and experimental procedure for the estimation of iron, lead nickel and tin.

1.3basic principles of spectrofluorimetry. Reagents, solutions and experimental procedure for the estimation of aluminium, cadmium, calcium and zinc.

Unit iv gravimetry:

4.1. Basic principle, advantages of gravimetric analysis. Solubility product. Super saturation. Co-precipitation and post precipitation. Digestion. Precipitation from homogeneous solutions. Precipitants . Specific and selective precipitant. Sequestering agents.

4.2.thermogravimetric analysis – principle – instrumentation – characteristics of thermogravimetric curve – applications of tga for calcium oxalate monohydrate. Differential thermal analysis – principle – instrumentation – characteristics of differential thermal curve – applications of dta for calcium oxalate monohydrate.

Unit v electro-analytical techniques:

5.1. Electro- gravimetry: theory of electro-gravimetry. Faraday's laws. Ohm's law. Electrical units – ampere, volt, ohm and coulomb. Polarised and depolarised electrodes. Current density, current efficiency, decomposition potential and overpotential. Electrolytic separation of copper from nickel and copper from lead. Estimation of antimony, copper, lead and tin in alloys.

5.2. Voltammetry: principles of voltammetry. Experimental setup for polorographic analysis. Types of polorographic methods. Determination of lead in tap water.

5.3. Electrochemical analytical techniques: basic principles of voltametric analytical techniques. Potentiometric titrations and conductometric titrations. Irreversible electrode processes and overvoltage. Applications of overvoltage. Polorography and its applications.

Books for reference:

1. R.gopalan, p.s.subramanian and k.rengarajan, elements of analytical chemistry, sultan chand & sons, new delhi, 1995.
2. Douglas a.skoog and d.m.west, principles of instrumental analysis, w.b.saunders, new york, 1982.
3. Gurdeep chatwal, sham anand, instrumental methods of chemical analysis, himalaya publishing house, mumbai, 1998.
4. Vogel's quantitative chemical analysis – 5th edition.

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER
COURSE CODE: 7BCE5C2

CORE COURSE-X–RELATIONAL DATABASE MANGEMENT SYSTEMS

Unit i

Introduction: database system applications – purpose of database systems – view of data– database languages – relational databases – database design – object based and semi structured databases – data storage and querying – database users and administrators– transaction management – database users and architectures – history of database system.

Entity-relationship model: e-r model – constraints – e-r diagrams – e-r design issues – weak entity sets – extended e-r features.

Unit ii

Relational database design: features of good relational designs – atomic domains and first normal form – decomposition using functional dependencies – functional dependency theory – decomposition using functional – decomposition using multivalued dependencies – more normal forms – database design process – modeling temporal data

Unit iii

Database system architecture: centralized and client-server architecture – server system architecture – parallel systems – distributed systems – network types. Parallel databases: i/o parallelism – interquery parallelism – intraquery parallelism. Distributed databases: homogeneous and heterogeneous databases – distributed data storage – distributed transactions – distributed query processing.

Unit iv

Schema objects data integrity – creating and maintaining tables – indexes – sequences – views – users privileges and roles –synonyms.

Unit v

Pl/sql: pl/sql – triggers – stored procedures and functions – package – cursors – transaction

Text books:

1. Database system concepts – silberschatzkorthsudarshan, international (5th edition) mcgraw hill higher education 2006
2. Jose a.ramalho – learn oracle 8i bpb publications 2003

Books for reference:

1. “oracle 9i the complete reference“, kevin loney and george koch, tata mcgraw hill, 2004.
2. “database management systems”, ramakrishnan and gehrke, mc graw hill, third edition, 2003.
3. “oracle 9i pl/sql programming “scott urman, oracle press, tata mc graw hill, 2002.

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER
COURSE CODE: 7BCEE1B

ELECTIVE COURSE-I (B)–WEB DESIGN

Unit i

Introduction to html: markup languages – editing html – common tags – header – text styling – linking – images – formatting text – special characters, horizontal rules and line breaks – unordered list – nested and ordered list – tables and formatting – forms – linking – frames.

Unit ii

Cascading style sheets:
Introduction – inline styles – embedded style sheets – conflicting style – linking external style sheets – positioning elements – backgrounds – element dimension – box model and text flow – media types – building a dropdown menu

Unit iii

Java script: introduction – control structures – if structure – while structure – assignment operators – increment and decrement operators – for structure – switch structure – do/while structure – break and continue statement – logical operators

Unit iv

Java script functions: programmer defined functions – function definitions – duration of identifiers – scope rules – recursion – recursion vs iteration – global functions

Java script arrays: arrays – declaring and allocating arrays – references and reference parameters – passing arrays to functions – sorting arrays – searching arrays – multiple-subscripted arrays

Java script objects: math object – string object – date object – boolean and number object – document object – window object.

Unit v

Document object model (dom): modeling a document – traversing and modifying a dom tree – dom collections and dynamic styles.
Events: registering event handlers – onload - onmousemove, the event object and this – on mouseover and on mouseout – onfocus and onblur – form processing with onsubmit and onreset – event bubbling and other events.

Xml: basics – structuring data – xml name spaces – document type defination s – w3c xml schema documents – xml vocabularies – xslt

Text book:

1. “internet and world wide web – how to program”, h.m.deitel, p.j.deital, t.r.nieto, pearson education asia – addison wesley longman pte ltd.

Book for reference:

1. “special edition using html”, mark r brown and jerry honeycutt, third edition

HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER
COURSE CODE: 7BCE6C1

CORE COURSE-XII–COMPUTER NETWORKS

Unit i

Uses of computer networks:– network hardware –network software – osi and tcp/ip reference models – example networks :internet.

Unit ii:

The physical layer: guided transmission media – wireless transmission– communication satellites – public switched telephone network – the mobile telephone system

Unit iii

Data link layer: design issues – error detection and correction – elementary data link protocols – sliding window protocol - medium access control layer: channel allocation problem – multiple access protocol – ethernet.

Unit iv

Network layer: design issues – routing algorithms.
Transport layer: transport services – elements of transport protocols.

Unit v

Application layer: dns– electronic mail – world wide web architectural overview.
Network security: cryptography – symmetric key algorithms – public key algorithms

Text book:

1. Computer networks, andrew s tanenbaum and d. J. Wetherall, 5th ed, pearson, 2011.

Books for reference:

1. Uylessd.black, computer networks, phie.
2. Data and computer communications, phi, w.stallings
3. Data communications and computer networks, brijendra singh ,second edition, phi, 2006.
4. Data communications and computer networks , prakash c. Gupta, prentice hall of india, 2005.
5. Data communications and networks ,achyut s godbole, tmh,2005.

HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER
COURSE CODE: 7BCE6C2

CORE COURSE-XIII–COMPUTER GRAPHICS

Unit I

Geometry and Line Generation: Introduction – Line – Line Segments – Perpendicular Line – Distance between a point and a Line – Vector – Pixels and Frame Buffers – Vector Generation – Bresenham's Algorithm – Antialiasing of Lines – Thick lines Segments – Character Generation – Display the Frame Buffer – Programming Problems.

Unit II

Graphics Primitivies: Introduction – Display Devices – The Display-File Interpreter – Display-File Structure – Display Control – Text – The Line-Style Primitive – Programming Problems.

Polygons: Introduction – Polygons – Polygon Representation – Entering Polygons – An Inside test – Polygon Interfacing Algorithms – Filling Polygons – Filling with Pattern – Initialization – Programming Problems.

Unit III

Transformations: Introduction – Matrices – Scaling Transformations – Sin and Cos – Rotation– Homogeneous Coordinates and Translation – Coordinate Transformations – Rotation about an Arbitary Point – Other Transformations – Inverse Transformations – Display Procedures – Programming Problems.

Segments: Introducton – Segment Table – Creation – Closing – Deleting – Renaming Segment – Visibility – Saving and Showing – Other Display-File Structure – Some Raster Techniques – Programming Problems.

Unit IV

Windowing and Clipping: Introduction – The Viewing Transformation – Implementation – Clipping – The Cohen-Sutherland – Sutherland-Hodgman Algorithm – Clipping Polygons – Adding Clipping Generalized Clipping – Arbitrary Line – Multiple Windowing Programming Problems.

Unit V

Interaction: Introduction – Hardware – Input Device – Event Handling – Sampled Devices – Attribute – Simulating a Locator – Echoing – Interactive Techniques – Programming Problems.

Text Book:

1. Computer Graphics (A Programming Approach) Second Edition by Steven Harrington. McGRAW-HILL INTERNATION EDITIONS

Book for Reference:

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

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER
COURSE CODE: 7BCE6C3

CORE COURSE-XIV–SOFTWARE ENGINEERING

Unit i

Introduction: introduction to software engineering – some definitions – some size factors – quality and productivity factors – managerial issuesplanning a software project: defining the problem– developing a solution strategy – planning the development process – planning an organizational structure – other planning activities

Unit ii

Software cost estimation: software cost factors – software cost estimation techniques – estimating software maintenance costs

Software requirements definition: the software requirements specification – formal specification techniques

Unit iii

Software design: fundamental design concepts – modules and modularization criteria – design notations – design techniques – stepwise refinement – integrated top down development – jackson structured programming -detailed design considerations –test plan – milestones,walkthroughs and inspections – design guidelines

Unit iv

Software implementation: structured coding techniques – coding style – standards and guidelines - verification and validation techniques – quality assurance – walkthrough and inspection -unit testing and debugging – system testing

Unit v

Software maintenance: enhancing maintainability during development – managerial aspects of software engineering – configuration management – source code metrics – other maintenance tools and techniques

Text book:

1. Software engineering concepts – richard e. Fairley, tata mcgraw hill publishing company ltd, new delhi

Books for reference:

1. Software engineering – a practitioner's approach – roger s. Pressman, (fourth edition) mcgrawhill international editions
2. An integrated approach to software engineering – pankaj jalote, second edition narosa publishing house
3. Fundamentals of software engineering, carloghezzi, mehdi jazayeri, dino mandrioli, prentice hall of india pvt. Ltd.,new delhi

HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – II SEMESTER
COURSE CODE: 7MCI2C1

CORE COURSE - VI – DATABASE TECHNOLOGY

Unit i

introduction to dbms: purpose of database system – database system terminologies – database characteristics – data models – types of data models – components of dbms.

logical database design: relational algebra – relational calculus – entity relationship model – extended er logical 1nf to 5nf – domain key normal form – denormalization.

