IT 601 FINANCIAL MANAGEMENT AND E-BANKING

MODULE I The basic concepts of Accounting: The separation of ownership and control, The users of accounts, Computers and users of accounts, Accounting concepts and conventions, Accounting equation, Balance sheet, Classifying items, The processing function. Book-Keeping: The double-entry system, Double-entry of expenses, Asset of stock, Capital and revenue expenditure, Balancing accounts on computers, The trial balance, The final accounts, Depreciation, Bad debts and provision for bad debts, Division of the ledger, Books of original entry, Source documents, Accounting systems, Interpretation of accounts.

MODULE II Costing: Cost Accounting, Classifying costs, The implications for programming, The operating statement, the cost of raw materials, the cost of direct labour, the cost of overheads, job costing, Break-even analysis, Break-even graphs, Budgeting, Standard costing, Variance analysis, Marginal costing. Ratio Analysis: Ratio meaning, profitability ratios, profit in relation to sales, profit in relation to investments, Liquid ratios, Solvency ratios, other ratios, Activity ratios, Eps, DuPont Financial analysis, ratios for predicating bankruptcy, Inter-fim comparison, ratios limitations.

MODULE III Fund Flow Statement: Meaning, Importance, Definition of terms, Funds and Flow, Sources and use of funds, Changes in working capital, Preparation of funds flow statements, cash flow statements, Sources and uses, preparation. Cost Reduction: Difference between cost control and cost reduction, Prequisites for an effective cost reduction, Concept of value analysis- crux of the cost reduction, steps involved in introducing a cost reduction program, some examples of cost reduction, Common limitations.

in Online Banking, Marketing Issues: Attracting Customers, Keeping Customers, Back-Office Support for Online Banking, Integrating Telephone Call Centers with the Web.

REFERENCES
1. Nand Dharmeja & K.S. Sastry Finance & Accounting for ,Managerial Competiveness Weeler Publishing, Allahabad

Type of questions for University Examination

Question 1 - 8 short answer questions of 5 marks each. 2 questions from one module

Question 2-5 – There will be two choices from each module .Answer one question from each module of 15 marks
IT 602 INTERNET PROGRAMMING

Module I
Introduction to Web Programming, XML: Creating XML documents, Parsing an XML document, Writing well – formed Documents, Organizing elements with Namespaces, Defining elements in a DTD, Declaring Elements and Attributes in a DTD.

Module II
CGI/Perl: Creating link to a CGI script, Using a link to send data to a CGI script, Parsing data sent to a Perl CGI script, Using CGI script to process form data, Using Scalar variables in Perl, Using arithmetic operators in Perl, Associating a Form with a Script.

Module III
Event driven programming using Java applets, JavaServer Pages: JSP Scripting elements, Linking to external files, JSP declarations, JSP Expressions, JSP Scriplets, Processing client requests, JavaBeans: Accessing and setting Bean properties, JavaBean scope, Accessing a database from JSP

Module IV
PHP: Defining PHP variables, Variable types, operators, control flow constructs in PHP, Establishing connection with MYSQL database, managing system data, Passing data between pages.

TEXT BOOKS:

REFERENCE:
2. Kalata, Internet Programming with VBScript and JavaScript, Thomson Learning
3. Mohler, Designing Interactive Websites, Thomson Learning
4. Elliotte Rusty Harold, " XML bible", IDG Books
5. Ash Rofail; Tony Martin, "Building N-Tier Applications with COM and Visual Basic 6.0", John Wiley & Sons, Inc

Type of questions for University Examination
Question 1 - 8 short answer questions of 5 marks each. 2 questions from one module
Question 2-5 – There will be two choices from each module. Answer one question from each module of 15 marks
CS/IT 603 OPERATING SYSTEMS

Module I

Module II

Module III
File systems and I/O files. Directories - File system implementation - security and protection mechanisms.
I/O Buffering - RAID- Disk Cache.

Module IV
Case Study: UNIX / LINUX operating system

Text Book

Reference

Type of questions for University Examination
Question 1 - 8 short answer questions of 5 marks each. 2 questions from one module
Question 2-5 – There will be two choices from each module .Answer one question from each module of 15 marks
CS/IT 604 ANALYSIS AND DESIGN OF ALGORITHMS

Module 1

Module 2

Module 3

Module 4

Text Books:

References:
1. Anany Levitin, "Introduction to the design and analysis of algorithms", Pearson Education

Type of questions for University Examination
Question 1 - 8 short answer questions of 5 marks each. 2 questions from one module
Question 2-5 – There will be two choices from each module. Answer one question from each module of 15 marks
IT 605 OBJECT ORIENTED MODELLING AND DESIGN

Module I
Introduction to UML and Unified Process. Use case modeling: Actors and Use cases, Use case specification, Actor generalization, Use case generalization. Objects and classes, Relationships, Inheritance and Polymorphism, Packages.

Module II

Module III
Design: Design workflow, well-formed design classes, Refining analysis relationships. Interfaces and components. State machine diagrams, Composite states, submachine states.

