

SYLLABUS OF INFORMATION TECHNOLOGY

Syllabus of Third Semester IT

3IT20 MANAGERIAL ECONOMICS AND ACCOUNTANCY

UNIT-I:

Meaning, Nature and Scope of managerial economics. Concepts used in managerial economics such as incremental concepts, Tinen perspective Discounting for time, Opportunity cost equimarginlism. Law of diminishing marginal utility,' Methodology of managerial economics, Simulation.

UNIT-II:

Demand Analysis : Types of demand, Consumers and producers, Goods perishable and durable goods, Determinants of demand, determinants of demand, price, income and cross elasticity of demand, Methods of demands forecasting. ..

UNIT-III :

Theory of production, Production function, Firm and industry, Laws of returns, Input output analysis, Break even analysis, Cost concepts, Fix va6able average marginal and total cost, depreciation cost.

UNIT-IV:

New economic policy liberalization, Globalization with respect to current Indian economic scenario, International trade balance of trade and payments.

Price and Output determination under perfect competition, monopoly monopolistic competition, Oligopoly, Pricing strategies adopted by the Indian and foreign companies,

UNIT-V:

Accounting : Evolution of accounting, definition of accounting and Accounting as an information system, Users of accounting information, managerial accounting, Accounting principles, book keeping, Financial and

TEXT BOOKS:

1. Managerial Economics by O.P, Chopre
2. Managerial Economics by G.S, Gupta
- 3, Managerial Economics by D.N. Dwivedi.

REFERENCES:

1. Managerial Economics by P.N. Reddy'
2. Managerial Accounting by S.P, Gupta .
3. Managerial Economics by K. C. Shankarnarayan

3IT 15 APPLIED MATHEMATICS

UNIT-1:

Integral Transforms: Fourier Integral Theorem, Fourier And Laplace Transforms And Their Simple Properties, Simple Application Of Laplace Transforms To Solve Ordinary Differential Equations Including Simultaneous Equations, Solution Of One Dimensional Diffusion And Wave Equation By Transform Method

UNIT-2:

Z-Transform Definition And Properties, Inversion, Relation With Laplace Transform, Application Of Z-Transform To Solve Difference Equations With Constant Coefficient.

UNIT-3:

Matrices: Inverse Of Matrix By Adjoining Method And Its Use In Solving Simultaneous Equations, Rank Of Matrix, Consistency Of A System Of Equation, Eigen Values, Eigen Vector, Reduction Of A Diagonal Form, Statement And Verification Of Cauchy-Hamilton Theorem, Determination Of Roots Of Algebraic Equation By Matrix Method, Sylvester's Theorem, Association Of Matrices With Linear Differential Equation Of Second Order With A Constant Coefficient.

UNIT-4:

Theory Of Probability: Axioms And Models, Conditional Probability, Baye's Rule Examples, Random Variables –Simple Examples, Discrete And Continuous Random Variables, Jointly Distributed Random Variables.

UNIT-5 :

Distribution Of Random Variables – Examples Expectation –Moments, Conditional Distribution And Conditional Expectations, Stochastic Process –Bernoulli And Poisson Process

TEXT BOOKS :

1. Mathematics For Engineers By Chandrika Prasad.
2. Advanced Mathematics For Engineers By Chandrika Prasad.
3. Matrix Methods For Engineering By L.A.Pipes.
4. Higher Engineering Mathematics By B.S.Grewal
5. Probability, Statistics With Reliability, Queuing And Computer Science Application By K.S.Trivedi

REFERENCES:

1. Applied Mathematics For Engineers and physics by L.A.Pipes & harvile
2. Probability theory by Spiegel Murray, schaum series
3. Probability and Statistics for Engineers 4th Ed, by Miller, freund and Johnson

3IT17 ELECTRONIC DEVICES AND CIRCUITS

UNIT-I:

Theory Of PN Junction Diode, Junction Capacitance, Breakdown Zener Diodes, Varactor Diodes, Tunnel Diode, Power Supplies: Half Wave And Full Wave Diodes, Voltage Doublers, Filter Types L & Pi, Regulation, Ripple Factors, Voltage Stabilizers.

UNIT-II:

Junction Transistor: Theory Of Operation, Static Characteristics, Breakdown Voltages, Current, and Voltage & Power Limitations.

UNIT-III:

Biasing Arrangements, Voltage Gain, Current Gain, Input And Output Impedance For CS, CE, And, CD, Fet Amplifiers, Brief Discussion About UJT & SCR Application.

UNIT-IV:

Biasing of BJT: Different Biasing Arrangements And Stability Factors, Thermal Runway In Power Transistors, Voltage, Current, Power Gain, Input And Output Impedances In CE, CE, & CC Amplifiers And Comparison.

UNIT-V:

Feedback amplifier, oscillators using BJT Barkhausen's Criterion ,RC phase shift ,Wein Bridge ,LC oscillators, crystal oscillators, frequency stability
Power amplifier: classification, A,B ,and C classes ,efficiency
Pushpull class: A ,B, all complimentary symmetric ,distortions and its calculations.