Unit ii

introduction to sql: sql as standard – data types – database objects – ddl – dml – tcl

query optimization: query processing and optimization – heuristics and cost estimates in query optimization.

Unit iii

transaction processing: introduction – properties of transaction – serializability – concurrency control – locking mechanisms – two phase commit protocol – deadlock.

Unit iv

introduction to distributed databases: distributed databases – multidimensional and parallel databases – spatial and multimedia databases – mobile and web databases.

Unit v

data warehousing and data marts: data in data warehouse – types of data marts – data mining

database security: security threats – defense mechanisms – security specification sql – statistical database security.

Text books:

1. Ramakrishnan r and gehrke j, “database management systems” mcgraw hill third edition new delhi 2003.
2. Ramez elmasri and shamkant b navathe, “fundamentals of databse systems” pearson education india, second reprint new delhi 2004.

Books for reference:

1. Abraham silberschatz, henry k forth, sudarshan s, “ database system concepts” tata mcgrawhill fourth edition newdelhi 1998
2. Atul kahate, “introduction to database management systems” pearson education, new delhi 2004.
3. Alexis leon, mathews leon “database management systems” vikas publishing house private limited, new delhi 2003.

HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – III SEMESTER
COURSE CODE: 7BCA3C1

CORE COURSE - V – DATABASE MANGEMENT SYSTEMS

Unit i

Introduction: database system applications – purpose of database systems – view of data– database languages – relational databases – database design – object based and semi structured databases – data storage and querying – database users and administrators– transaction management – database users and architectures – history of database system.

Entity-relationship model: e-r model – constraints – e-r diagrams – e-r design issues – weak entity sets – extended e-r features.

Unit ii

Relational database design: features of good relational designs – atomic domains and first normal form – decomposition using functional dependencies – functional dependency theory – decomposition using functional – decomposition using multivalued dependencies – more normal forms – database design process – modeling temporal data.

Unit iii

Database system architecture: centralized and client-server architecture – server system architecture – parallel systems – distributed systems – network types.
Parallel databases: i/o parallelism – interquery parallelism – intraquery parallelism.
Distributed databases: homogeneous and heterogeneous databases – distributed data storage – distributed transactions – distributed query processing.

Unit iv

Schema objects: data integrity – creating and maintaining tables – indexes – sequences – views – users privileges and roles – synonyms.

Unit v

Pl/sql: pl/sql – triggers – stored procedures and functions – package – cursors –transaction

Text books:

1. Database system concepts – silberschatz korth sudarshan, international (6^{th} edition) mcgraw hill higher education, 2011.
2. Jose a.ramalho – learn oracle 8i bpb publications 2007

Books for reference:

1. “oracle 9i the complete reference“, kevin loney and george koch, tata mcgraw hill, 2004.
2. “database management systems”, ramakrishnan and gehrke, mcgraw hill, third edition, 2003.
3. “oracle 9i pl/sql programming “scott urman, oracle press, tata mcgraw hill, 2002.

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER
COURSE CODE: 7BCAE1A

ELECTIVE COURSE - I (A) – WEB DESIGN TECHNOLOGY

Unit I

Introduction to HTML: Markup Languages-editing HTML- Common Tags – Header - Text Styling-Linking-Images-Formatting Text-Special Characters, horizontal rules and line breaks-Unordered List – Nested and Ordered List – Tables and Formatting – Forms – Linking - Frames.

Unit II

Java script: Introduction to Scripting: Introduction – Memory Concepts – Arithmetic – Decision Making – Java Script Internet & www resources. Java script Arrays: Passing arrays to Functions – Multi Subscripted Array.

Unit III

Java Script Control Structures – Selection Structure: If – If Else, Repetition Structure: While – For – Do While – Logical operators.
Java Script Functions: Introduction – Program Modules in Java Script Programmer Defined Functions.

Unit IV

Function Definition: Duration of identifiers – scope rules – recursion – java script global functions Java Script Objects: Introduction – Thinking about objects – Math, Strings, Date, Boolean and Number Objects.

Unit V

VB Script: Introduction- Operators – Data Type and Control Structures – VB Script Functions – Array – String Manipulation – Classes and Objects – Operator Precedence Chart- The MsgBox functions – input boxes – controlling the flow of code -Simple Program .

Text book:

1. Web technology – a developer's perspective, n.p. gopalan, j. Akilandeswari, prentice hall india learning private limited, new delhi, 2007.

Books for reference:

1. Internet and world wide web - how to program h.m.deitel, p.j.deital, t.r.neito, pearson education asia-addison wesley longman pvt ltd.
2. Web technologies - godbole a. S. & kahate a., tmh.

HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER

COURSE CODE: 7BCAE2A

ELECTIVE COURSE - II (A) – 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

Unit ii

Two dimensional transformations: transformation principles – basic transformations – matrix representation – composite transformations.

Unit iii

Two dimensional viewing and clipping: viewing transformations – windows and viewpoints – aspect ratio – clipping and shielding: point clipping – line segment clipping– convex polygon clipping – sitherland hodgman algorithm.

Unit iv

Three dimensional transformations: concepts – basic transformations: translation, scaling, rotation and mirror reflection – matrix representation – composite transformation.

Unit v

User interface design: components of user interface – the user's model – the command language – styles of command language – information display – feedback – examples.

Text books:

1. M. Newman and f.sproull, interactive computer graphics, mcgraw hill.
2. Plastok and gordon kalley, computer graphics, mcgraw hill.
3. Computer graphics donald hearn and m. Pauline bake , pearson education

Book for reference:

1. Foley feiner, computer graphics, principles and practice – addison wesley.

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER
COURSE CODE: 7BCA6C1

CORE COURSE - XII – DATA MINING AND WAREHOUSING

Unit – I

Introduction: Data mining application – data mining techniques – data mining case studies- the future of data mining – data mining software - Association rules mining: Introduction- basics- task and a naïve algorithm- apriori algorithm – improve the efficient of the apriori algorithm – mining frequent pattern without candidate generation (FP-growth) – performance evaluation of algorithms.

Unit – II

Classification : Introduction – decision tree – over fitting and pruning - DT rules-- naïve bayes method- estimation predictive accuracy of classification methods - other evaluation criteria for classification method – classification software

Unit – III

Cluster analysis: cluster analysis – types of data – computing distances-types of cluster analysis methods - partitioned methods – hierarchical methods – density based methods – dealing with large databases – quality and validity of cluster analysis methods - cluster analysis software.

Unit – IV

Web data mining: Introduction- web terminology and characteristics- locality and hierarchy in the web- web content mining-web usage mining- web structure mining – web mining software - Search engines: Search engines functionality- search engines architecture – ranking of web pages.

Unit – V

Data Warehousing: Introduction – Operational data sources- data warehousing - Data warehousing design – Guidelines for data warehousing implementation - Data warehousing metadata - Online analytical processing (OLAP): Introduction – OLAP characteristics of OLAP system – Multidimensional view and data cube - Data cube implementation - Data cube operations OLAP implementation guidelines

Text Book:

1. Introduction to Data mining with case studies, G.K. Gupta, 2nd Edition, PHI , 2011

Books for Reference:

1. Arun K.Pujari, Data Mining Techniques, Universities Press (India) Limited, 2011.
2. George M. Marakas, Modern Data warehousing, Mining and Visualization: Core Concepts, Printice Hall, First Edition, 2011

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HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER
COURSE CODE: 7BCA6C3

CORE COURSE - XIV – SOFTWARE ENGINEERING

Unit i

Introduction: introduction to software engineering – some definitions – some size factors – quality and productivity factors – managerial issues

Planning a software project: defining the problem – developing a solution strategy – planning the development process – planning an organizational structure – other planning activities

Unit ii

Software cost estimation: software cost factors – software cost estimation techniques-estimating software maintenance costs

software requirements definition: the software requirements specification – formal specification techniques

Unit iii

Software design: fundamental design concepts – modules and modularization criteria – design notations – design techniques – detailed design considerations – realtime and distributed system design – test plan – milestones, walkthroughs and inspections – design guidelines

Software implementation: structured coding techniques – coding style – standards and guidelines

Unit iv

Software testing: a strategic approach to software testing – strategic issues – unit testing – integration testing – validation testing – system testing – the art of debugging

Software maintenance: enhancing maintainability during development – managerial aspects of software engineering – configuration management – source code metrics – other maintenance tools and techniques

Unit v

Software quality assurance: quality concepts – software quality assurance – software reviews – formal technical reviews – statistical quality assurance – the sqa plan – the iso 9000 quality standards

Text book:

1. Software engineering concepts–richard e.fairley, tata mcgraw hill publishing company ltd,new delhi,2006(chapters:1, 2, 3.1, 3.2, 3.4, 4.1, 4.2, 5, 6.1, 6.2, 6.3,9)

Books for reference:

1. Software engineering – a practitioner's approach – roger s. Pressman, (fourth edition) mcgraw hill international editions (chapters: 8.1, 8.3, 8.4, 8.5, 8.7, 8.9, 8.10, 17)
2. An integrated approach to software engineering – pankaj jalote, second edition narosa publishing house
3. Fundamentals of software engineering, carlo ghezzi, mehdi jazayeri, dino mandrioli, prentice hall of india pvt. Ltd., new delhi

HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER
COURSE CODE: 7BCAE3B

ELECTIVE COURSE - III (B) – PC ASSEMBLING, TROUBLESHOOTING AND SYSTEM MANAGEMENT LAB

PC ASSEMBLING

1. Installing the motherboard.
2. Installing the CPU and heat sink.
3. Installing the RAM.
4. Installing the power supply.
5. Installing the hard disk and optical drive.
6. Connecting various cables (ATX power connector, cabinet cables for power, reset button, front USB/audio panel cable).
7. BIOS settings – setting time, changing boot sequence, system password setting
8. Changing CMOS battery
9. Connecting extra cabinet fan

PC TROUBLESHOOTING

1. Booting with CD/DVD, pen drive, LAN & hard disk with different OS
2. Formatting hard drive.
3. Installing the OS and drivers.
4. Troubleshooting BSOD (blue screen of death)
5. Installation of service packs, applications such as MS Office, Anti-virus software.
6. Creating restore point and backup a drive.
7. Using hard disk tools (sfc, disk checker, defragmenter, data recovery).
8. Windows update, registry fix, msconfig, gpedit.
9. Using repair tools like ccleaner, system mechanic, malware bytes.

