

PG DEPARTMENT OF COMPUTER SCIENCE				CLASS: I M.Sc. Computer Science				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Elective - 2	21P2DME2(F)	WAP and XML	4	5	25	75	100

Nature of Course			
Knowledge and skill	✓		Employability oriented
Skill oriented			Entrepreneurship oriented

Course Objectives

1. To understand the concept of WAP.
2. To learn about the functionality of WAP gateways.
3. To acquire knowledge and skills for creating WML.
4. To understand the concept of style sheet in Document Display.
5. To learn the concept of XSL, Non Roman Scripts and Unicode.

Unit	Content	Hrs	K-Level	CLO
I	Overview of WAP : WAP and the wireless world – WAP application architecture – WAP internal structure – WAP versus the Web – WAP 1.2 – WTA and push features. Setting up WAP: Available software products – WAP resources – The Development Toolkits.	15	Up to K2	1
II	WAP gateways: Definition – Functionality of a WAP gateway – The Web model versus the WAP model – Positioning of a WAP gateway in the network – Selecting a WAP gateway Basic WML: Extensible mark up language – WML structure – A basic WML card – Text formatting – navigation – Advanced display features.	15	Up to K3	2
III	Interacting with the user: Making a selection – Events – Variables – Input and parameter passing. WML Script: Need for WML script – Lexical Structure – Variables and literals – Operators – Automatic data type conversion – Control Constructs Functions – Using the standard libraries – programs – Dealing with Errors.	15	Up to K4	3
IV	XML: Introduction XML: An Eagle’s Eye view of XML – XML Definition – List of an XML Document – Related Technologies – An introduction to XML Applications – XML Applications – XML for XML – First XML Documents Structuring Data: Examining the Data XMLizing the data – The advantages of the XML format – Preparing a style sheet for Document Display.	15	Up to K3	4
V	Attributes, Empty Tags and XSL: Attributes – Attributes Versus Elements – Empty Tags – XSL – Well formed XML documents – Foreign Languages and Non Roman Text – Non Roman Scripts on the Web Scripts, Character sets, Fonts and Glyphs – Legacy character sets– The Unicode Character set – Procedure to Write XML Unicode.	15	Up to K4	5

Books for Study

1. “Professional WAP with WML, WML script, ASP, JSP,XML, XSLT, WTA Push and Voice XML” by Charles Arehart and Others, Shroff Publishers and Distributers Pvt. Ltd 2000.
2. “XML TM Bible” by Eliotte Rusty Harlod, Books India (P) Ltd, 2000

Chapters

UNIT - 1: 1,2 [Text Book 1]

UNIT - 2: 3,4 [Text Book 1]

UNIT - 3: 5,6 [Text Book 1]

UNIT - 4: 1,2,3,4 [Text Book 2]

UNIT - 5:5,6,7 [Text Book 2]

Books for Reference

- 1) “XML: The Complete Reference“ by Heather Williamson, Tata McGraw-Hill Education India.
- 2) HTML 5 Black Book, Covers CSS 3, JavaScript, XML, XHTML, AJAX, PHP and jQuery, 2nd Edition, DreamTech Press.
- 3) Web Design with XML: Generating Web Pages with XML ,CSS, XSLT and Formatting Objects by Manfred Knobloch, 1st Edition.

Web Resources

1. https://www.tutorialspoint.com/wap/wap_wml_syntax.htm
2. https://ebooks.lpude.in/computer_application/msc_it/term_4/DCAP512_WAP_AND_WML.pdf
3. <http://www.inf.unibz.it/~ricci/MS/slides-2009/11-WAP.pdf>

Rationale for Nature of the course

- Helps to develop website as the need for the web sites are increasing.

Activities on Knowledge and Skill

- Creating Mini Projects
- Quiz
- Seminar

Activities on Employability Oriented

- Website development
- Data Analysis

Pedagogy

Chalk and talk, Materials, PPT, Assignment, Seminar, Group Discussion and Interaction.

