CSM 301  

ORGANISATIONAL BEHAVIOUR

Unit - I  

Unit – II  
Biological foundation of Human Behaviour.  
Personality : Concept, determinants, affect of personality on Behaviour, Personality traits, theories and test of Personality.  
Learning : Definition, theories, Shaping and learning Curves.  
Attitudes : Concept, Characteristics functions, and formation of attitude; Measurement of attitudes, Cognitive Dissonance theory.  
Perception : Concept, process and factors affecting it.  

Unit – III  
Group Dynamics – Concept, Characteristics types, Stages of Group Development, Group Behaviour models, Group Cohesiveness, Group norms, Group think and group shift.  
Work Teams : Group Vs. teams, Types Creating high performance teams, Turning Individuals into team players.

Unit – IV  
Organisational Power Structure and Leadership Patterns :–  
Power : Meaning and Types, Distinction between Power, Authority and influence Contingency approaches to power.  
Leadership : Meaning, traits of an effective leader, leadership behaviour, leadership styles, managerial grid, Fiedler’s Contingency Model.

Unit – V  
Organisational Changes and Development :  
Organisational Changes : Definitions, Goals of OC, forces for change, Resistance to change, Overcoming Resistance and managing Organisational change.  
Organisational Development : Concepts, values, techniques, Organisational Culture and climate, Organisational effectiveness, Management of Stress and conflict in Organisations.

Suggested Reading :  
1. Luthans Fred : Organisational Behaviour  
2. Davis, Keith : Human Behaviour at work  
Unit - I  Promotional Communication – Marketing communication, Process of Marketing Communication, Promotion as Communication, Growth of Promotion and Advertising, Noise in Communication, Elements of Promotion mix, Objective of Promotion communication, Factors influencing Promotion Mix.

Unit - II  Advertising World – What is advertising? Role of Advertising, Reasons for Advertising, Advertising and Marketing Mix, Advertising as translation of product concept into customer benefits, as a information, as a tool of consumer welfare, Types of Advertising, Legal and Ethical issues in Advertising.

Unit – III  Advertising Decision – Advertising Budget, Advertising Appeals, Media, Concept of media , Media Selection, Media Planning Process, Types of Media (Print Media, Electronic Media, Outdoor and Transit Media, Direct Marketing and Cinema), Ad-Effectiveness (DAGMAR Approach, Pre testing and Post testing all medias, Various approach).


Unit – I  Context, Concept & Boundaries
The changing social context & immerging issues, the concept & junction of human resource management, structuring human resource management.

Unit – II Getting Human Resource
Job analysis & job design, job evaluation-concept & methods, competency approaches to job analysis, changing nature of roles.

Unit - III Key Practices
Recruitment, selection, dislocation & relocation of employees, orientation, career & succession planning, performance & potential appraisal

Unit – IV Basics of Human Resource Planning
Introduction to human resource planning system – the emerging context, process & functioning of human resource planning, methods & techniques of demand management, methods & techniques of supply management, contemporary trend in managing demand & supply

Unit – V Compensation & Reward Management
Laws covering wages, welfare & benefits, compensation strategy, structure & composition, reward management
Unit – I Production Design

Process planning- plant capacity – capacity planning- make or buy decisions – Use of cross-over chart for selection process. Plant location: Factories to be considered in plant location- choice of general region, particular community and site – Multi-plant location decision – Plant location trends.

Unit – II Layout of facilities


Unit – III Methods Analysis and Work Measurement

Methods study procedures – The purpose of time study – Stop watch time study – Performance rating – Allowance factors – Standard time – Work sampling technique.

Unit – IV Maintenance


Unit – V Quality Control

Purposes of inspection and quality control – Acceptance sampling by variables and attributes – Control charts for variables, fraction defectives and defects.
CSM – 303 MM  SALES & DISTRIBUTION MANAGEMENT

Unit – I

Concept and objective of sales management; Designing of sales force, objective and requirement of sales force. Sales force structure and size.

Unit – II

Sales organization, types of sales organization Recruitment, selection, training types, motivation, compensation and performance evaluation.

Unit – III

Personal selling (definition, Role, importance), types of personal selling, steps of personal selling, handling, objections qualities of successful sales man. DSR – Daily sales reports.

Unit – IV

Meaning, Nature and structures of distribution channel; functions and flows in channels; Types of channels; Channel Management, Relationships and competitive dynamics. Role and functions of marketing intermediaries.