SYSTEM MANAGEMENT

1. Familiarization with configuring and installing a LAN (Assign IP addresses)
2. Internet connection sharing over LAN
3. File transfer over LAN
4. Installing and using web browser and firewall
5. Using search engines like Google
6. CD/DVD burning – image burning – date/audio/video CD/DVD making with Nero
7. Playing audio and video with VLC media player – creating play list

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ENVIRONMENT AND SUSTAINABILITY

II YEAR – III SEMESTER
COURSE CODE: 7BITA3

ALLIED COURSE - III – DISCRETE MATHEMATICS

Unit - i

Logic: tf statements – connective – disjunction – negation – conditional statements – bi conditional statements – atomic and compound statements – well formed formulae – the truth table – tautology – tautological implication formulae with distinct truth tables.

Unit - ii

Normal forms: principles of normal forms – theory of inference – open statements – quantifiers – valid formulae and equivalence – theory of inference for predicate calculus.

Unit - iii

Graph theory: definition – degrees – sub graph – isomorphism – complete graph – bipartite graph – paths, cycles – connectedness.

Unit - iv

Trees: spanning tree – kruskal's algorithm – prim's algorithm – dijkstra's algorithm – cutset and cutvertices – eulerian-hamiltonian graph.

Unit - v

Lattice: binary relation in a set – partition and covering of a set – equivalence relations – partial ordering – posets – hasse diagram – lattices – sub lattices – properties of sub-lattices– special lattices – boolean algebra – boolean functions.

Text book

1. Discrete mathematics by m.k.venkataraman, n.sridharan and n.chandrasekaran, nation publishing co., chennai

Book for reference:

1. Discrete mathematics structures with applications to computer science by trembly and manohar – mc graw hill.

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II YEAR – IV SEMESTER
COURSE CODE: 7BITA4
ALLIED COURSE -IV– OPERATION RESEARCH

Unit - i

Development of or – definition of or – modeling – features of or – main phases of or – tools, techniques & methods – scope of or.

Unit - ii

Linear programming problem – formulation of lpp – slack & surplus variables – graphical solution of lpp – simplex method – artificial variable technique – big – m method – two phase method.

Unit - iii

Duality – dual simplex method – ipp – gomory's cutting plane method – branch and bound method.

Unit - iv

Mathematical formulation of assignment problem – method for solving the assignment problem – traveling salesman problem

Unit - v

Mathematical formulation of transportation problem – initial feasible solution – optimal solution – degeneracy in tp – unbalanced tp

Text book:

1. Operations research – theory & applications by s.d.sharma, kedar nath ram nath & co. Publishers.

Book for reference:

1. Linear programming by s.arumugam & a.thangapandi issac, new gamma publishing house, palayamkottai–2003.

ENVIRONMENT & SUSTAINABILITY

II YEAR - III SEMESTER
COURSE CODE: 7BMA3C2

CORE COURSE - VI – DIFFERENTIAL EQUATIONS AND ITS APPLICATIONS

Unit – i

exact differential equations – conditions for equation to be exact –working rule for solving it – problems – equations of the first order but of higher degree – equations solvable for p, x, y, clairaut's form – equations that do not contain (i) x explicitly (ii) y explicitly – equations homogenous in x and y–linear equation with constant coefficients.

Unit – ii

linear equations with variable coefficients – equations reducible to the linear equations – simultaneous differential equations – first order and first degree – simultaneous linear differential equations.

Unit – iii

linear equations of the second order – complete solution given a known integral – reduction to normal form – change of the independent variable – variation of parameters – total differential equations – necessary and sufficient condition of integrability of $pdx + qdy + rdz = 0$, rule for solving it.

Unit – iv

partial differential equations of the first oder – classifications of integrals – derivations of partial differential equations – special methods – standard forms – charpit's method.

Unit – v

flow of water from an orifice – falling bodies and other rate problems – brachistochrone problem – tautochronous property of the cycloid – trajectories.

TEXT BOOK:

1. Differential Equations and its Applications by S.Narayanan&T.K.ManickavachagomPillay, S.Viswanathan (Printers& Publishers) Pvt. Ltd., 2015.

UNIT I	CHAPTER 2 –SECTIONS 6.1 TO 6.3; CHAPTER 4; CHAPTER5 – SECTIONS 1, 2, 3, 4
UNIT II	CHAPTER 5–SECTIONS 5, 6; CHAPTER 6 – SECTIONS 1TO 6
UNIT III	CHAPTER 8–SECTIONS 1 TO 4; CHAPTER 11
UNIT IV	CHAPTER 12 – SECTIONS 1, 2, 3, 4, 5.1 TO 5.4 & SECTION 6

ENVIRONMENT & SUSTAINABILITY

II YEAR - IV SEMESTER

COURSE CODE: 7BMA4C1

CORE COURSE - VII – TRANSFORM TECHNIQUES

Unit – i

laplace transform – definition – laplace transform of standard functions – elementary theorems – laplace transform of periodic functions – problems.

Unit – ii

inverse laplace transforms – standard formulae – basic theorems – solving ordinary differential equations with constant coefficients, variable coefficients and simultaneous linear equations using laplace transform.

Unit – iii

fourier series – definition – to find the fourier coefficients of periodic functions of period 2 π - even and odd functions – half range series – problems.

Unit – iv

fourier transforms – complex form of fourier integral formula – fourier integral theorem – properties of fourier transform – fourier sine and cosine transforms – properties – parsivals identity - problems

Unit – v

z transforms – definition – proprieties – z transforms of some basic functions – problems – inverse z transforms – methods to find the inverse z transform – use of z – transforms to solve finite difference equations – problems.

TEXT BOOKS:

1. Calculus Volume III by S.Narayanan and T.K.ManicavachagomPillay, S.Viswanathan (Printers & Publishers) Pvt. Ltd., 2014.
2. Engineering Mathematics 3rd Edition by T.Veerarajan, Tata McGraw Hill Publishing Company Limited, New Delhi.

UNIT I	CHAPTER 5SECTIONS 1 TO 5 OF (1)
UNIT II	CHAPTER 5 SECTIONS 6 TO 10 OF (1)
UNIT III	CHAPTER 6 SECTIONS 1 TO 4, 5.1,5.2 OF (1)
UNIT IV	CHAPTER 6 SECTIONS 9.1 TO 9.3, 10, 11.1, 11.2, 12, 13, 14, 14.1, 15 OF (1)
UNIT V	CHAPTER 7 SECTIONS 7.1 TO 7.5 OF (2)

BOOK FOR REFERENCE:

1. Transforms and Partial Differential Equations by Dr.A.Singaravelu, Meenakshi Agency, Chennai

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ENVIRONMENT & SUSTAINABILITY

III YEAR - V SEMESTER

COURSE CODE: 7BMAE1A

ELECTIVE COURSE - I (A) – GRAPH THEORY

Unit – i

graphs – definition and examples – degrees – sub graphs – isomorphism – ramsey numbers – independent sets and coverings – intersection graphs and line graphs – matrices – operations on graphs.

Unit – ii

dergee sequences – graphic sequences – walks, trials and paths – connectedness and components – blocks – connectivey – eulerian graphs – hamiltonian graphs.

Unit – iii

trees – characterisation of trees – centre of a tree – matchings–matchings in bipartite graphs.

Unit – iv

planer graphs and properties – characterization of planer graphs – thickness, crossing and outer planarity – chromatic number and chromaticindex – the five colour theorem and four colour problem.

Unit – v

chromatic polynomials – definitions and basic properties of directed graph – paths and connections – digraphs and matrices – tournaments.

Text book:

1. Invitation to graph theory by dr. S.arumugam & s.ramachandran, scitech publications (india) pvt. Ltd,2001 .

Unit i	Chapter 2
Unit ii	Chapters 3, 4 & 5
Unit iii	Chapters 6 & 7
Unit iv	Chapter 8, chapter 9, sections 9.1 to 9.3
Unit v	Chapter 9 section 9.4; chapter 10

Book for reference:

1. Graph theory with applications to engineering and computer science bynarasinghdeo, prentice hall of india, new delhi.

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ENVIRONMENT & SUSTAINABILITY

I YEAR – I SEMESTER
COURSE CODE: 7MMA1C4

CORE COURSE-IV – ORDINARY DIFFERENTIAL EQUATIONS

UNIT I

Linear equations with constant coefficients – Linear dependence and Independence – a formula for the Wronskian – non-homogenous equation – homogeneous equation of order n-initial value problems for n^{th} order equations – equations with real constants – non-homogeneous equations of order n.

UNIT II

Linear equations with variable coefficients : Reduction of the order of a homogeneous equation – non-homogeneous equation-homogeneous equations with analytic coefficients – Legendre equation.

UNIT III

Linear equations with regular singular points – Euler equations – second order equations with regular singular points – an example – second order equations with regular singular points – general case – exceptional cases – Bessel equation – Bessel equation (continued) – regular points at infinity.

UNIT IV

Existence and uniqueness of solutions to first order equations : Equations with variables separated – exact equations – method of successive approximations – Lipchitz condition – convergence of the successive approximations.

UNIT V

Nonlocal existence of solutions-approximations to solutions and uniqueness of solutions – Existence and uniqueness of solutions to systems and n^{th} order equations – existence and uniqueness of solutions to system.

Text Book

Earl A.Coddington, An Introduction to Ordinary Differential Equations – Prentice Hall of India, 1987.

Unit – I	Chapter - 2 sections 2.4 to 2.10
Unit – II	Chapter - 3 sections 3.5 to 3.8
Unit – III	Chapter - 4 sections 4.1 to 4.4 and 4.6 to 4.9
Unit – IV	Chapter - 5 sections 5.2 to 5.6
Unit – V	Chapter 5 & 6 sections 5.7 to 5.8 and 6.6

Books for Supplementary Reading and Reference:

1. D.Somasundaram, Ordinary Differential Equations, Narosa Publishing House, Chennai, 2002.
2. M.D.Raisinghania, Advanced Differential Equations, S.Chand and Company Ltd, New Delhi, 2001.

ENVIRONMENT & SUSTAINABILITY

I YEAR –II SEMESTER

COURSE CODE: 7MMA2C3

CORE COURSE-VII – PARTIAL DIFFERENTIAL EQUATIONS

Unit I

Ordinary differential equations in more than two variables : Surfaces and curves in three dimensions-simultaneous differential equations of the first order and the first degree in three variables-methods of solution of dx/P=dy/Q=dz/R orthogonal trajectories of a system of curves on a surface-pfaffian differential forms and equations – solution of Pfaffian differential equations the three variables.

