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Tamil University Thanjavur
Directorate of Distance Education
PG Diploma in WEB SERVICES

Scheme of Examinations (Non-Semester Pattern) - 1 Year Duration.

Paper	Subject	Internal Marks	External Marks	Total Marks
Paper I	Web Designing	25	75	100
Paper II	Web services	25	75	100
Paper III	Advanced Java Programming	25	75	100
Paper IV	Lab: Advanced Java Programming Lab	25	75	100
Paper V	Project and Viva-Voce	25	75	100

Eligibility : Any Degree recognised by UGC.

Internal Marks 25 is based on Assignment

External mark 75 is based on University Examination

Minimum pass marks Internal-10, External-35, The total Mark of Internal and External is Minimum-50 is pass marks.

Question patterns :

Sec-A 10x2=20 marks

Sec-B 5x5=25 marks

Sec-C 3x10=30 marks

Board of Studies Members

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Paper I - WEB DESIGNING

Subject Description

This Course presents the basics of Web designing.

Goals:

To enable the students to learn the Programming Languages for Web designing

Objectives:

On successful completion of the course the students should have:

- Understood the fundamentals of Web design and how to program using ASP and XML.

UNIT I

Basics of Web Technology: Web page creation- Scripting Language - HTMLTags - VBScript- JavaScript- Looping -Array handling -Functions and Procedures -Object creation - Validating Form Elements;

UNIT II

ASP : Active Server Pages- Server Side Scripting- Servers : IIS, PWS _ ASP Objects – Request- Response- Session- Server- Application objects- global.asa file -Cookies - External & Internal cookies.

UNIT III

ASP Components - Ad Rotator- Context Rotator- Browser Capability- Page counter - Server objects- Database connectivity - DSN -Retrieving information from table - Manipulating records in tables. Implementation of ASP concepts in .NET environment.

UNIT IV

XML :XML essentials - XML Documents - Valid Documents- Entities and attributes - Cascade Style Sheets - XML Scheme - Handling XML Documents and Data Binding.

UNIT V

XML DOM - XSL Transformations - XSL Formatting Objects - XML and ASPXML and Servlets - XML and Perl- WML

REFERENCE BOOKS:

1. Steven Holzner – “Inside XML “, 2000 Edition, Techmedia Publishers.
2. “Unleashed ASP”- Techmedia Publisher.
3. “Interactive VBScript” – Techmedia Publishers.

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Paper II - WEB SERVICES

Subject Description

This Course presents the Web Services Provided.

Goal

To enable the students to learn what is web service and Protocols used for Web services

Objective

On successful completion of the course the students should have:

- Understood how to build the real world applications using Web Services.

Contents

Unit I

Introduction to Web Services – Industry standards, Technologies and Concepts underlying Web Services – their support to Web Services, Applications that consume Web Services.

Unit II

XML – its choice for Web Services – Network protocols to backend databases – Technologies – SOAP, WSDL – exchange of information between applications in distributed environment – Locating remote Web Services – its access and usage, UDDI Specification – an introduction.

Unit III

A brief outline of Web Services – Conversation – static and interactive aspects of system interface and its implementation, Work Flow – Orchestration and refinement, Transactions, Security issues – the Common attacks – security attacks facilitated within Web services Quality of Services – Architecting of systems to meet users requirement with respect to latency, performance, reliability, QOS metrics, Mobile and wireless Services – energy consumption, network bandwidth utilization, Portals and Services Management.

Unit – IV

Building real world Enterprise applications using Web Services – sample source codes to develop Web Services – Steps necessary to build and deploy Web Services and Client applications to meet Customer's requirement – Easier development, Customisation, maintenance, Transactional requirements, seamless porting to multiple devices and platforms.

Unit – V

Development of Web Services and applications onto Tomcat application Server and Axis SOAP server (both are freewares) – Web Services Platform as a set of Enabling technologies for XML based distributed Computing.

REFERENCE BOOKS

1. Sandeep Chatterjee, James Webber, "Developing Enterprise Web Services: An Architects Guide" Prentice Hall, Nov 2003
2. Keith Ballinger, "NET Web services: Architecture and Implementation with .Net", Pearson Education, First Education Feb 2003.
3. Ramesh Nagappan, Developing Java Web Services: Architecting and developing secure Web Services Using Java", John Wiley and Sons, first Edition Feb 2003
4. Eric A Marks and Mark J Werrell, "Executive Guide to Web services", John Wiley and sons, March 2003
5. Anne Thomas Manes, "Web Services: A managers Guide" Addison Wesley, June 2003.

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Paper III. Advanced Java Programming

Unit-I

JAVA Evolution:History-Features-How Java differs from C and C++-Java and Internet-Java and WWW-Web Browsers-Overview of Java Languages:Introduction-Simple Java Program-Structure-Java Tokens-Statements-Java Virtual Machines.

Unit-II

Constants-Variables-Data types-Operators and Expressions,Decision making and Branching:If,if..else,else..if ladder,switch,?Operator decision making and looping:while,do,for-Jumps in loops-Labelled loops,classes,objects and methods.

Unit-III

Arrays,Strings and Vectors-Interfaces:Multiple Inheritance-Packages:Putting classes together-Multi threaded Programming

Unit-IV

Managing Errors and Exceptions-Applet Programming-Graphics Programming.

Unit-V

Files:Introduction-concept of streams-stream classes-using streams-I/O classes-File class-I/O Exceptions-Creation of files-Reading/Writing characters/Bytes-Handling Primitives data types-Random Access files.

Text Book

I.E.Balagurusamy,"Programming with Java-A primer",TMH Publications,2nd edition,2000

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Paper IV. Advanced Java Programming Lab

Java Program Lists

1. Write a Java Program with Multiple classes
2. Write a Java Program Reading Data from Keyboard
3. Write a Java Program Drawing Lines and Rectangles
4. Write a Java Program try and catch for Exception Handling
5. Write a Java Program using Multiple Statements
6. Write a Java Program for Screen Display

Web Designing Program Lists

1. Design a Web Page for Your Department using HTML.
2. Design a New web page using HTML Tags.
3. Design a Web page for Company using HTML.
4. Design A web page Payroll processing system.

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▲ Paper V: Project and Viva-Voce

Project Guide is allotted for Computer Science Dept staff.

Students select Project topic and done a Project based on Project Guidance.

Tamil University is conducting Project Viva-Voce Examination after the submission Project.