

## SGG 3643 (Computer Programming III)

### Exam #2 (10%)

3-March-2010

Answer **ALL** questions.

#### Question 1:

- (a) Are there any significant differences between XSLT and CSS? Discuss this statement. [4 marks]
- (b) What are the advantages and disadvantages of using VRML or X3D technology for visualizing 3D geospatial data via Internet? [4 marks]
- (c) Discuss the importance of XML in GIS domain. Compare it with HTML by giving an appropriate example to support your discussions. [4 marks]
- (d) Explain why GML is the future standard for online data sharing. Give an appropriate example to support your statements. [4 marks]
- (e) Please refer the XML, DTD and XSL coding next page. There are dozen of errors in the Musicians source code. Find the errors by highlighting them (on this question sheet) and provide a correct syntax on your answer sheet. [9 marks]

### Musicians.xml

```
<?xml version="1.0" encoding="ISO-8859-1"
standalone="yes"?>
<?xml:stylesheet type="text/css"
href="../musicians.css" ?>
<!DOCTYPE booklist SYSTEM "musicians.dtd">

<booklist>
  <book id="1" year="2008">
    <title>&author;</title>
    <instrument>drums</instrument>
    <numofrecordings>1</numofrecordings>
  </book>
  <books id="2" year="2009">
    <title>&author</title>
    <instrument>guitar</instruments>
    <numofrecordings>3</numofrecordings>
  </books>
</booklist \>
```

### Musicians.xsl

```
Titel {display: block;
      font-family:Verdana, Arial;
      font_size:10px;
      color:blue,
      font-weight:bold;
      text-align:left;
      top-margin:1cm;
      left-margin:2cm;
      text-deco:underline;}

Book {display: block;
      fontfamily:Verdana; Arial;
      font-size:10px;
      padding-left:15pt
      padding-right:15pt
      padding-top:20pt
      padding-down:20pt};
```

### Musicians.dtd

```
<!ELEMENT booklist (book)+ >
<!ELEMENT book (title; instrument; numofrecordings)>
<!ELEMENT title (#PCDATA)>
<!ELEMENT instrument (#PCDATA)>
<!ELEMENT numofrecordings (*PCDATA)>
<!ENTITY author "Maju-Mundur Recordings">
<!ATTLIST book
  year CDATA #REQUIRED
  id ID #REQUIRED
>
```