UNIVERSITY OF KOTA, KOTA
B.Sc(IT) II[nd] Year 2013

1. Courses of Study and Examination

Paper	Paper Name	Duration of exam. (hours)	Max. Marks		Total
			University Exam.	Internal Assessment	
Paper-I (BIT-201)	Computer Oriented Statistical Methods	3	75	25	100
Paper-II (BIT-202)	Client Server Technology	3	75	25	100
Paper-III (BIT-203)	Fundamentals of Operating Systems	3	75	25	100
Paper-IV (BIT-204)	Web Technology I	3	75	25	100
Paper-V (BIT-205)	Business Organization and Management	3	75	25	100
Practical-I (BIT-206)	Client Server Technology Lab	3	100	-	100
Practical-II (BIT-207)	Web Technology Lab	3	10	-	100
	TOTAL		575	125	700

BIT - 201 Computers Oriented Statistical Methods

Time:3Hrs **Max.Marks:75**

Unit 1

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

Unit 2

Application based on and 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 of fitting of regression lines (using least square method).

Unit 5

Various properties related to regression coefficients.

References:

1. Gupta S.C. Kapoor, V.K., "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. Speigel, "Statistics", Schaum Series, McGraw-Hill, 1981.

BIT - 202 Client Server Technologies

Time:3Hrs **Max.Marks:75**

Unit 1

Client/Server Computing: Evolution of client/server concept, definition, history, need and motivation for client/server approach, client/server approach, Client / server types and its examples.

Unit 2

Client/server development tools, advantages of client/server technology connectivity, user productivity reduction in network traffic, faster delivery of system.

Unit 3

The Role of Client - Client request for service, dynamic data exchange, OLE, Common Object Request Broker Architecture (CORBA), Components of client/server application.
The Role of Server - Server function, network operating system: Novel Netware, LAN Manager, Server Operating System Application Architecture.

Unit 4

Architecture : Components of client-server architecture, application partitioning, the two layer and three-layer architectures, communication between clients and servers, use of APIs in client/server computing, middleware technology in client/server computing. Open System Interconnectivity (OSI), Inter Process Communication (IPC).

Unit 5

Client/Server System Development Network Management. Remote System Administration. LAN Network Management, Security Issue, Developing application on RDMS, GII design concepts.

References:

1. Robert Orfali, Dar Harkey and J.Edwards : the Essential Client/Server Survival Guide : Galgotia, 2001.
2. Beth Gold Bernstien and david Marea Designing Enterprise Client/Server System, PHI, 1998.
3. Devire and Drawna, "Client/Server Computing", McGraw Hill 1993.
4. Thomas S. Ligon, "Client-Server Communication "McGraw Hill 1997.
5. Berson : Client/Server Architecture, Architecture, 2nd Edition, Mc-Graw Hill.

BIT 203: Fundamentals of Operating Systems

Time:3Hrs **Max.Marks:75**

Unit I

Introduction: What is an operating system? Mainframe, desktop, multiprocessor, distributed, clustered, real-time and handheld systems.

Unit II

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

Process: Process concept, process scheduling, operations on processes, cooperating processes. Inter process communication.

Unit III

CPU Scheduling: Basic concepts, scheduling 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.

Suggested Book

1. Silberschatz G.G., Operating System Concepts, John Wiley & Sons Inc.

BIT 204: Web Technology I

Time:3Hrs **Max.Marks:75**

Unit I

Introduction to Internet Basic

The Basic of the Internet, Concepts of 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, Links to External Documents, 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

Front Page

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.

Books Suggested

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:3Hrs **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)

Suggested Books

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

BIT 206: Practical I: Client Server Technology Lab

Experiments based on the paper BIT 202.

BIT 207: Practical II: Web Technology Lab

Experiments based on the paper BIT 204.