CSM 101  MANAGEMENT CONCEPTS AND PROCESSES

Course Objective: The objective of the course is to help the students to gain an understanding of the functions and responsibility of the managers which will serve as a foundation for the study of most of the functional areas in the MBA program.


Approaches to Management – Commodity, Paternalistic, Behavioural, Process, Systems and Contingency.


Note: Cases and Presentation should be discussed and organized in each unit, and cases should be asked in the semester examinations.

Suggested Reading:
1. Kouutz O’Donnel & Weilrich : Elements of Management
2. Newmann & Summer : Process of Management
3. R.D.Agrawal : Organisation and Management
4. Peter Drucker : Practice of Management
5. L.M.Prasad : Principle of Management
CSM 102 MANAGEMENT ACCOUNTING


Accounting Records and System – Journal, Ledger and Preparation of Trial Balance and Final Account (Basic Problem only).

Unit – II  Accounting and Major Cost Concepts – Concepts and classification of cost, Methods and Techniques of Costing, Managerial Costing and Break-even Analysis, Standard Costing and Various Analysis – Computation of Material and Labour variance only.


Unit – IV  Statement of Change in Financial Statement –

Fund Flow Analysis – Meaning and Concept of Funds and Fund flow, Significance, Importance and Limitation of Fund Flow Statement.

Cash Flow Analysis – Comparison between fund flow statement and cash flow statement, Significance and time taken of cash flow statement, Preparation of cash flow statement.

Format of Companies Balance sheet – (No Numerical Questions).

Unit – V  Budgeting and Budgetary Control – Meaning Objective and Characteristics of Budgetary Control, Advantages and Limitation of Budgetary Control, Preparation of Sales Budget, Performance Budgeting, Concept of Management Audit and Responsibility Accounting.

Suggested Reading :

1. Robert Anthony  : Management Accounting.
2. Khan & Jain  : Management Accounting.
UNIT-I: Introduction to Marketing Research:
Marketing Research, Scope and Importance, Types of Marketing Research, Marketing Research Process, Ethical Issues in Marketing Research, Marketing Research in India.

UNIT-II: Research Process:
Research Design, Sampling Procedures and Problems, Methods and tools of Data Collection, Analysis and Interpretation of Data.

UNIT – III Measures of Central Tendency:
Concept and Computation of mean, mode and median, Standard deviation, Co-efficient of variation, Harmonic Mean, Geometric Mean

UNIT – IV Correlation and Regression Analysis:
Uses of regression analysis, Regression lines, Regression by using method of least square, Simple, multiple and partial correlation.

UNIT – V: Tests and Hypothesis:
Probability theory & probability distributions
Concept of Chi-square test, Meaning and Uses of Chi-square measure, Test of significance, Large samples – Problems relating to test of significance of means, Test of significance of proportions.
Test of significance of small samples, ‘t’ test for significance of means only.

Reference Books:
1. Business Mathematics by S.P. Gupta
2. Business Statistics by V.K. Kapoor & Sancheti
UNIT - I  Data Analysis
Types of errors, propagation of errors, accuracy and precision, significant figures, least square analysis, average, standard deviation, t test, F test, Q test, standardization of analytical methods.

Titrimetric Methods of Analysis
General concept, stoichiometric calculations, acid-base titrations, titration curves, acid-base indicators, complexometric titration, metal ion indicator, precipitation titrations, adsorption indicators.

UNIT - II  Gravimetric Methods of Analysis
Principles of gravimetric analysis, formation and properties of precipitates, applications of gravimetric analysis, organic precipitation.

Solvent Extraction
Theoretical principle, classification, factors favoring extraction, extraction equilibrium, instrumentation and application.

UNIT - III  Ion Exchange Chromatography
Theories, use of synthetic ion exchangers in separation, chelating ion exchange resins, liquid ion exchange, experimental techniques and applications.

Separation Techniques
Classification of chromatographic techniques, fundamentals of paper, thin layer, column and electrophoresis, ion chromatographic techniques. Application of these techniques in qualitative and quantitative analysis.

UNIT - IV  Gas Chromatography
Principles, theories, instrumentation and application of GSC and GLC, online GC/Mass and GC/IR analysis.

HPLC
Principles, instrumentation and role of HPLC in qualitative and quantitative analysis, comparison of GC and HPLC. Application of LC/MS in analysis.

UNIT - V  Nephelometry and Turbidimetry
Introduction, general principles, instrumentation and application.

Flame photometry
Introduction, theory, instrumentation, interferences and factors affecting flame photometry.

Atomic Absorption Spectroscopy
Theory of atomic absorption spectroscopy, instrumentation, application in quantitative analysis. ICP-AAS.
UNIT - I
Classification of Pesticides structure, synthesis, mode of action and application of environmental impact of following:
Insecticide of Plant Origin: Nicotine, Pyrethroids, allthrin.
Fungicides: Dichlone, captan

UNIT - II
Structure, synthesis, mode of action, application & environmental impact of following:
Chlorinated hydrocarbon: BHC, heptachlor, aldrin, dieldrin, endosulfar, SAR in the class.