Unit II

Partial differential equations of the first order : Partial differential equations – origins of first order partial differential equations – Cauchy's problem for first order equations – linear equations of the first order-integral surfaces passing through a given curve-surfaces orthogonal to a given system of surfaces-nonlinear partial differential equations of the first order-Cauchy's method of characteristics.

Unit III

Compatible systems of first order equations – Charpits method-special types of first order equations – solutions satisfying given conditions – Jacobi's method.

Unit IV

Partial differential equations of the second order : Origin of second order equations – linear partial differential equations with constant coefficients. Equations with variable coefficients – separation of variables – method of integral transforms (exercise problems are excluded)

Unit V

Laplace's equation : Elementary solutions of Laplace's equation – boundary value problems – The Wave equation – Elementary solutions of the one dimensional wave equation – The Diffusion equation : Elementary solutions of the diffusion equation – separation of variables.

Text Book(s)

1. I.N.Sneddon,Elements of Partial Differential Equations,McGraw Hill Book Company, 1986.
   - Unit I : Chapter 1 : Sections 1.1 to 1.6
   - Unit II : Chapter 2 : Sections 2.1 to 2.8
   - Unit III: Chapter 2 : Sections 2.9 to 2.13
   - Unit IV: Chapter 3 : Sections 3.1, 3.4, 3.5, 3.9 and 3.10
   - Unit V : Chapter 4, 5 & 6 : Sections 4.2, 4.4, 5.2, 6.3 and 6.4

Books for Supplementary Reading and Reference:

1. M.D.Raisinghania, Advanced Differential Equations, S.Chand&Company Ltd.,New Delhi, 2001.

ENVIRONMENT & SUSTAINABILITY

III YEAR - VI SEMESTER
COURSE CODE: 7BMA6C3

CORE COURSE - XIV – STATISTICS - II

Unit – i

probability – conditional probability – random variables – discrete random variable – continuous random variable – mathematical expectations – moment generating function – characteristic function.

Unit – ii

some special distributions – binomial distribution – poisson distribution – normal distribution – gamma distribution – chi-square distribution – student's t-distribution – snedecor's f distribution – fischer's z – distribution.

Unit – iii

tests ofsignificance of large samples – sampling – sampling distribution – testing of hypothesis – procedure for testing of hypothesis for large samples – tests of significance for large samples.

Unit – iv

tests of significance based on 't' distribution – test of significance based on f-test – test for significance of an observed sample correlation.

Unit – v

test based on chi - square distribution – chi - square test forpopulation variance – chi - square test – to test the goodness of fit – test for independence of attributes – analysis of variance – one criterion of classification – two criteria of classification – three criteria of classification – latin square.

TEXT BOOK:

1. Statistics by Dr. S.Arumugam and Mr. A.Thangapandi Isaac, New Gamma Publishing House, Palayamkottai, June 2015.

UNIT I	CHAPTER 11SECTIONS 11.1 & 11.2 CHAPTER 12SECTIONS 12.1 TO 12.6
UNIT II	CHAPTER 13 SECTIONS 13.1 TO 13.4
UNIT III	CHAPTER 14 SECTIONS 14.1 TO 14.5
UNIT IV	CHAPTER 15 SECTIONS 15.1 TO 15.3
UNIT V	CHAPTER 16 SECTIONS 16.1

	TO 16.3 CHAPTER 17SECTIONS 17.1 TO 17.3

BOOK FOR REFERENCE:

1. Statistics Theory and Practice by R.S.N.Pillai and Bagavathi, S.Chand and Company Pvt. Ltd., New Delhi, 2007.

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GENDER, ENVIRONMENT & SUSTAINABILITY, HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – III SEMESTER
COURSE CODE: 7MMA3E4

ELECTIVE COURSE- IV- (A) – FUZZY MATHEMATICS

Unit i

Crisp sets and fuzzy sets.

Unit ii

Operation on fuzzy sets.

Unit iii

Fuzzy relations.

Unit iv

Fuzzy measures.

Unit v

Uncertainty and information.

Text books

1. J.klir and tina a folger, fizzy sets, uncertainty and information, prentice hall of india private ltd., new delhi, 2006

   Chapters : i, ii, iii, iv and v upto section 5.5.

Books for supplementary reading and reference:

1. V.novak, fuzzy sets and their applications, adom hilger, bristol, 1969.
2. A.kaufman, introduction to the theory of fuzzy subsets, academic press, 1975.
3. H.j.zimmermann, fuzzy set theory and its applications, allied publishers, chennai, 1996.

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GENDER, ENVIRONMENT & SUSTAINABILITY, HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – IV SEMESTER
COURSE CODE: 7MMA4C2

CORE COURSE XIII – OPERATIONS RESEARCH

Unit i

Network models: scope and definition of network models – minimal spanning tree algorithm– shortest – route problem: examples of the shortest route applications, shortest route algorithms, linear programming formulation of the shortest route problem – maximal flow model – enumeration of cuts, maximal flow algorithm, linear programming formulation of maximal flow mode – cpm and pert: network representation, cpm computations, construction of the time schedule, linear programming formulation of cpm, pert calculations.

Unit ii

Deterministic inventory models: general inventory model – role of demand in the development of inventory models – static economic – order – quantity models – classic eoq model, eoq with price breaks, multi item eoq with storage limitation – dynamic eoq models: no setup model, setup model.

Unit iii

Queing systems: elements of a queuing model – role of exponential distribution – pure birth and death models (relationship between the exponential and poisson distributions) pure birth model, pure death model.

Unit iv

Generalized poisson queuing model specialized poisson queues: steady state measures of performance, single server models, multiple server models, machine servicing model (m/m/r): (gd/k/k), r>k – (m/g/1): (gd/∞/∞) – pollaczek – khintchine (p-k) formula – other queuing models, queuing decision models.

Unit v

Non linear programming algorithms: unconstrained algorithms: direct search method, gradient method – constrained algorithms separable programming.

Text book

Hamdy a.taha, operations research, an introduction (8th edition), prentice – hall of india pvt. Ltd., new delhi.

Chapters : vi, xi, xv and xix (upto 19.2.1)

Books for supplementary reading and reference:

1. J.k.sharma, operations research, theory and applications, 3rd edition, macmillan india ltd, 2007.
2. F.s.hillier and g.j.lieberman, introduction to operations research (8th edition) tata mcgraw hill publishing company, new delhi, 2006.

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ENVIRONMENT & SUSTAINABILITY

III YEAR - VI SEMESTER
COURSE CODE: 7BMAE3A

ELECTIVE COURSE - III (A) – DISCRETE MATHEMATICS

Unit – i

if statements – connectives – atomic and compound statements – well formed formulae –truth table of a formula – tautology – implications and equivalence formulae – replacement process – functionally complete sets of connectives and duality law – normal forms – principle normal forms – theory of inference.

Unit – ii

relations – representation of a relation – operations on relations – equivalence relation – lattices – some properties of lattices, new lattices – modular and distributive lattices – boolean algebra, boolean polynomials.

Unit – iii

coding theory – introduction – hamming distance – encoding a message – group codes – procedure for generating group codes – decoding and error correction.

Unit – iv

finite automata – definition – representation – acceptability of a string –languages accepted by a finite automata – non-deterministic finite automata – equivalence of fa and nfa

Unit – v

phase structure grammars – chomsky hierarchy of languages – finite automata and regular languages

Text book:

1. Discrete mathematics by m.k.venkataraman, n.sridharan&n.chandrasekaran, the national publishing company, chennai 2000.

Unit i	Chapter 9sections 1 to 13
Unit ii	Chapter 2 sections 2 to 5; chapter10 sections 1 to 6
Unit iii	Chapter 8 sections 1 to 6
Unit iv	Chapter 12 sections 1 to 9
Unit v	Chapter 12 sections 16 to 18

Books for reference:

1. Discrete mathematical structure with applications to computer science – j.p.trembly&r.manohar, tata mcgraw hill publishing company, new delhil 2003.
2. Discrete mathematics by prof. V.sundaresan, k.s.ganapathysubramaniyan&k.ganesan, tata mcgraw hill publishing company, new delhi, 2000.

HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – I SEMESTER

COURSE CODE: 7BPH1C1

CORE COURSE-I – PROPERTIES OF MATTER AND SOUND

Unit i elasticity

Hooke's law – stress and strain – elastic modulii – work done in deforming a body – relation between elastic constants – poisson's ratio – expression for poisson ratio in terms of elastic constants.

Twisting couple on a cylinder – rigidity modulus by static torsion – torsional pendulum – determination of rigidity modulus of a wire.

Unit ii bending of beams

Expression for bending moment – cantilever – expression for depression – experiment to find young's modulus – cantilever oscillations – expression for period – experiment to find young's modulus using oscillation method.

Uniform bending – expression for elevation – experiment to find young's modulus using microscope. Non – uniform bending – expression for depression – experiment to determine young's modulus using mirror and telescope.

Unit iii fluid motion

Surface tension – excess pressure inside a spherical liquid drop and spherical bubble – determination of surface tension of a liquid by jaeger's method.

Definition of viscosity – coefficient of viscosity and its dimensions –equation of continuity– poiseuille's formula for the rate of flow of a liquid in a capillary tube — experiment to determine coefficient of viscosity of liquid–variation of viscosity of liquid with temperature– analogy between liquid flow and current flow.

Unit iv waves and oscillations

Simple harmonic motion – free, damped, forced vibrations and resonance.music and noise: intensity and loudness of sound – decibels – intensity level –characteristics of musical sound– consonance and dissonance–musical scale–tempered scale–noise pollution. Laws of transverse vibrations–sonometer verification of laws.– melde's string

Unit v sound

Expression for longitudinal waves in gases –newton's formula for velocity of sound – laplace correction – effect of temperature, pressure, density, humidity and wind – velocity of sound in water – velocity of sound in air – velocity of sound in isotropic solids – wave velocity and molecular velocity.

Ultrasonics: production of ultrasonic wave–piezoelectric crystal method– properties – detection – applications.

