RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES, MIHINTALE

B.Sc. (Four - Year) Degree in Information Communication Technology
Fourth Year Semester I Examinations – June/July 2018

ICT 4208 - GEOGRAPHIC INFORMATION SYSTEMS

Time: Two (02) hours

Answer <u>ALL</u> questions.

1. a) State various types of input techniques and GIS data.   **(40 marks)**

   b) Give **<u>five (05)</u>** attributes of each of the following institutes that use GIS.

      i) Disaster Management Center
      ii) Metrological Department
      iii) Geological Survey and Mines Bureau   **(40 marks)**

   c) Explain the term "Moving window averaging"   **(20 marks)**

2. a) Describe how geographic integration of information is carried out during implementation of a
       GIS data model   **(40 marks)**

   b) What is meant by (i) Projection (ii) Accuracy (iii) Scale and (iv) Resolution   **(20 marks)**

   c) Discuss the terms spatial and attribute data with suitable examples   **(40 marks)**

3. a) Compare and contrast between raster and vector data models.   **(10 marks)**

   b) Explain with illustrations raster data storage methods.   **(10 marks)**

   c) Give a detailed account on spatial relationships.   **(05 marks)**

4. a) Write the definition of remote sensing as given by Lillesand and Kiefer, 1994 **(05 marks)**

   b) State the fields of application in remote sensing (Give **five (5)** fields) and describe one of the fields with appropriate examples. **(10 marks)**

   c) Briefly explain **three (03)** types of remote sensing methods. **(10 marks)**

-------END-------