Unit – V

Logistics: physical distribution (concepts and critical decisions); Sales quotas, sales territories; Sales budget, Sales meeting, Sales contests.
[Cases discussion]
Practical project: Study on Distribution structure and Role of personnel selling.
Unit – I Human Resource Development System
Prerequisites, tasks of HRD department, role, function & efficacy of HRD system, human resource development strategy

Unit – II Human Resource Development Concept
Career system (career planning & performance appraisal), competency mapping, coaching & mentoring

Unit – III Human Resource Development System & Profession
Reward system, self reward system, HRD for workers, professionalism in HRD, HRD strategies & experiences

Unit – IV Human Resource Development Techniques
Training, mentoring & performance coaching, building roles & teams

Unit – V Human Resource Development Issues & Experiences
HRD audit, multi source feed face, technology & HRD, diversity management, managing globalization
Unit- I  Basics of OR
Introduction, objective, scope, necessity of OR in industries, Role of OR in decision making, types of mathematical models, OR methodology, limitations of OR.

Unit – II  Linear Programming

Unit – III  Transportation Model

Network Model: Introduction, minimal spanning tree technique, maximal flow technique, shortest route technique.

Unit – IV  Project Management

Unit – V  Forecasting: Types of forecasts. Measures of forecast accuracy, time series forecasting models, causal forecasting methods, monitoring and controlling forecast, queueing theory, decision theory, Markov Analysis.
CSM 304 (A+B)  SPECTROSCOPY

UNIT – I

UV-visible Spectroscopy
Theory, Instrumentation, Characteristic absorption of organic compounds. Woodward and fiser rules for calculating $\lambda_{\text{max}}$. Interpretation of spectra. Application of UV-visible spectroscopy.

Photo electron spectroscopy
general theory and application of UV and X-Ray photo electron spectroscopy (UV PES and ESCA) a general idea of auger photoelectron spectroscopy, application of photoelectron spectroscopy, ESCA and Auger spectroscopy to the study of surfaces.

UNIT – II

Infrared Spectroscopy
Theory, vibration modes, instrumentation (Dispersive and non dispersive instrument), applications and interpretation of spectra
Brief idea of Raman Spectroscopy

UNIT – III

Nuclear Magnetic Resonance Spectroscopy
Theory of NMR, Chemical Shift, Spin-spin splitting, environmental effect on NMR spectra. Instrumentation, CW or FTNMR instrument, rules governing the interpretation of $H^1$ NMR spectra. Application in quantitative analysis, spectroscopy of others important nuclei: $^{15}N, ^{19}F, ^{29}Si, ^{31}P$
$^{13}C$ NMR: Historical Development, various terms used in $^{13}C$ NMR, application of $^{13}C$ NMR to structure determination, two dimensional NMR spectroscopy, principle, the COSY experiment, COSY (DQF) and NOESY experiment, three dimensional NMR experiment

UNIT – IV

Concept, instrumentation & use of ESR spectroscopy, ENDOR, ELDOR
NQR: Theory, Instrumentation & application of nuclear quadrupole resonance spectroscopy.

UNIT – V

Mass Spectroscopy
Massmabur (Fe & Sn)
General theory, instrumentation and important applications of Massmabur Spectroscopy.
UNIT - I

Polymer Rheology and Morphology
Introduction stress and strain, ideal elastic solid, Newtonian and non-newtonian fluid. Apparent viscosity the power, low molecular hole concept, weissenberg effects, rheological properties of fluid, melt fracture and irregular, time dependent flow, viscoelastic behaviour, mechanical model of a viscoelastic material relaxation enhancement under constant stress. Hysteresis, creep and relaxation of typical plastics.

Physical & mechanical testing of Polymer
Stress-strain measurement, dynamic mechanical behaviour, stress cracking, hardness, tear strength or tear resistance, resilience’s, flex cracking resistance, abrasion resistance, impact resistance.

UNIT – II

Polymer processing
Compression moulding, casting, extrusion, Fiber-spinning, injection moulding, thermoforming
Polymer Products
Belting, hoses, rubber footwear, Rubber to metal bonded components, cellular rubbers, sports goods, cables, latex products, rubber rollers, extruded and moulded products.

