Enrollment No......................................

Faculty of Engineering
End Sem Examination May-2024
CS3EL16 Programming With XML
Programme: B.Tech.   Branch/Specialisation: CSE All

Duration: 3 Hrs.   **Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

Q.1 i. XML is designed to _____ and _____ data.   **1**
(a) Design, style   (b) Design, send
(c) Store, style   (d) Store, transport

ii. Which of the following is the correct way to declare an XML version **1** and encoding?
(a) <?xml version="1.0" encoding="UTF-8"?>
(b) <xml version=1.0 encoding=UTF-8>
(c) {xml version:"1.0", encoding:"UTF-8"}
(d) xml(version=1.0, encoding=UTF-8)

iii. What does DTD stand for?   **1**
(a) Document Type Definition
(b) Document Transformation Description
(c) Document Text Declaration
(d) Document Type Description

iv. Which of the following is not a valid DTD element?   **1**
(a) <!ELEMENT>   (b) <!ATTLIST>
(c) <!DOCTYPE>   (d) <!ENTITY>

v. XML Schema is commonly known as-   **1**
(a) XZD   (b) XAS   (c) XSD   (d) XFD

vi. A schema describes-   **1**
(a) Structure   (b) Datatype of XML document
(c) Grammer   (d) All of these

vii. Which of the following is not a valid XPath expression?   **1**
(a) /bookstore/book[author='John Doe']
(b) //bookstore/book[price>20]
(c) /bookstore/book[author!='John Doe']
(d) /bookstore/book[price<20]

viii. Which of the following is true about XSLT templates? **1**
(a) They are used to transform an XML document into an HTML document
(b) They are used to specify the structure of an XML document
(c) They are used to apply a set of rules to a selected node or nodes
(d) They are used to validate an XML document against a schema

ix. In an XML document, a graphics can be stirred using the _____. **1**
(a) XLink   (b) XPointer
(c) Both (a) and (b)   (d) None of these

x. Which cloud service model is most suitable for developers who want to focus solely on writing code without managing underline infrastructure? **1**
(a) Infrastructure as a service (b) Platform as a service
(c) Software as a service   (d) Function as a service

Q.2 i. What is XML? Explain in brief. **2**

ii. Write any three differences between the HTML & XML. **3**

iii. How you create notebook with the help of XML? (Explain with Syntax code). **5**

OR iv. Explain XML tools and XML validation with example. **5**

Q.3 i. Explain DTD (Document Type Definition) in brief. **2**

ii. Define all four XML concept with the help of example- **8**
(a) Element with children   (b) Empty elements
(c) Number of occurrences   (d) Defining choices

OR iii. Explain internal and external DTD'S and also write difference between them. (At least four) **8**

Q.4 i. Write down schema definition with the help of example. **3**

ii. How to link and validate XML with schema? **7**

OR iii. Explain the attributes in XML & restriction on values with the help of example. **7**

Q.5 i. Describe the linking with XSL to your XML sources with the help of example. **4**

ii. Define the following with example: **6**
(a) xsl:output   (b) xsl:template
(c) xsl:apply-templates

OR iii. Create a XSLT for notebook and XML file and generate output in different conditions. **6**

Q.6 Attempt any two:
i. What is XPath & Using XPath to navigate an XML document? **5**
ii. What are the main features of Xpath? (Any five) **5**
iii. What are the different types of operators in XPath? Explain each one with example (Any five). **5**

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Marking Scheme

CS3EL16 (T) Programming With XML

Q.1	i)	D		1
	ii)	A		1
	iii)	A		1
	iv)	C		1
	v)	C		1
	vi)	D		1
	vii)	B		1
	viii)	C		1
	ix)	C		1
	x)	B		1

Q.2 i. What Is XML explain in brief? **2**
Definition -2 mark

ii. Write down the difference between the HTML & XML?(Any three) **3**
Each difference 1 -1*3=3 mark

iii. How you create notebook with the help of XML?(Explain with Syntax code). **5**
Syntax code with explanation -5 mark

OR iv. Explain XML Tools and XML Validation with example? **5**
XML Tools -2.5 mark
XML Validations - 2.5 mark

Q.3 i. Explain DTD(Document Type Definition) in brief? **2**
Defination -2 mark

ii. Define all four XML concept with the help of example? **8**
a) Element with children.
b) Empty Elements.
c)Number of occurrences.
d)Defining choices.

Each concept 2mark -2*4=8mark

OR iii. Explain Internal and external DTD'S and also write difference between them (atleast four)? **8**
Internal DTD - 2 mark
External DTD -2 mark
Each difference 1 mark -1*4=4 mark

Q.4 i. Write down Schema definition with the help of example? **3**
Definition -2 mark
Example -1 mark

ii. How to link and validate XML with Schema? **7**
XML link -3.5 mark
XML Validate -3.5 mark

OR iii. Explain what are the Attributes in XML & Restriction on values with the help of example? **7**
Attributes in XML - 3.5 mark
Restriction on Values - 3.5 mark

Q.5 i. Describe the linking with XSL to your XML Sources with the Help of example? **4**
Introduction -2 mark
Description code with example - 2 mark

ii. Define the Following with example: - **6**
a) xsl:output.
b) xsl:template .
c)xsl:apply-templates.

Explanation of each 2 -2*3=6 mark

OR iii. Create a XSLT for notebook and XML file and generate output in different conditions? **6**
Xslt Notebook -3 mark
XML File -3 mark

Q.6 i. What is XPath & Using XPath to navigate an XML document? **5**
XPath - 2 mark
XPath Navigation - 3 mark

ii. What Are the main features of Xpath?(Any Five) **5**
Each feature 1 -1*5=5 mark

OR iii. What are the different types of operators in XPath,explain each one with example(any Five)? **5**
Each operator 1 - 1*5=5 mark

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