Text books:

1. Properties of matter – brijlal and subramanyam, eurasia publishing co., iii edition new delhi, 1983
2. A text book of sound – r.l.saigal, s.chand and company ltd., new delhi, 1985
3. Waves and oscillations – subramanyam and brijlal, vikas publishing house pvt. Ltd, new delhi, ii edition 2009

Books for reference:

1. Elements of properties of matter – d.s.mathur, s.chand & company ltd, new delhi, 10th edition 1976

2. A text book OF SOUND – KHANNA AND BEDI ATMA RAM & SON'S, NEW DELHI

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HUMAN VALUES & PROFESSIONAL ETHICS

I YEAR – II SEMESTER
COURSE CODE: 7BPH2C2

CORE COURSE V – ELECTRICITY, MAGNETISM AND ELECTROMAGNETISM

Unit i electrostatics

Coulomb's inverse square law in electrostatics–electric field–gauss law and applications – capacity – units of capacity – capacity of a condenser – capacity of a parallel plate condenser – capacity of a parallel plate capacitor with dielectric medium – capacity of a spherical capacitor – capacity of a cylindrical capacitor – energy density and power density of capacitor.

Unit ii chemical and heating effects of current

Faraday's law of electrolysis – electrical conductivity of an electrolyte – determination of specific conductivity of an electrolyte (kohlrausch bridge) – applications of electrolysis – gibb's helmholtz equation for the e.m.f. Of reversible cells.

Seebeck effect – laws of thermoelectric circuits - peltier effect -- peltier coefficient - thomson effect – thomson coefficient – thermoelectric diagrams and their uses – boy's radio micrometer.

Unit iii magnetic effects of current

Magnetic induction – magnetisation – relation between b, h and m – magnetic susceptibility – magnetic permeability – magnetic circuit – magnetic circuit of an electromagnet.

Dia, para, ferro, ferri,antiferro and antiferri magnetism – properties of dia, para and ferro magnetic materials – langevin's theory of dia and para magnetism – b.h. Curve – loss of energy due to hysteresis – uses of hysteresis curves.

Unit iv electromagnetic induction

Faraday's laws of electromagnetic induction – self inductance of a coil – coefficient of self inductance – self inductance of a long solenoid – self inductance by rayleigh's method – coefficientof mutual induction between a pair of coils – determination of mutual inductance- - eddy currents - charging of a capacitor through l and r– discharging of a capacitor through l and r.

Unit v electromagnetism

Displacement current – magnitude of displacement current – maxwell's equations – boundary conditions – equations of an electromagnetic wave – wave equation in one dimension.

Energy of an electromagnetic wave – poynting theorem and poynting vector – hertz experiment for production and detection of electromagnetic waves.

Text books:

1. Electricity & magnetism – brij lal and n. Subramanyam, ratan prakashan mandir, 18th edition, new delhi, 1990.

2. Electricity & magnetism – d.l.sehgal – l.k.chopra – n.k.sehgal,sultan chand and sons, 6th edition, new delhi, 2014
3. Fundamentals of magnetism & electricity – d.n.vasudeva, s.chand & co, 11th edition, new delhi, 1983.
4. Electricity and magnetism – k.k.tewari, s.chand & co, ii edition, new delhi, 1990.
5. Electricity and magnetism – r.murugeshan, s.chand & co, viith edition, new delhi, 2009.

Books for reference:

1. Electricity and magnetism – m.narayanamurthi and n.nagaratnam, the national publishing co., madras, 1988.
2. ELECTRICITY AND MAGNETISM–A.S. MAHAJAN AND A.A. RANGWALA, TATA MCGRAW–HILL COMPANY, NEW DELHI, 2007

HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER

COURSE CODE: 7BPH5C1

CORE COURSE IX – ANALOG ELECTRONICS

Unit i semiconductor diodes and regulated power supplies

Semiconductor – p-n junction diode – rectifiers – half and full wave rectifiers – bridge rectifier – efficiency – ripple factor – r-c and π section filter circuits.

Zener diode – characteristics – voltage regulator – regulated power supply using zener diode.

Unit ii transistors and biasing

Transistor action – cb, ce & cc modes – comparison – amplifier in ce arrangement – load line analysis – cut – off and saturation – relation between α and β – transistor biasing - base resistor bias - feedback resistor bias - voltage divider bias – jfet – construction and working - characteristic parameters.

Unit iii amplifiers

Single stage amplifier – phase reversal – dc & ac equivalent circuits – voltage gain – classification of amplifiers – input impedance of an amplifier - rc, transformer, direct coupled amplifiers – comparison of different types of amplifiers.

Unit iv oscillators

Transistor audio power amplifier – difference between voltage and power amplifiers – performance quantities of power amplifiers – classification of power amplifiers – expression for collector efficiency – class a amplifier – push – pull amplifier.

Feedback principle – negative and positive feedback – current gain and voltage gain in negative feedback amplifier – barkhasan condition for oscillation – damped and undamped oscillations –hartley, colpitt and phase shift oscillator.

Unit v operational amplifier

Characteristics of an ideal op-amp – virtual ground - op-amp biasing – non-inverting & inverting amplifiers– applications of op-amp – adder, subtractor, differentiator, integrator.

Op-amp signal generators: phase shift, hartley, square wave and triangular wave generators.

Text books:

1. V.k.mehta, principles of electronics, s.chand & co ltd.,10th edition, new delhi, 2007.
2. R.s.sedha – text book of applied electronics, s.chand & co ltd., ii edition, new delhi, 2004.
3. Electronic devices and circuits – salivahanan and suresh kumar, mc graw hill edn. New delhi, 2012

Books for reference:

1. B.l. theraja – basic electronics – s. Chand & co, v edition, new delhi, 2009.

   Malvino & leach – transistor approximations – international publication, new delhi, – 2000

HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – VI SEMESTER
COURSE CODE: 7BPH6C2

CORE COURSE XIV – DIGITAL ELECTRONICS

Unit i fundamentals

Codes and number systems–decimal, binary, octal and hexadecimal number systems–inter conversions–8421bcd code–other 4 bit bcd codes–excess 3 code–graycode

Basic logic gates – and, or, not, nand, ex-or functions – their truth tables. Nand & nor as universal gates – de morgan's theorem – boolean algebra - associative law, commutative law and distributive law.

Unit ii combinational logic

Binary arithmetic circuits – half adder – full adder– 8421 bcd adder – half subtractor – full subtractor.

Simplification of boolean functions – algebraic simplification – and-or logic – nand-nand net work – or – and logic – nor-nor network – sum of products & product of sums – karnaugh mapping of two, three, four variables – don't care conditions

Unit iii sequential logic

Flip-flop – r-s flip-flop – clocked r-s flip-flop – d flip-flop- j-k flip-flop.

Registers & counters : registers – shift registers – shift right, shift left registers – counters – ring counter – asynchronous (ripple) counter – mod 10 counter – up counter – down counter – synchronous counter – different modulli counters.

Unit iv d/a and a/d converters

Introduction – variable resistor network – binary ladder – d/a converter – d/a accuracy and resolution

A/d converter : simultaneous conversion – counter method – successive approximation – a/d accuracy and resolution.

Unit v memory circuits and microprocessors

Programming bipolar proms – mos static ram cell – mos dynamic ram cell.

Microprocessors: introduction to microprocessor - internal architecture of intel 8085 microprocessor - block diagram – registers - internal bus organization- functional details of 8085 ic pins and control signals.

Text books:

1. Integrated electronics – millman and halkias, international ed., mcgraw book co., new delhi, 1972.
2. Digital principles and application – malvino and leach, , 4th ed., tata mcgraw hill, vi edn, new delhi, 2008.
3. Fundamentals of digital electronics and microprocessor– anokh singh and a.k. chabra, , s.chand and co ltd, ii edn., new delhi, 2005.

Books for reference:

1. Digital technology principle and practice – virendra kumar, new age international pvt. Ltd., new delhi, 2005.
2. Digital fundamentals – floyd and jain, pearson edn. Singapore, 2006
3. Digital circuits and logic design – samuel.c.lee, prentice hall of india pvt.ltd, new delhi, 2005

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HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – IV SEMESTER
COURSE CODE: 7MPHE3B

ELECTIVE COURSE-III (B)–ANALYTICAL INSTRUMENTATION

Unit i: uv, visible and ir spectrophotometry

Ultraviolet absorption spectrophotometry – instrumentation – detectors – filters – monochromators.

Instruments for absorption photometry.

Unit ii: atomic emission spectroscopy

Spectroscopic sources – atomic emission spectrometer – photographic and photoelectric detection.

Infrared spectrophotometry – instrumentation – radiation sources – detectors – fourier transform interferometer.

Unit iii: x-ray and raman spectroscopy

Instrumentation – detectors – x-ray fluorescence spectrometer.

Laser raman spectrometer – laser sources – detectors – sample handling.

Unit iv: nmr and esr spectroscopy

Nmr basic principles – continuous wave nmr spectrometer – esr basic principles – esr spectrometer.

Scanning electron microscope (sem) – electron spectroscopy for chemical analysis (esca)

Unit v: flame emission atomic absorption spectroscopy

Instrumentation for flame spectrometer methods – flame emission spectrometry – atomic absorption spectrometry.

Atomic fluorescence spectrometry – comparison of fes and aas.

Books for study:

1. Instrumental methods of analysis – h.h. willard & merritretal cbs pub & co, new delhi
2. Molecular spectroscopy – p.s. sindu, tmh, new delhi

Books for reference:

1. Spectroscopy vol. I & ii ed. Straugan & walker chapman & hail, 1976

ENVIRONMENT & SUSTAINABILITY, HUMAN VALUES & PROFESSIONAL ETHICS

II YEAR – IV SEMESTER
COURSE CODE: 7MPHE5A

ELECTIVE COURSE-V (A)-ENERGY AND ENVIRONMENTAL PHYSICS

Unit I: essential of environmental physics

Structure and thermodynamics of the atmosphere-temperature, pressure and density variations with height-composition of air-radiation temperature of the earth and greenhouse effect-transport of matter, energy and momentum in nature-raynold's transport theorem- energy and momentum equations- hydrostatic equilibrium- stratification and stability of atmosphere- general circulation of the tropics- indian monsoon-elements of weather and climate.

Unit II: solar energy

Solar constant- solar radiation at the earth's surface-solar radiation measurements-estimation of average solar radiation-solar radiation on tilted surfaces.

Solar energy collectors-physical principle of the conversion-flat-plate collectors-transmissivity of cover system-energy balance equation and collector efficiency-thermal analysis of flat-plate collector and useful heat gained by the fluid.

