

## B. Sc. (IT) - II Year Exam.

### BIT - 201 Computers Oriented Statistical Methods

Time: 3 Hrs

Max. Marks: 75

#### Unit 1

**Introduction to Statistics:** meaning, scope of statistics, collection and classification of data.

#### Unit 2

Application based processing logic of measures of central tendency, dispersion, skewness and kurtosis.

#### Unit 3

**Bivariate Data:** Correlation - Meaning types of correlation, Karl Pearson's Correlation and rank correlation, properties of correlation coefficients.

#### Unit 4

**Linear Regression:** Processing logic and numerical based on fitting of regression lines (using least square method).

#### Unit 5

Various properties related to regression coefficients.

#### Text / Reference Books

1. S.C. Kapoor, and all, "Elements of Mathematical Statistics", S. Chand & Sons.
2. S.C. Gupta, "Fundamentals of Mathematical statistics", PIII, 1991
3. Bala Guruswamy, "Computers oriented Statistical Methods", S.Chand, 1990
4. S.P. Gupta, "Fundamentals of Statistics", S.Chand 1993.
5. M.R. Spiegel, "Statistics", Schaum Series, McGraw-Hill, 1981.

## BIT - 202 Visual Programming

Time: 3 Hrs

Max.Marks: 75

### UNIT I

**Client Server Basics:** Client-Server And Other Computing Architectures, Understand File Server Versus Client-Server Database Deployment, Two Tier Versus Three Tire Client Server.

**Client-Server Model, Visual Basic Building Blocks And Default Controls:** Forms, Using Controls, Exploring Properties, Methods And Events, Introduction To Intrinsic Controls, Working With Text, Working With Choices, Special Purpose Controls.

**VB Advance Controls:** Events, Menu bar, Popup Menus, Tool bar, Message Box, Input Box, Built-in Dialog Boxes, Creating MDI, Working with Menus

### UNIT II

**VB Programming Fundamentals And Variables:** Introduction to Variables, Variable Declaration, Arrays, Introduction to Constants And Option Explicit Statement, Assignment Statements, Working With Math Operations, Strings, Formatting Functions.

**Controlling and Managing Program:** All Control Statements, Loops, Error Trapping, Working with Procedures, Functions, Controlling How Your Program Starts.

**Common controls and control arrays:** Introduction to Common controls- Tree view, list view, tab strip, Creating and working with control arrays.

### UNIT III

**Visual Basic and databases:** Understanding the Data Controls and Bound Controls, Introduction to Data Form Wizard, Introduce DAO, Working with Record sets, Record Pointer, Filters, Indexes, Sorts And Manipulation of Records.

**Remote and ActiveX Data Objects:** Working With ODBC, Remote Data Objects and Remote data Control, Introducing ADO, ADO Data Control.

### UNIT IV

Using Data Grid Control and Active X Data Objects.

**ActiveX Controls, Extending ActiveX Controls and Classes:** Creating, Testing, Compiling, Enhancing and User Drawn ActiveX Controls, Using ActiveX Control Interface Wizard and Property Pages Wizard, Introducing Ambient, Extender Objects, Creating Property Pages, Building Class Modules, ActiveX DLL.

### UNIT V

**Client-Server Development Tools:** COM, Services Models, Development Tools Included with VB 6, Working with Source Safe Projects.

**Reports and Packaging:** Data Reports and Crystal Reports, Packaging A Standard EXE Project, VB And Internet: Introduction to VBScript, Tools used with VBScript and VBScript Languages, Introduction to Active Server Pages, ASP Objects.

### Text / Reference Books

1. Gary Cornell – “Visual Basic 6 from the Ground up” - Tata McGraw Hill - 1999.
2. Noel Jerke – “Visual Basic 6 (The Complete Reference)” - Tata McGraw Hill - 1999.

## **BIT 203: Fundamentals of Operating Systems**

**Time: 3 Hrs**

**Max.Marks: 75**

### **Unit I**

**Introduction:** Definition of an Operating System, Mainframe, desktop, single user & multi user OS distributed, real-time and handheld OS.

### **Unit II**

**Operating System Structures:** System components, Operating System services, system calls, systems programs, system structure, virtual machines.