UNIT - III
Structure, synthesis, mode of action, application & environmental impact of following:
Organo Phosphorous insecticides: Dichlorovos, Paraoxon, SAR in the class
Dithio phosphoric acid derivatives: Malathion.
Thio phosphoric acid: Parathion, demeton, chlorthion etc.
Pyrophosphoric acid derivative: TEPP

UNIT - IV
Structure, synthesis, mode of action, application & environmental impact of following:
Carbonate insecticides: Carbaryl, baygon
Rhodenticide: Zinc Phosphide, warfarin, fluoroacetamide.

UNIT - V
Formulation of Pesticides
Dry formulations: Dusts, granules, we table powders, seed disinfectant.
Liquid formulation: Emulsions, suspensions, aerosols and sprays.
UNIT – I
Carbohydrates
monosaccharide, Disaccharide and polysaccharide.
Cyclic structure of glucose, Glycolysis, TCA cycle & its regulation & oxidation of pyruvate to acetyl CoA
Glyoxylate cycle, phosphogluconate (HMS) pathway, Gluconeogenesis and its regulation.
Disorders of carbohydrate metabolism.

UNIT – II
Proteins
Classification, structure & separation Biosynthesis of protein:
Structure, importance & biosynthesis of essential and nonessential amino acids.
Transamination & oxidative deamination of amino acids.

UNIT – III
Introduction and Classification of Enzymes
Chemical kinetics and mechanism of enzyme – substrate complex
Factors governing enzyme activity & Isozymes & inhibition of enzymes
General structure of nucleic acid.

UNIT – IV
Introduction & classification of lipids.
Biosynthesis & oxidation of fatty acids including β-oxidation.
Ketonebodies & their oxidation.
Disorders of lipid metabolism.

UNIT – V
Introduction, classification of hormones.
Hormone receptors & intracellular messengers.
Hormones of thyroid, adrenal, gonads & pituitary.
Fat & water-soluble vitamins & their deficiency.
CSM 106 (A)  PAINTS AND PIGMENTS

UNIT – I
Pigments
General characteristics of pigments, Types of pigments, Blue pigments, Red pigments, Yellow pigments, Green pigments and Black pigments, General properties and methods of preparations of white pigments.

UNIT – II
Dyes
Introduction, General characteristics colour and constitution, Basic operations in Dying, Classification of dyes according to their mode of application and based on chemical constitution. Some commercial dyes viz. Azo dyes, Acid, acid mordant, direct milling and stilbene azo dyes, Basic dyes Anthraquinone (Vat) dyes Indigo dyes Reactive dyes Disperse dyes

UNIT – III
Printing Inks
Introduction, properties and uses of printing inks, Raw materials used in printing inks. Types of printing inks, Lithographic, Gravure, Flexographic and Screen inks, General process of manufacture of printing inks.

UNIT – IV
Paints and Varnishes
General characteristics of paint varnishes and lacquers, their function, manufacture and classification. General account of enamel, and emulsion paints water based paints & japans.

UNIT – V
Paint & Varnish Formulations
Function of vehicle, solvent, thinner, pigment, dyes, filler, resins, drier, insecticides and additives in paint formulations.
Testing of formulations/paints
Viscosity, brush ability, color measurement, color matching, light fastness, opacity, drying time, adhesion, elasticity hardness, gloss, film thickness, wet and dry, fineness of grind, water resistance, humidity resistance, salt spray resistance, durability, weatherometers.
UNIT – I
**General:** Muscular, Skeleton, System Joints and Glands
**Introduction:** Terminology and architectures of Human body.
**Cell:** Basic structure of Cytoplasm, cellulose (Chromosomes and genes) and cell membrane, with their function.
**Tissues:** Classification, differences and function.
**Mussels:** Classification, differences and functions, Mechanism of muscular contraction
**Skeleton:** Bones and cartilage, types and function, Nomenclature of human bones
**Joints:** Type and movements, Nomenclature of various joints.
**Glands:** Type & functions Exocrine glands; Endocrine glands, names, location, hormones and functions.

UNIT – II
**Nervous system and Special senses organs:** Basic structure of nervous system. Types of neurons classification of nervous system.
**Brain:** Parts and their functions and CSF.
**Spinal chord:** Structure and functions.
**Cranial nerves:** Name function, An idea of spinal nerves.
**Autonomic nervous system:** Sympathetic and parasympathetic nervous system and their functions.
**Eye:** Structure and vision.
**Ear:** Structure, hearing and balance.
**Skin:** Tongue and none: Structure function.

UNIT – III
**Blood, circulatory system, Respiratory system**
**Blood:** Composition and function, blood coagulation, immunity.
**Basic plan of circulatory system.**
**Heart:** Structure and Physiology
**Arterial System:** Major arteries, Blood pressure, Venous system.
**Lymph:** Lymphatic organs and circulation of lymph.

UNIT – IV
**Respiratory system:** Basic plan, Respiratory passage Functions of Respiration
**Mechanism of Breathing:** Pleural cavity, intrapleural pressure
**Lung Trachea and Larynx.**
**Brief idea about long volumes and capacities**
**Bronchial asthma**
**Digestive, Urinary and Genital Systems:**
**Digestive system:** Basic plan, Parts of alimentary, canal and function.
**Digestive glands:** Liver, Pan crease: Structure and functions.
**Food:** Nutritional value, Vitamins.(Water soluble and fat soluble vitamins)
**Mal nutrition (Marasmus and kwashiorkor)**
UNIT - V
Excretory System: Parts, function and urine formation.
Male genital system: Parts and function.
Female genital system: Parts and function.
Spermatogenesis and oogenesis