RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

B.Sc. (Special) Degree in Information Communication Technology
Fourth Year – Semester II Examination – April/May 2015

ICT 4208- GEOGRAPHIC INFORMATION SYSTEMS

<u>Answer **all** questions</u>   Time: One and a half (1 ½) hours

1.   (a) Describe the techniques that is used in pattern analysis   [10 marks]

      (b) Explain how spatial correlation is done   [10 marks]

      (c) Explain the term "Moving window averaging"   [05 marks]

2.   (a) Define the terms
                  (i) Accuracy
                  (ii) Resolution
                  (iii) Projection and
                  (iv) Scale   [10 marks]

      (b) Discuss how the Raster and Vector models are separately used for data
           representation   [05 marks]

      (c) Explain the four types of raster data storage methods   [10 marks]

3.   (a) Discuss details of different types of attribute data   [05 marks]

      (b) Explain with illustrations the *"Tesselations"* in Raster Data Structures
                                                                          [10 marks]

      (c) Give a detailed account on "Raster Array Representations for <u>multiple</u>
      .   layers"   [10 marks]