Course Designer(s) Name

1. Mrs. R.Tamil Selvi
2. Mr. N. Radha Krishnan

Lesson Plan

UNIT	Topics to be covered	Hours	Mode
I	WAP and the wireless world. Setting up WAP.	7 8	Lecture, GD Lecture, PPT
II	Functionality of a WAP gateway. Selecting a WAP gateway Basic WML	7 8	Lecture Lecture, quiz
III	Making a selection – Events – Variables – Input and parameter passing. WML Script.	7 8	Lecture Lecture
IV	Introduction XML First XML Documents Structuring Data.	8 7	Lecture, PPT Lecture
V	Attributes – Attributes Versus Elements. Legacy character sets– The Unicode Character set – Procedure to Write XML Unicode.	7 8	Lecture, Seminar Lecture, Assignment

Course Learning Outcomes

On the completion of the course, the students will be able to

CLOs	COURSE LEARNING OUTCOMES	K - Level
CLO 1	Understand the basics of WAP architecture	Up to K2
CLO 2	Identify the usage of WAP gate ways.	Up to K3
CLO 3	Apply WML concepts to develop Web application.	Up to K4
CLO 4	Develop the interactive real time applications.	Up to K3
CLO 5	Design web sites using XSL Style Sheets.	Up to K4

Mapping of CLOs with POs

CLOs/ POs	PO1	PO2	PO3	PO4	PO5	PO6
CLO 1	2	2	1	2	1	-
CLO 2	2	2	1	2	1	-
CLO 3	2	2	1	2	1	-
CLO 4	2	2	1	2	1	-
CLO 5	2	2	1	2	2	-

(3 –Advanced Application, 2 – Intermediate Level, 1- Basic Level)

Continuous Internal Assessment (CIA): 25 Marks

Components	Marks	K Level
Test (Average of two tests) (Conducted for 40 marks and converted into 10 marks)	10	(Refer Next Table)
Assignment	5	K4
Seminar	5	K4
Quiz	5	K4
Total	25	

Learning Outcome Based Education & Assessment (LOBE)

Formative - Blue Print – Model for WAP and XML

Articulation Mapping – K Levels with Courses Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B (Either/or Choice)	Section C (Open Choice)
			Short Answers			
			No. of Questions	K- Level		
CIA I	CLO 1	Up to K2	2	K1	2(K1&K1)	2(K2)
	CLO 2	Up to K3	3	K1	2(K2&K2)	1(K3)
CIA II	CLO 3	Up to K4	2	K3	2(K4&K4)	2(K4)
	CLO 4	Up to K3	3	K2	2(K3&K3)	1(K3)
Question Pattern (CIA I & II)	No. of Questions to be asked		5		4	3
	No. of Questions to be answered		5		2	2
	Marks for each question		2		5	10
	Total Marks for each section		10		10	20

- CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Either/or)	Section C (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	10	10	-	20	33.33	83
K2	-	10	20	30	50	
K3	-	-	10	10	16.67	17
K4	-	-	-	-		
Total Marks	10	20	30	60	100	100

K Levels	Section A (No Choice)	Section B (Either/or)	Section C (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	-	-	-	-	-	10
K2	6	-	-	6	10	
K3	4	10	10	24	40	40
K4	-	10	20	30	50	50
Total Marks	10	20	30	60	100	100

Learning Outcome Based Education & Assessment (LOBE)

Summative - Blue Print – Model for WAP and XML

Articulation Mapping – K Levels with Courses Learning Outcomes (CLOs)

S.No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No of Questions	K - Level	No of Questions	K - Level		
1	CLO 1	Up to K2	2	K1 & K1	1	K1	2(K1&K1)	1(K2)
2	CLO 2	Up to K3	2	K2 & K3	1	K1	2(K2&K2)	1(K3)
3	CLO 3	Up to K4	2	K2 & K4	1	K3	2(K4&K4)	1(K4)
4	CLO 4	Up to K3	2	K3 & K3	1	K2	2(K3&K3)	1(K3)
5	CLO 5	Up to K4	2	K3 & K4	1	K2	2(K4&K4)	1(K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

- K1 – Remembering and recalling facts with specific answers
- K2 – Basic understanding of facts and stating main ideas with general answers
- K3 – Application oriented – Solving Problems
- K4 – Examining, analyzing, presentation and make inferences with evidences

Distribution of Section – wise Marks with K Levels K Levels	Section A (No Choice)	Section B (No choice)	Section C (Either/or)	Section D (Open choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	4	10	-	16	13.33	13%
K2	2	4	10	10	26	21.67	22%
K3	4	2	10	20	36	30.00	30%
K4	2	-	20	20	42	35.00	35%
Total Marks	10	10	50	50	120	100	100%