Unit III: bio-energy

Biomass conversion technologies-photosynthesis - biogas generation-factors affecting bio digestion-classification of biogas plants-advantages and disadvantages-types-constructional details of some main digesters.

Unit IV: hydrogen energy: safety and utilization

Relevance in relation to depletion of fossil fuels and environmental considerations-various factors relevant to safety, use of hydrogen as fuel, use in vehicular transport, hydrogen for electricity generation, fuel cells, various type of fuel cells, applications of fuel cell, elementary concepts of other hydrogen- based devices such as hydride batteries.

Unit V: environmental pollution

Factors governing air, water and noise pollution - air and water quality standards - waste disposal- heat island effect. Land and sea breeze. Puffs and plumes - purification and control devices of water and air pollution.

Books for study:

1. Non- conventional sources of energy – g.d. Rai, khanna publishers, new delhi.(1998)
2. Hydrogen as an energy carrier technologies systems economy: winter & nitch (eds.)(1988)
3. Hydrogen as a future energy carrier: andreas zuttel, andreas borgschulte and louis schlapbach (2008)

Books for reference:

1. Atmospheric science: an introductory survey(academic press, 1977)
2. Environmental physics(john wiley, 2011)

3. The physics of atmosphere (cambridge univ. Press, 1977)

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GENDER

I YEAR – I SEMESTER
COURSE CODE: 7BFC1C1

CORE COURSE - I - FASHION DESIGNING

Unit – I fashion concept

terms related to the fashion industry - fashion, style, fad, classic, collection, chic, mannequin, fashion show, trend, haute couture. Meaning of fashion, origin of fashion, meaning of fashion designing, classification of fashion, influence of fashion; fashion illustration and fashion cycle, fashion theory

Unit – II design & elements of design

Design –definition, types- structural and decorative design, requirements of a good structural and decorative design. Application of structural and decorative design in the dress, elements of design -line, shape or form, color, size and texture.

Unit – III principles of design, accessories & trimmings principles of design – balance, rhythm, harmony, emphasis and proportion. Fashion accessories- shoes, hand bags, hats and tie -different types/shapes. Trimmings, decorations and its application, lace, ric rac, appliqué, embroidery, smocking, fasteners, belts and bows, faggoting, ruffles, patch work and quilting.

Unit – IV colours

colours – importance. Dimensions of colour,colour theory – prang colour chart. Colour harmonies - monochromatic, analogus, complimentary - double complimentary split complimentary, traid colours,,. Cool colours and warm colours. Cmyk colours. Moods of colour.

Unit – V figure irregularities

designing dress for unusual figures becoming and unbecoming, for the following figure types - stout figure, thin figure, slender figure, narrow shoulders, broad shoulders, round shoulders, large bust, flat chest , large hip, large abdomen, round face, large face, small face, prominent chin and jaw, prominent forehead.

Text books:

1. Khurana and sethi, introduction to fashion technology, fire well publication, new delhi, 2007.
2. Pundir. N, fashion technology today and tomorrow, mittal publication, new delhi, 2007
3. Mary mathews, practical clothing construction-part i, cosmic press, chennai, 1997.

Books for reference:

1. Narang, hand book of fashion technology, asia pacific business press inc, new delhi.
2. Fashion designing- study material prepared by the department.
3. Gupta et al, text book of clothing and textiles and laundry, kalyani publishers, new delhi, 2005.

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ENVIRONMENT & SUSTAINABILITY

II YEAR – IV SEMESTER
COURSE CODE: 7BFC4C1

CORE COURSE -VII – TEXTILE DYEING AND PRINTING

Unit – I textile process

Water, water hardness, types, quality required for wet processing industries, softening process, preparatory process sequence for woven and knitted fabric. Need for processing - dry and wet processing for fabrics – preparatory wet processing – singeing, desizing, scouring, bleaching, mercerizing, degumming and carbonizing.

Unit – II dyeing

Classification of dyes – natural dyes, mordants and its types, mordanting techniques. Dyeing method, advantages & disadvantages of natural dyes. Synthetic dyes – basic dyes, direct dyes, vat, sulphur, napthol, reactive, azoic, acid, and disperse dyes.

Unit – III dyeing methods

Stages of dyeing methods of dyeing - batch, winch, jigger, package, hank dyeing. Colourfastness tests. Recent advancement and technology in dyeing.

Unit – IV printing

printing-introduction to printing, differences between printing and dyeing, preparation of fabric for printing-cotton, polyester, wool and silk, methods of printing, preparation of printing paste, selection of thickening agents.

Unit – V printing methods

direct printing: block printing, stencil printing, screen printing, discharge printing, resist printing – batik and tie and dye. Other printing methods: mino printing inkjet printing, heat transfer printing, photo printing.

Text books:

1. Textile dyeing and finishing- study material prepared by the department.
2. Needles.h.l, textile fibers, dyes, finishes and processes , noyes publications, 2011.
3. Smith.j.l, textile processing, printing dyeing, finishing, abhishek publications, chandigarh, 2006.
4. Beginners guide to fabric dyeing and printing – stuart & robinson, technical books, london (1982)

Books for reference:

1. Singh.k.v.p, elementary idea of textile dyeing, printing and finishing ,kalyani publishers, 2009.
Corbman.b.p, textile fiber to fabric, mcgraw, hill international edition, sixth edition, 2009

III YEAR – V SEMESTER

COURSE CODE: 7BFC5C1

CORE COURSE - IX–GARMENT MANUFACTURING TECHNOLOGY

Unit – I

Planning, drawing and reproduction of the marker. The requirements of marker planning. Efficiency of the marker plan. The spreading of the fabric to form a lay. The requirement of the spreading process. Methods of spreading, nature of fabric packages. The cutting of fabric, objectivenes of cutting and methods of cutting

Unit – II

The properties of seam, seam types, stitch types. Sewing machine feed mechanism, sewing machine needles, sewing threads, fiber type, construction of thread finishes. Thread sizing, thread packages, cost, properties and seam performance. Sewing problems, problems of stitch formation. Problem of pucker, problems of damage to fabric along the stitch line. Testing for sewability and tailorability.

Unit – III

Basic sewing machines and associated work aids, simple automation . The use of components & trims – labels and motifs, lining, interlining, wadding, lace, braids & elastics, hooks and loop fastening, seam binding and tape, shoulder pad, eyelets & laces, zip fastener, buttons,tack buttons,snap fasteners and rivets,performance properties of components and trims.

Unit – IV

Fusing – definition, advantages of fusible interlinings, fusing process. The means of fusing, fusing equipments, methods of fusing, quality control in fusing. Alternative of fusible interlining.

Unit – V

Pressing: the purpose of pressing, categories of pressing, means of pressing, pressing equipments and methods, pleating, permanent press. Pressing practices in indian industries

Text books:

1. Introduction to clothing production management – 2nd edition, a.j. chutter, blackwell science, new delhi.,2000
2. Gerry cooklin, garment technology for fashion designers –blackwell science,
3. New delhi ,2000.
4. Gerry cooklin, introduction to clothing manufacture–blackwell science,new delhi,2000.
5. Dudeja.v.d., professional management of fashion industry, gangandeep publications, new delhi, 2005.

Books for reference:

1. Philip kotler and kevin lane, marketing management, keller,pearson education inc., delhi,. 2006.
2. Kitty g. Dickerson, inside the fashion business, pearson education, singapore,2003.
3. Kathryn mokelvey, janine munslow, fashion design process, innovation and practice, black well science ltd, u.k,2005.

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GENDER, HUMAN VALUES & PROFESSIONAL ETHICS

III YEAR – V SEMESTER

COURSE CODE: 7BFC1E2

ELECTIVE COURSE - I (B) – FASHION CLOTHING PSYCHOLOGY

Unit – I fashion terms

terms related to the fashion industry - fashion, style, fad, classic, collection, chic, mannequin, fashion show, trend, haute couture. Fashion forecasting.

Unit – II fashion psychology

factors influencing fashion changes-psychological needs of fashion, social psychology of fashion, technological, economical, political, legal and seasonal influence. Role of costume as a status symbol, personality and dress, repetition of fashion

Unit – III fashion changes and consumer acceptance

fashion leaders, fashion innovators, fashion motivation, fashion victim, fashion followers. Adoption of v – trickle down, trickle up and trickle across theory. Fashion forecasting - market research, evaluating the collection, fashion services, colours services, video services, newsletter services, websites, directories and references.

Unit – IV fashion designers

indian designers-rohit khosla, gitanjal ksshyap, hemant trivedi, j.j. valaya, ritu kumar, rohit bal, tarun tahiliani, sangeethe chopra, bhamini subramaniam, anju modi, ravi bajaj, ritu beri

Unit – V world wide fashion centers world fashion centers- france, italy, england, germany, canada, new york.

Text books:

1. Elaine stone, the dynamics of fashion, fairchild publications, new york, 2001.
2. Jenny davis, a complete guide to fashion designing, 1st edition, abhishek publication, chandigarh, 2009.
3. Frings, fashion from concept to consumer, 7th edition, dorling kindersley publishing inc, india, 2008.
4. Man meet sodhia, history of fashion, kalyani publishers, new delhi, 2009.
5. Man meet sodhia, history of fashion, kalyani publishers, new delhi, 2007.
6. Pundir,fashion technology today and tomorrow,a mittal publication,new delhi, 2007.
7. M.r.soloman & n.j. rabolt, consumer behaviour in fashion, dorling kindersley publishing inc, india, 2006.

Books for reference:

1. Benneett, “femina book of fashion”, coleman & co., ltd., mumbai (1998)
2. Jeaneettee A. Jarnow, Miriarn Guerrerio, “Inside the Fashion Business”, Mecmillion Publishing Company, New York
3. Harriet T, Mc Jimsey, “Art and fashion in clothing selection”, The lowa state University Press, Ames, Lowa

III YEAR – VI SEMESTER

COURSE CODE: 7BFC6P2

CORE COURSE - XIV–MEN'S APPAREL – PRACTICAL

DESIGNING, DRAFT AND CONSTRUCT THE FOLLOWING GARMENTS

GENDER

1. S.b vest-with/without collar, button attached, sleeveless.

2. T-shirt-front half open, zip attached, with collar.
3. Slack shirt-with collar, half sleeve, patch pocket.

4. Kalidhar kurta -kali piece, side pocket, round neck, half open.

5. Nehru kurta-half open, stand collar, with/without pocket, full sleeve.

6. Pyjama/bermudas-elastic/tape attached waist, with/without fly.

7. One piece pant – fly attached, separate belt attached, front and back dart.

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GENDER

III YEAR – V SEMESTER
COURSE CODE: 7BFC5P2

CORE COURSE -XI– WOMEN'S APPAREL -PRACTICAL

DESIGNING, DRAFT AND CONSTRUCT THE FOLLOWING GARMENTS

1. Infant wears- Bib, Panty and Jabla
2. Baba suit / Romper.
3. Children's frock - 2 variety
4. Knickers - Elastic Waist.
5. Saree Petticoat- Six Panel, Decorative Bottom.
6. Blouse- Front/Back Open, Fashioned Neck, Waist Band at Front, with Sleeve.
7. Ladies tops
8. Salwar / Churidhar
9. Kameez with/ without Slit, with /without Flare, with/without Opening, with/ with out Panels, with/ without Sleeve.
10. Nightie / Maxi with / without fullness, with/without opening, with/without yokes, with/without puff sleeve.