UNIT – III

Functions and example of compounding ingredients

(1) Activators
(3) Blowing agents
(5) Pigments
(7) Release agents
(9) Tactics
(11) Mineral rubber
(2) Accelerators
(4) Softners
(6) Tactifiers
(8) Reclaimed rubber
(10) Ground crumb
(12) Retardees

Fillers

Non Black Fillers: Introduction manufactures characteristics and application of calcium carbonate, clays, silica in the rubber industry.
Reinforcing and extending filler: Introduction manufactures characteristics and application of some representative fillers.
UNIT – IV

Adhesives – Solvent based, water based and adhesives based on various polymers. Epoxide resins curing of epoxide resins. Dilutents and other additives and their applications.
Composite materials, properties, advantages and methods of preparation.
Blends: Preparation, processing, properties uses and Industrial aspects.

UNIT – V

Chemical Testing
Identification of materials by; elemental and solubility analysis. Identification by colour tests. Estimation of specific chemical characteristics like; acid number, saponification value and hydroxyl value. Solvent extractions and its analysis for polymers

Analysis & Testing of Polymers
Thermal analysis: DSC, TGA, TMA, DTA
UNIT - I

Drugs acting on gastrointestinal disorders

(a) Agents for control of gastric acidity and treatment of peptic ulcers: Classification, pharmacology, mode of action, adverse effects, synthesis and structure activity relationship of Ranitidine, Sodium bicarbonate, Magnesium Hydroxide, Aluminum Hydroxide Gel, Sucralfate.

(b) Emetics, Antiemetics and other Gastrointestinal drugs.

(c) Drugs for constipation and Diarrhoeas: Classification, pharmacology, mode of action, adverse effects, synthesis and structure activity relationship of Bran, Ispaghula, Diphenylmethanes, Sulfasalazine, Codeine.

UNIT - II

Cardiovascular drugs

a) Cardiovascular Drugs: Classification, pharmacology, mode of action, adverse effects, synthesis and structure activity relationship of Digoxin, Digitoxin, Clonidine, Hydralazine, Methyl dopa, Nitroglycerine, Isoxsupurine, Prenylamine, Disopyramide Phosphate, Procainamide Hydrochloride.

b) Hematopoietic Agents: Growth factors, minerals, anticoagulants, thrombolytic and antiplatelet drugs

UNIT - III

Drugs acting on Kidney

a) Relevant physiology of urine formation

b) Diuretics: Classification, pharmacology, mode of action, adverse effects, synthesis and structure activity relationship of Chloromerodrin, Hydrochlorothiazide, Acetazolamide, Chlor thlidona, Furosemide, Spironolactone, Maltitol.

c) Antidiuretics: Classification, pharmacology, mode of action, adverse effects, synthesis and structure activity relationship of Ly pressured, Amiloride, Carbamazepine.
UNIT - IV
(a) **Drugs of Arthritis & Goat:** Classification, pharmacology, mode of action, adverse effects, synthesis and structure activity relationship of Gold, d-Penicillamine, Chloroquine, Sulfasalazine, NSAIDs, Colchicine, Allopurinol.
(b) **Drugs of Cough and Bronchial Asthma:** Classification, pharmacology, mode of action, adverse effects, synthesis and structure activity relationship of Codeine, dextromethorphan, bromhexine, ambroxol, guaiphenesin, isoprenaline, salbutamol, Theophylline, Aminophylline, Atropin methonitrate, ketotifen.
(c) Treatment of drug allergies

UNIT - V
a. **Drugs acting on skins and mucous membrane:** Demulcents (Glycerine), Emollients (Vegetable Oils), Adsorbents and protectives (Calamine, Zinc Oxide, Zinc/Magnesium stearate, Dimethicone), Astringents (Tannia acid, alcohol, minerals), Melanizing Agents, Drugs of Psoriasis (Calcipotriol), Demelanizing Agents (Hydroquinone, Monobenzone), Sunscreens, Drugs for acne vulgaris (Benzoyl peroxide, Retinoic acids, Antibiotics, Isotretinoin).

b. **Anti Fungal Drugs:** Classification, pharmacology, mode of action, adverse effects, synthesis and structure activity relationship of amphotericin B, Ketoconazol, Griseofulvin, Itaraconazol.

c. **Antiviral Drugs:** Classification, pharmacology, mode of action, adverse effects, synthesis and structure activity relationship of Acyclovir, Amantidine hydrochloride, Zidovudine.