PRACTICALS based on above syllabus .

TEXT BOOKS :

1. Integrated Electronics By Millman & Halkias .
2. Electronic Devices & Circuits By Millman & Halkias .
3. Electronic Circuits –Discrete And Integrated By Schilling Belov .
4. Micro Electronics By Millman And Gabel.

3IT16 PROGRAMMING LANGUAGE –‘C’

UNIT-1 :

Algorithm ,flowchart ,program development steps ,basic structures of C language ,C tokens ,data types declaration of variables ,assigning values ,arithmetic ,relational and logical operators ,increment and decrement operators ,control operators, expression ,I/O operations ,IF and SWITCH statements ,WHILE ,DO-WHILE and FOR statements ,programming examples.

UNIT-II :

One and two dimensional arrays ,initialization ,string variables , declaration ,reading ,writing ,string handling functions , user defined function variables and storage classes ,recursion ,preprocessor ,structure definition , initialized ,assigning values, passing of structure as arguments, unions, programming examples .

UNIT-III :

Declaration And Initializing Pointers ,Pointer Based Expressions, Arrays ,Strings ,Function And Structures ,C Program Examples ,File Management In C ,Opening And Closing ,I/O Operations On Files , Programming Examples.

UNIT-IV :

Enumerated Data Types ,Renaming Data Types With Typedef(),Type Casting ,Bit-Wise Operators And Bit Manipulation ,Pointer To Pointer To Pointer. Pointers To Functions. Functions Returning Pointers Functions With Variable Number Of Arguments, Dynamic Memory Allocation. Programming Examples.

UNIT-V:

Drawing lines. circle. rectangle. ellipse. arc using standard library function. line drawing using DDA algorithm, Displaying text in various styles and fonts. drawing and filling shapes. pallets and colors. . Programming Examples.

PRACTICALS based on above syllabus

TEXT BOOKS :

1. Programming In ANSI C By Balguruswamy
2. The C . Programming By Kernighan And
3. LET US C By Y.C Kanetkar

3IT 18 ELECTRICAL SCIENCE

UNIT I-:

Network theorems : Superposition, Reciprocity Thevenin's, Norton's, Maximum power transfer for AC circuits, .Two port networks parameters and interconnections.

UNIT-II :

Nodal and Mesh analysis, Source transformation ,,Duality.

UNIT-III:

Measurement of Inductance, Resistance and Capacitance, Measurement of low, medium and high resistance, Elementary methods of measurements of inductance and capacitance, Generalized theory of AC. bridges, Their uses for measurement of inductance and capacitance.

UNIT-IV:

Measuring Instruments: Classification, Absolute and Secondary instruments, Electronics instruments (VTVM, CRG, DVM. etc.), Synchroscope.

UNIT-V:

Generalized principles of operation of alternators and synchronous motors, Stepper motor.

TEXT BOOKS:

1. Electrical Technology by B.L. Theraja
2. Electrical & Electronics Measurement & Instrumentation by A. K. Sawhney
3. Control System Engineering by I.I. Nagarath and M.Gopal.

3IT 19 DIGITAL ELECTRONICS AND UESIGN

UNIT-I:

Analog Vs. Digital Systems, Transistor as a switch, Boolean Algebra, Boolean identities, Logic problems, Binary, gray, Octal, Hex and ASCII codes, Gates and their truth tables, DeMorgan's Law, Sum of products & Product of sums. Combinational Logic: Concepts, SSI, MSI & VLSI circuit classification, Standard TTL, CMOS characteristics, Karnaugh map, Simplification of sum of products and product of sum, Solution to problems using K-maps.

UNIT-II:

Decoders, Encoders, Multiplexers, Demultiplexers, Code converters, Characteristics of display devices, Standard configuration of gates as SSI/MSI/LSI circuits, Conversion of decoders/MUX into one another, Use of MUX as a function generator.

UNIT-III:

Introduction to flip-flop, Latches, Concept of clock, Memory organization with flip-flop as basic cell, RAM, ROM, EPROM and EEPROM - an overview, Master slave combination and conversion of one type to another type flip-flops

UNIT-IV:

Excitation tables and introduction to sequential circuits. Counters-synchronous/asynchronous, Different modulo counters with reset/clear facility, Design of counters of arbitrary modulo with K-maps, Lock free counter.

UNIT-V:

Arithmetic circuits – Adders, Subtractors (Half and Full), BCD adder/subtractor Concept of ALU and its design, Integrated circuit versions of multivibrators and their design parameters.

TEXT BOOK:

1. Digital Design by M.M.Mano
2. Digital Electronics Principles by Malvino
3. Digital Integrated Electronics by Herbert. Taub
4. Digital Circuit and Microprocessor by Herbert Taub
5. Introduction to Digital System by Ralmer'
5. Digital Electronics by Ryan

3IT 21 COMPUTER WORKSHOP-I

1. Introduction To PC Hardware.
2. Working Under DOS Operating Environment.
3. Working Under WINDOWS Operating Environment.
4. Multimedia ,IT In Business.