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HUMAN VALUES AND PROFESSIONAL ETHICS

Objectives:

- To develop the language skills of students by offering adequate practice in professional contexts.
- To enhance the lexical, grammatical and socio-linguistic and communicative competence of first year physical sciences students
- To focus on developing students' knowledge of domain specific registers and the required language skills.
- To develop strategic competence that will help in efficient communication
- To sharpen students' critical thinking skills and make students culturally aware of the target situation.

Learning outcomes:

- Recognise their own ability to improve their own competence in using the language
- Use language for speaking with confidence in an intelligible and acceptable manner
- Understand the importance of reading for life
- Read independently unfamiliar texts with comprehension
- Understand the importance of writing in academic life
- Write simple sentences without committing error of spelling or grammar

(outcomes based on guidelines in ugc locf – generic elective)

Nb: all four skills are taught based on texts/passages.

Unit 1: communication

Listening: listening to audio text and answering questions
- Listening to instructions

Speaking: pair work and small group work.
Reading: comprehension passages –differentiate between facts and opinion
Writing: developing a story with pictures.
Vocabulary: register specific - incorporated into the lsrw tasks

Unit 2: description
Listening: listening to process description.- drawing a flow chart.
Speaking: role play (formal context)
Reading: skimming/scanning-
Reading passages on products, equipment and gadgets.
Writing: process description –compare and contrast
paragraph-sentence definition and extended definition-
free writing.
Vocabulary: register specific -incorporated into the lsrw tasks.

Unit 3: negotiation strategies

Listening: listening to interviews of specialists / inventors in fields
(subject specific)
Speaking: brainstorming.(mind mapping).
small group discussions (subject- specific)
Reading: longer reading text.
Writing: essay writing (250 words)
vocabulary:register specific - incorporated into the lsrw tasks

Unit 4: presentation skills

Listening: listening to lectures.
Speaking: short talks.
Reading: reading comprehension passages
Writing: writing recommendations
interpreting visuals inputs
Vocabulary: register specific -incorporated into the lsrw tasks

Unit 5: critical thinking skills

Listening: listening comprehension- listening for information.
Speaking: making presentations (with ppt- practice).
Reading: comprehension passages –note making.
comprehension: motivational article on professional competence, professional ethics and life skills)
Writing: problem and solution essay– creative writing –summary writing
Vocabulary:register specific - incorporated into the lsrw tasks

COMMUNICATIVE ENGLISH -SEMESTER-II [PART-II-ENGLISH]

Weightage: 3 credits duration: 90hrs

Unit i (18 hours)

1. Listening and speaking
    A. Listening and responding to complaints (formal situation)
    B. Listening to problems and offering solutions (informal)
2. Reading and writing
    A. Reading aloud (brief motivational anecdotes)
    B. Writing a paragraph on a proverbial expression/motivational idea.
3. Word power/vocabulary
    A. Synonyms & antonyms
4. Grammar in context
    a. Adverbs
    b. Prepositions

Unit ii(20 hours)

1. Listening and speaking
    A. Listening to famous speeches and poems
    B. Making short speeches- formal: welcome speech and vote of thanks.
    Informal occasions- farewell party, graduation speech
2. Reading and writing
    A. Writing opinion pieces (could be on travel, food, film / book reviews or on any contemporary topic)
    B. Reading poetry
        B.I. Reading aloud: (intonation and voice modulation)
        B.II. Identifying and using figures of speech - simile, metaphor, personification etc.
3. Word power
    A. Idioms & phrases
4. Grammar in context
    a. Conjunctions and interjections

Unit iii (18 hours)

1. Listening and speaking
    A. Listening to ted talks
    B. Making short presentations – formal presentation with ppt, analytical presentation of graphs and reports of multiple kinds
    C. Interactions during and after the presentations

2. Reading and writing
    A. Writing emails of complaint
    B. Reading aloud famous speeches
3. Word power
    A. One word substitution
4. Grammar in context

a. Sentence patterns

Unit iv (16 hours)

1. Listening and speaking
    A. Participating in a meeting: face to face and online
    B. Listening with courtesy and adding ideas and giving opinions during the meeting and making concluding remarks.
2. Reading and writing
    A. Reading visual texts – advertisements
    B. Preparing first drafts of short assignments
3. Word power
    A. Denotation and connotation
4. Grammar in context:
    a. Sentence types

Unit v (18 hours)

1. Listening and speaking
    A. Informal interview for feature writing
    b. Listening and responding to questions at a formal interview
2. Reading and writing
    A. Writing letters of application
    b. Readers' theatre (script reading)
    c. Dramatizing everyday situations/social issues through skits. (writing scripts and performing)
3. Word power
    a. Collocation
4. Grammar in context
    a. Working with clauses

Professional english for physical sciences

HUMAN VALUES AND PROFESSIONAL ETHICS

Objectives:

- To develop the language skills of students by offering adequate practicein professional contexts.
- To enhance the lexical, grammatical and socio-linguistic and communicative competence of first year physical sciences students
- To focus on developing students' knowledge of domain specific registersand the required language skills.
- To develop strategic competence that will help in efficient communication
- To sharpen students' critical thinking skills and make students culturallyaware of the target situation.

Learning outcomes:

- Recognise their own ability to improve their own competence in using the language
- Use language for speaking with confidence in an intelligible and acceptable manner
- Understand the importance of reading for life
- Read independently unfamiliar texts with comprehension
- Understand the importance of writing in academic life
- Write simple sentences without committing error of spelling or grammar (outcomes based on guidelines in ugc locf – generic elective)

Nb: all four skills are taught based on texts/passages.Unit 1: communication

Listening: listening to audio text and answering questions

- listening to instructions

Speaking: pair work and small group work.
Reading: comprehension passages –differentiate between facts and opinion
Writing: developing a story with pictures.
Vocabulary: register specific - incorporated into the lsrw tasks

Unit 2: description

Listening: listening to process description.-drawing a flow chart.
Speaking: role play (formal context)
Reading: skimming/scanning-

Unit 3: negotiation strategies

Listening: listening to interviews of specialists / inventors in fields(subject specific)
Speaking: brainstorming. (mind mapping).
Small group discussions (subject- specific)
Reading: longer reading text.
Writing: essay writing (250 words)
Vocabulary: register specific - incorporated into the lsrw tasks

Unit 4: presentation skills

Listening: listening to lectures.
Speaking: short talks.
Reading: reading comprehension passages
Writing: writing recommendations interpreting visuals inputs
Vocabulary: register specific - incorporated into the lsrw tasks

Unit 5: critical thinking skills

Listening: listening comprehension- listening for information.
Speaking: making presentations (with ppt- practice).
Reading: comprehension passages –note making.
Comprehension: motivational article on professional competence, professional ethics and life skills)
Writing: problem and solution essay– creative writing –summary writing
Vocabulary: register specific - incorporated into the lsrw task

Professional english-semester-ii [part-iii -add on course]

Weightage: 4 credits duration: 90hrs

Objectives:

The professional communication skills course is intended to help learners in arts and science colleges

- Develop their competence in the use of english with particular reference to the workplace situation.
- Enhance the creativity of the students, which will enable them to think of innovative ways to solve issues in the workplace.
- Develop their competence and competitiveness and thereby improve their employability skills.
- Help students with a research bent of mind develop their skills in writing reports and research proposals.

Unit 1- communicative competence (18 hrs)

Listening – listening to two talks/lectures by specialists on selected subject specific topics - (ted talks) and answering comprehension exercises (inferential questions)

Speaking: small group discussions (the discussions could be based on the listening and reading passages- open ended questions

Reading: two subject-based reading texts followed by comprehension activities/exercises

Writing: summary writing based on the reading passages.

Grammar and vocabulary exercises/tasks to be designed based on the discourse patterns of the listening and reading texts in the book. This is applicable for all the units.

Unit 2 - persuasive communication (18 hrs)

Listening: listening to a product launch- sensitizing learners to the nuances of persuasive communication

Speaking: debates – just-a minute activities

Reading: reading texts on advertisements (on products relevant to the subject areas) and answering inferential questions

Writing: dialogue writing- writing an argumentative /persuasive essay.

Unit 3- digital competence (18 hrs)

Listening to interviews (subject related)

Speaking: interviews with subject specialists (usingvideo conferencing skills)

Creating vlogs (how to become a vlogger and use vlogging tonurture interests – subject related)

Reading: selected sample of web page (subject area)

Writing: creating web pages

Reading comprehension: essay on digital competence for academic and professional life.

The essay will address all aspects of digital competence in relation to ms office and how they can be utilized in relation to work in the subject area

Unit 4 - creativity and imagination (18 hrs)

Listening to short (2 to 5 minutes) academic videos (prepared by emrc/ other mooc videos on indian academic sites – e.g. Https://www.youtube.com/watch?v=tpvicscudy0)

Speaking: making oral presentations through short films – subject based

Reading: essay on creativity and imagination (subject based)

Writing – basic script writing for short films (subject based)

- Creating blogs, flyers and brochures (subject based)
- Poster making – writing slogans/captions(subject based)

Unit 5- workplace communication& basics of academic writing (18 hrs)

Speaking: short academic presentation using powerpoint

Reading & writing: product profiles, circulars, minutes of meeting.

Writing an introduction, paraphrasing

Punctuation(period, question mark, exclamation point, comma, semicolon, colon, dash, hyphen, parentheses, brackets, braces, apostrophe, quotation marks, and ellipsis)

Capitalization (use of upper case)

Outcomes of the course.