**Process Management:** criteria, scheduling algorithms, algorithm evaluation.

**Process Synchronization:** The critical section problem, semaphores, classical problems of synchronization.

### **Unit IV**

**Memory Management:** Swapping, contiguous memory allocation, paging, segmentation, segmentation with paging.

### **Unit V**

**Virtual Memory:** Demand paging, page replacement, allocation of frames, thrashing.

### **Text / Reference Books**

1. Silberschatz G.G., "Operating System Concepts", John Wiley & Sons Inc.
2. A. Tananbaum "Modern Operating Systems", Prentice Hall Publications.

## **BIT 204: Web Technology I**

**Time: 3 Hrs**

**Max.Marks: 75**

### **Unit I**

#### **Introduction to Basics of Internet:**

Concepts of Internet : Domain, IP Addressing, Resolving Domain Names, Overview of TCP/IP and its Services, WWW.

### **Unit II**

#### **Designing Pages with HTML**

Introduction to HTML, Essential Tags, Deprecated Tags, Tags and Attributes, Text Styles and Text Arrangements, Text, Effects, Exposure to Various Tags (DIV, MARQUEE, NOBR, DFN, HR, LISTING, Comment, IMG), Color and Background of Web Pages, Lists and their Types, Attributes of Image Tag,

### **Unit III**

Hypertext, Hyperlink and Hypermedia, Links, Anchors and URLs, concept of navigation, Different Section of a Page and Graphics, Footnote and e-Mailing, Creating Table, Frame, Form and Style Sheet.

### **Unit IV**

#### **DHTML**

Dynamic HTML, Document Object Model, Features of DHTML, CSSP (Cascading Style Sheet Positioning) and JSSS (JavaScript assisted Style Sheet), Layers of Netscape, The ID Attribute, DHTML Events.

### **Unit V**

#### **Web Designing Tools**

Front Page Basics , Web Terminologies, Phases of Planning and Building Web Sites, The FTP, HTTP and WPP, Features, Front Page Views, Adding Pictures, Backgrounds, Links, Relating Front Page to DHTML.

#### **Text / Reference Books**

1. "HTML Black Book" – Steven Holzner – Dreamtech Press
2. "HTML, Java Script, DHTML, PERL, CGI" – Evan Bayross – BPB

## **BIT 205: Business Organization and Management**

**Time: 3 Hrs**

**Max.Marks: 75**

### **Unit I**

**Business** – Meaning and Contents, Business as a system, Business and Legal and Economic Environment, Forms of Business Organization (meaning, merits & demerits)

**Management**- Management Principles, Henry fayol’s principles of management, Taylor’s Scientific Management, Management Process, Basic Functions (in short), Meaning, Nature and Process, Role of Manager

### **Unit II**

**Organizational Behavior**- Need of Understanding human behavior in organizations, Challenges and opportunities for OB, Contributing disciplines to the field of OB Conceptual Models of OB

### **Unit III**

**Managing Personnel**- HRM- Meaning and Functions, Man Power Planning, Job Analysis and Design, Training, Career Planning & Development, Motivation, Compensation Management

### **Unit IV**

**Managing Finance**-Concept of fixed and Working Capital, Main Sources of Finance, Accounting, Meaning, Users, Budgeting- Meaning, Type of Budgets

### **Unit V**

**Managing Production**- Basic Concepts, Objectives, Elements of Productions, Planning, and Control.

**Managing Sales and Marketing**- Basic Concepts of marketing, Sales Promotions (including Salesmanship)

### **Text / Reference Books**

1. B.P. Singh & T.N. Chabbra, “Business Organisation and Management Functions”, Dhanpat Rai & Co. 2000.
2. Philip Kotler, “Marketing Management” –(9<sup>th</sup> Ed.) Prentice Hall of India.
3. Dr. S.N. Maheshwari, “Financial Management – Principles and Practice” (6<sup>th</sup> revised Ed.) S. Chand & Sons.
4. Stephen P. Robbins, “Organisational Behaviour” (8<sup>th</sup> Ed.) Prentice Hall of India.

## **BIT 206: Practical I: Visual Programming Lab**

Experiments based on the paper BIT 202 and project development for Internal Assessment.

## **BIT 207: Practical II: Web Technology Lab**

Experiments based on the paper BIT 204 and project development for Internal Assessment.