Module IV
Implementation workflow, Deployment, Introduction to OCL: Why OCL? OCL expression syntax, Types of OCL expressions. Introduction to Software Architecture, Architecture description language (ADL)

Text Book:

Reference:
3. Bruegge, Object Oriented Software Engineering using UML patterns and Java, Pearson Education
4. James Rambaugh et. al., Object Oriented Modelling and Design – PHI
6. DeLillo, Object Oriented Design in C++, Thomson Learning

Type of questions for University Examination
Question 1 – 8 short answer questions of 5 marks each. 2 questions from one module
Question 2-5 – There will be two choices from each module. Answer one question from each module of 15 marks
CS/IT 606 COMPUTER NETWORKS

Module 1
Evolution of Computer Networks

Application Layer
Application layer protocols:-WWW and HTTP, FTP, DNS, SMTP, SNMP, RPC, P2P File sharing, Domain Name system (DNS)

Module 2
Transport layer and Network Layer
Transport Layer Services, Relationship with Network Layer, Relationship with Application Layer, Multiplexing and De multiplexing, UDP, TCP: Header ,Segment Structure, Services, Connection establishment and termination, Flow control and window size advertising, TCP time out and re-transmission, Congestion Control, TCP Fairness, Delay Modeling.
Network layer Services, Datagram and Virtual circuit services, IP datagram format and Types of Services, Datagram encapsulation and Fragmentation, Reassembly and fragmentation

Module 3
Routing and Datalink Layer
Routing: Link state routing, distant vector routing, hierarchical routing, multicast routing, Data link layer services: Error detect and correction techniques, Elementary Data link layer protocols, sliding window protocols, HDLC ,Multiple access protocols, TDM, FDM, CDMA Random access protocols: ALOHA, CSMA,CSMA/CD,CSMA/CA. Circuit and Packet Switching, Virtual Circuits, Switching Technology for LAN, Ethernet switches, Virtual LAN

Module 4
Physical Layer, High speed Networks and Network programming
Physical Layer services, Transmission media, Data encoding schemes. ISDN, BISDN, Frame relay, Fast Ethernet and Gigabit Ethernet, FDDI, SONET .NETBIOS programming, TCT/IP and Socket programming. Network Performance: Analytical Approaches-Network Traffic Monitoring-simulations

Text Book:
1. Youlu Zheng and Shakil Akhtar, Networks for Computer Scientist and Engineers, Oxford University Press,2006

References:
1. Larry L Peterson & Bruce S Dave, Computer Networks, 3rd Edn, Elsevier
3. F. Halsall, Data Communication, Computer Networks and Open Systems, Addison Wesley, 1996
5. Behrouz A. Fourouzan ,Data Communications and Networking, 2/e Tat McGrawhill,2000
7. Bertsekas and Gallagar , Data Networks, 2/e, PHI, 1992
8. Douglas E Comer ,Computer Networks and Internet’s, 2/e Pearson Education,2004

Type of questions for University Examination
Question 1  -  8 short answer questions of 5 marks each. 2 questions from one module
Question 2-5 – There will be two choices from each module .Answer one question from each module of 15 marks
IT 607 COMPUTER GRAPHICS LAB

This lab exercises are to be done in JAVA language

1. Program to draw line using Bresenham’s algorithm for all quadrants.
2. Program to draw a circle.
3. Program to draw an ellipse.
4. Program to draw a spiral using Bresenham’s circle drawing algorithm.
5. Procedure to move a line around the circle.
6. Procedure to rotate a wheel.
7. Procedure to translate a circle.
8. Program to show 2D clipping and windowing.
10. Segmentation.

Note: 50% Marks is earmarked for continuous evaluation and 50% marks for end semester examination to be assessed by two examiners. A candidate shall secure a minimum of 50% marks separately for the two components to be eligible for a pass in that subject.
IT 608 MINI PROJECT – INTERNET BASED

Design and development of an online web oriented commercial site.
Concepts: Server side scripting through ASP or JSP or PHP, Client side scripting through Java Script or VBScript, Web servers like IBM Web Sphere or Tomcat or IIS or Apache, Web Application development framework using IBM Web sphere studio or PHP Triad or Visual studio .Net, Web concepts to mobile devices using WML, WAP, XML.
Students can do any of the following sample projects or similar ones:

1. Online auction management system
2. Online ticket reservation system
3. Online banking
4. Online academic softwares like Tutors, Admission, Examination etc.
5. Mobile programming using web services. Here a web service can be a cricket score, weather forecast, railway timing and so on.
6. News aggregators
7. Download managers
8. Email software
9. Mobile – Website communication using SMS
10. Online file repositories.

Each batch comprising of 3 to 5 students shall design. Each student shall submit a project report at the end of the semester. The project report should contain the design and engineering documentation including the Bill of Materials and test results. Product has to be demonstrated for its full design specifications. Innovative design concepts, reliability considerations and aesthetics / ergonomic aspects taken care of in the project shall be given due weight.

Guidelines for evaluation:

i) Attendance and Regularity 10

ii) Work knowledge and Involvement 30

iii) End-Semester presentation & Oral examination 20

iv) Level of completion and demonstration of functionality/specifications 25

v) Project Report 15

Total 100 marks

Note: External projects and R&D projects need not be encouraged at this level. Points (i) & (ii) to be evaluated by the project guide & co-ordinator and the rest by the final evaluation team comprising of 3 teachers including the project guide.
Fairway Financial Management. Investment management company in Ridgeland, Mississippi. About fairway financial management. Our Story. We serve our clients with a consultative, team-based approach that examines all aspects of their fin... +1 601-790-9567. Contact Fairway Financial Management on Messenger. www.fairwayfinancialmanagement.com. Investment management company • Insurance company. The Farese Group. Financial service. Bank of England Mortgage - Mississippi. Loan service. Edible Arrangements (147 Market Street, Flowood, MS). Course management: The entire course would comprise of the following modules, detail of the topics covered under these modules is also given hereunder: Module 1 It would cover the following topics: Course Management Introduction to legal system of Pakistan Introduction to Banking Laws. Module 2 Financial system and banking: it would cover the following topics/contents: Financial institutions Financial markets & Financial instruments Evolution of Banking: it would cover in detail the following topics/contents: Historical background Nationalization of banks The (banks nationalizati... © Copyright Virtual University of Pakistan. Banking Laws and Practices-BNK 601.