

# SGG 3643 (Computer Programming III)

## Final Examination (20%)

17-March-2010

Answer **ALL** questions.

### Question 1:

- (a) After having sent a WWW request for the document with the URL <http://www.ibm.com/education/> you get a response from the server <http://www-3.ibm.com/software/info/education/>. What has happened? [3 marks]
- (b) In HTML forms an image can act as an input field. Give a source code example. What are the specific properties of this form element? [3 marks]
- (c) In XML, why and when we need to use DTD or XSL? [4 marks]

### Question 2:

- (a) As part of an HTML page you discover the following code:

```
<script type="text/javascript">
function checkOption)
{
  for (i=0; i<document.form.checkgroup.length; i++){
    if (document.form.checkgroup[i].checked==true)
      alert("Checkbox at index "+i+" is checked!")
    else
      document.form.checkgroup.focus();
    return false;
  }
}
```

Explain this code fragment. What is its purpose? What is the meaning of `document.form.checkgroup.length` and `document.form.checkgroup.focus()`? [5 marks]

- (b) In GML, the term EPSG is used to associate a specific GIS layer with a projection system. Why it is implemented such way? [2 marks]
- (c) X3D will enable visualization of 3D geospatial data via Internet. Give an example of X3D code that visualizes a simple building in LOD1 which located in Johor (RSO). [3 marks]

GOOD LUCK.