Total No. of Questions: 6   Total No. of Printed Pages:2

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

Faculty of Engineering
End Sem Examination May-2023
CS3EL08 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.   What is the correct syntax of the declaration which defines the XML   1
          version?
          (a) <xml version="A.0" />   (b) <?xml version="A.0"?>
          (c) <?xml version="A.0" />   (d) None of these
     ii. An entity in XML is a _____.   1
          (a) Class   (b) Logical information
          (c) Simple information   (d) Flexible information storage unit
     iii. DTD includes the specifications about the mark-up that can be used   1
          within the document, the specifications consist of all EXCEPT-
          (a) The browser name   (b) The size of element name
          (c) Entity declarations   (d) Element declarations
     iv. Attribute standalone="no" should be included in XML declaration if a 1
          document-
          (a) Is linked to an external XSL stylesheet
          (b) Has external general references
          (c) Has processing instructions
          (d) Has an external DTD
     v.   In simple type built into XML schema type flat has single precision of 1
          _____ floating point
          (a) 16-bit   (b) 32-bit   (c) 8-bit   (d) 4-bit
     vi. To create a choice in XML schemas, we use the-   1
          (a) <xsd:select> element   (b) <xsd:multi> element
          (c) <xsd:choice> element   (d) <xsd:single> element
     vii. The XSL formatting object use to format a list is-   1
          (a) List-block (b) List-item (c) List-item-body   (d) List-item-label
          P.T.O.

     viii. XSL has formatting object "block"-   1
           (a) Is not supported in XSL
           (b) Generates a block level reference area
           (c) Create a display block
           (d) Groups global declarations for a style sheet
     ix.   Which of these are built on XPath expressions?   1
           (a) XLink and XPointer   (b) XQuery and XPath
           (c) XQuery and XPointer   (d) XQuery and XLink
     x.   Which of these are not valid path expressions of XPath?   1
           (a) /   (b) //   (c) @   (d) $

Q.2 i.   Define Structure of XML.   2
     ii. Define element and attribute in an XML document with example.   3
     iii. What are the benefits of XML? Explain the basic rules to write XML   5
          document.
OR   iv. Describe the differences between XML and HTML.   5

Q.3   Attempt any two:
     i.   Explain the creation of external DTD with example.   5
     ii. Explain briefly DTD.   5
     iii. Write the pros and cons of using DTD.   5

Q.4 i.   What are the benefits of using XML Schema?   2
     ii. Enlist the datatypes in an XML schema. Define the terms attributes, 8
          restrictions in XML schema with example.
OR   iii. Explain briefly XML Schema with the help of any example.   8

Q.5 i.   Write any three differences between XSLT and CSS.   3
     ii. How to transform an XML file into html using XSL transformation   7
          (XSLT)?
OR   iii. What is identity template in XSL? Why do you use it? Explain with   7
          example.

Q.6 i.   Enlist the any four features of XPath.   4
     ii. Explain different types of operators in XPath with example.   6
OR   iii. Enlist the types of nodes in XPath. How to define relationship among 6
          nodes?

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Marking Scheme
CS3EL08 [T] Programming with XML

Q.1   i.   What is the correct syntax of the declaration which defines the XML version?   **1**
A. <xml version="A.0" />   B. <?xml version="A.0"?>
C. <?xml version="A.0" />   D. None of the above
Ans: B (<?xml version="A.0"?>)

ii.   An entity in XML is a ……………………   **1**
A) class   B) logical information
C) simple information   D) flexible information storage unit
Ans: D (flexible information storage unit)

iii.   DTD includes the specifications about the mark-up that can be used within the document, the specifications consists of all EXCEPT   **1**
A. the browser name   B. the size of element name
C. entity declarations   D. element declarations
Ans: A (the browser name)

iv.   Attribute standalone="no" should be included in XML declaration if a document: **1**
A. is linked to an external XSL stylesheet
B. has external general references
C. has processing instructions
D. has an external DTD
Ans: D (has an external DTD)

v.   In simple type built into XML schema type flat has single precision of _____ floating point   **1**
A. 16-bit   B. 32-bit   C. 8-bit   D. 4-bit
Ans: C (8-bit)

vi.   To create a choise in XML schemas, we use the   **1**
A. <xsd:select> element   B. <xsd:multi> element
C. <xsd:choise> element   D. <xsd:single> element
Ans: C (<xsd:choise> element)

vii.   The XSL formating object use to format a list is   **1**
A. list-block   B. list-item   C. list-item-body   D. list-item-label
Ans: A (list-block)

viii.   XSL has formatting object "block"   **1**
A. is not supported in XSL
B. generates a block level reference area
C. create a display block
D. groups global declarations for a style sheet
Ans: B (generates a block level reference area)

ix.   Which of these are built on XPath expressions?   **1**
A. XLink and XPointer
B. XQuery and XPath
C. XQuery and XPointer
D. XQuery and XLink
Ans: C (XQuery and XPointer)

x.   Which of these are not valid path expressions of XPath?   **1**
A. /   B. //   C. @   D. $
Ans: D ($)

Q.2   i.   Define 2 Marks   **2**
ii.   Element & Attributes (1.5 each)   **3**
iii.   2 Marks benefits ,3 marks Rules   **5**
OR   iv.   One Marks Each   **5**

Q.3   i.   Explain (2 Marks) Example 3 Marks   **2**
ii.   Define   **5**
OR   iii.   (2.5 pros) (2.5 corns)   **5**

Q.4   i.   2 benefits one marks each   **2**
ii.   5 Marks datatype 3 marks   **8**
OR   iii.   3 Marks Schema 5 marks example   **8**

Q.5   i.   One Marks each   **3**
ii.   Step & example   **7**
OR   iii.   What 2 , why 3,Explain 2   **7**

Q.6   Attempt any two:
i.   One Each   **4**
ii.   At least 3 operators + 3example   **6**
iii.   Enlist at least 4 types-4, define relationship 2   **6**

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