At the end of the course, learners will be able to,

- Attend interviews with boldness and confidence.
- Adapt easily into the workplace context, having become communicatively competent.
- Apply to the research &development organisations/ sections in companies and offices with winning proposals.

Instruction to course writers:

1. Acquisition of subject-related vocabulary should not be overlooked. Textboxes with relevant vocabulary may be strategically placed as a pre task or in summing up
2. Grammar may be included if the text lends itself to the teaching of a grammatical item. However, testing and evaluation does not include grammar.

HUMAN VALUES AND PROFESSIONAL ETHICS

OBJECTIVES:

- To develop the language skills of students by offering adequate practice inprofessional contexts.
- To enhance the lexical, grammatical and socio-linguistic and communicativecompetence of first year physical sciences students
- TO FOCUS ON DEVELOPING STUDENTS' KNOWLEDGE OF DOMAIN SPECIFIC REGISTERS ANDTHE REQUIRED LANGUAGE SKILLS.
- To develop strategic competence that will help in efficient communication
- TO SHARPEN STUDENTS' CRITICAL THINKING SKILLS AND MAKE STUDENTS CULTURALLY AWAREOF THE TARGET SITUATION.

LEARNING OUTCOMES:

- RECOGNISE THEIR OWN ABILITY TO IMPROVE THEIR OWN COMPETENCE IN USING THELANGUAGE
- Use language for speaking with confidence in an intelligible and acceptablemanner
- UNDERSTAND THE IMPORTANCE OF READING FOR LIFE
- Read independently unfamiliar texts with comprehension
- UNDERSTAND THE IMPORTANCE OF WRITING IN ACADEMIC LIFE
- Write simple sentences without committing error of spelling or grammar(Outcomes based on guidelines in UGC LOCF – Generic Elective)

NB: ALL FOUR SKILLS ARE TAUGHT BASED ON TEXTS/PASSAGES.

UNIT 1: COMMUNICATION

LISTENING: LISTENING TO AUDIO TEXT AND ANSWERING QUESTIONS- LISTENING TO INSTRUCTIONS

SPEAKING: PAIR WORK AND SMALL GROUP WORK.

READING: COMPREHENSION PASSAGES –DIFFERENTIATE BETWEEN FACTS AND OPINION

WRITING: DEVELOPING A STORY WITH PICTURES.

VOCABULARY: REGISTER SPECIFIC - INCORPORATED INTO THE LSRW TASKS

UNIT 2: DESCRIPTION

LISTENING: LISTENING TO PROCESS DESCRIPTION.-DRAWING A FLOW CHART.
SPEAKING: ROLE PLAY (FORMAL CONTEXT)
READING: SKIMMING/SCANNING-

READING PASSAGES ON PRODUCTS, EQUIPMENT AND GADGETS.
WRITING: PROCESS DESCRIPTION –COMPARE AND CONTRAST

PARAGRAPH-SENTENCE DEFINITION AND EXTENDED DEFINITION

VOCABULARY: REGISTER SPECIFIC -INCORPORATED INTO THE LSRW TASKS.

UNIT 3: NEGOTIATION STRATEGIES

LISTENING: LISTENING TO INTERVIEWS OF SPECIALISTS / INVENTORS IN FIELDS (SUBJECT SPECIFIC)
SPEAKING: BRAINSTORMING. (MIND MAPPING).

SMALL GROUP DISCUSSIONS (SUBJECT- SPECIFIC)
READING: LONGER READING TEXT.
WRITING: ESSAY WRITING (250 WORDS)
VOCABULARY: REGISTER SPECIFIC - INCORPORATED INTO THE LSRW TASKS

UNIT 4: PRESENTATION SKILLS

LISTENING: LISTENING TO LECTURES.
SPEAKING: SHORT TALKS.
READING: READING COMPREHENSION PASSAGES

WRITING: WRITING RECOMMENDATIONS
INTERPRETING VISUALS INPUTS
VOCABULARY: REGISTER SPECIFIC - INCORPORATED INTO THE LSRW TASKS

UNIT 5: CRITICAL THINKING SKILLS

LISTENING: LISTENING COMPREHENSION- LISTENING FOR INFORMATION.
SPEAKING: MAKING PRESENTATIONS (WITH PPT- PRACTICE).

READING : COMPREHENSION PASSAGES –NOTE MAKING.
COMPREHENSION: MOTIVATIONAL ARTICLE ON PROFESSIONAL COMPETENCE, PROFESSIONAL ETHICS AND LIFE SKILLS)
WRITING: PROBLEM AND SOLUTION ESSAY– CREATIVE WRITING –SUMMARY WRITING
VOCABULARY: REGISTER SPECIFIC - INCORPORATED INTO THE LSRW TASKS

PROFESSIONAL ENGLISH FOR LIFE SCIENCES

SEMESTER-II

[PART-III – ADD-ON COURSE]
SYLLABUS

WEIGHTAGE : 4 CREDITS DURATION: 90 HOURS

OBJECTIVES:

The Professional Communication Skills Course is intended to help Learners in Arts and Science colleges,

- Develop their competence in the use of English with particular referenceto the workplace situation.
- Enhance the creativity of the students, which will enable them to think ofinnovative ways to solve issues in the workplace.
- Develop their competence and competitiveness and thereby improve their employability skills.
- Help students with a research bent of mind develop their skills in writingreports and research proposals.

UNIT 1- COMMUNICATIVE COMPETENCE (18 HOURS)

Listening – Listening to two talks/lectures by specialists on selected subject specific topics - (TED Talks) and answering comprehension exercises (inferential questions)

Speaking: Small group discussions (the discussions could be based on the listening and reading passages- open ended questions

Reading: Two subject-based reading texts followed by comprehension activities/exercises

Writing: Summary writing based on the reading passages.

UNIT 2 - PERSUASIVE COMMUNICATION (18 HOURS)

Listening: listening to a product launch- sensitizing learners to the nuancesof persuasive communication

Speaking: debates – Just-A Minute Activities

Reading: reading texts on advertisements (on products relevant to the subject areas) and answeringinferentialquestions

Writing: dialogue writing- writing an argumentative /persuasive essay.

UNIT 3- DIGITAL COMPETENCE (18 HOURS)

Listening to interviews (subject related)

Speaking: Interviews with subject specialists (using video conferencingskills)

Creating Vlogs (How to become a vlogger and use vlogging to nurtureinterests – subject related)

Reading: Selected sample of Web Page (subject area)Writing:
Creating Web Pages
Reading Comprehension: Essay on Digital Competence for Academic andProfessional Life.

The essay will address all aspects of digital competence in relation to MSOffice and how they can be utilized in relation to work in the subject area

UNIT 4 - CREATIVITY AND IMAGINATION (18 HOURS)

Listening to short (2 to 5 minutes) academic videos (prepared by EMRC/ other MOOC videos on Indian academic sites – E.g. https://www.youtube.com/watch?v=tpvicScuDy0)

Speaking: Making oral presentations through short films – subject based Reading :
Essay on Creativity and Imagination (subject based)
Writing – Basic Script Writing for short films (subject based)

- Creating blogs, flyers and brochures (subject based)
- Poster making – writing slogans/captions (subject based)

UNIT 5- WORKPLACE COMMUNICATION & BASICS OF ACADEMIC WRITING (18 HOURS)

Speaking: Short academic presentation using PowerPoint

Reading & Writing: Product Profiles, Circulars, Minutes of Meeting. Writing an introduction, paraphrasing
Punctuation (period, question mark, exclamation point, comma, semicolon, colon, dash, hyphen, parentheses, brackets, braces, apostrophe, quotation marks, and ellipsis)

Capitalization (use of upper case)

OUTCOME OF THE COURSE:

At the end of the course, learners will be able to,

- Attend interviews with boldness and confidence.
- Adapt easily into the workplace context, having becomecommunicatively competent.

APPLY TO THE RESEARCH & DEVELOPMENT ORGANISATIONS/ SECTIONS INCOMPANIES AND OFFICES WITH WINNING PROPOSALS

PROFESSIONAL ENGLISH FOR ARTS & SOCIAL SCIENCES

OBJECTIVES:

- To develop the language skills of students by offering adequate practice in professional contexts.
- To enhance the lexical, grammatical and socio-linguistic and communicative competence of first year physical sciences students
- To focus on developing students' knowledge of domain specific registers and the required language skills.
- To develop strategic competence that will help in efficient communication
- To sharpen students' critical thinking skills and make students culturally aware of the target situation.

LEARNING OUTCOMES:

- Recognise their own ability to improve their own competence in using the language
- Use language for speaking with confidence in an intelligible and acceptable manner
- Understand the importance of reading for life
- Read independently unfamiliar texts with comprehension
- Understand the importance of writing in academic life
- Write simple sentences without committing error of spelling or grammar

(Outcomes based on guidelines in UGC LOCF – Generic Elective)

NB: All four skills are taught based on texts/passages.

UNIT 1: COMMUNICATION

Listening: Listening to audio text and answering questions
- Listening to Instructions

Speaking: Pair work and small group work.
Reading: Comprehension passages –Differentiate between facts and opinion
Writing: Developing a story with pictures.
Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 2: DESCRIPTION
Listening: Listening to process description.-Drawing a flow chart.
Speaking: Role play (formal context)
Reading: Skimming/Scanning-
Reading passages on products, equipment and gadgets.
Writing: Process Description –Compare and Contrast
Paragraph-Sentence Definition and Extended definition-

Free Writing.
Vocabulary: Register specific -Incorporated into the LSRW tasks.

UNIT 3: NEGOTIATION STRATEGIES

Listening: Listening to interviews of specialists / Inventors in fields (Subject specific)
Speaking: Brainstorming. (Mind mapping).
Small group discussions (Subject- Specific)
Reading: Longer Reading text.
Writing: Essay Writing (250 words)
Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 4: PRESENTATION SKILLS

Listening: Listening to lectures.
Speaking: Short talks.
Reading: Reading Comprehension passages
Writing: Writing Recommendations
Interpreting Visuals inputs
Vocabulary: Register specific - Incorporated into the LSRW tasks

UNIT 5: CRITICAL THINKING SKILLS

Listening: Listening comprehension- Listening for information.
Speaking: Making presentations (with PPT- practice).
Reading : Comprehension passages –Note making.
Comprehension: Motivational article on Professional Competence, Professional Ethics and Life Skills)
Writing: Problem and Solution essay– Creative writing –Summary writing
Vocabulary: Register specific - Incorporated into the LSRW tasks