

**University of Ruhuna- Faculty of Technology**  
**Bachelor of Biosystems Technology Honours Degree**  
**Level 2 (Semester II) Examination, November/December 2023**  
**Academic year 2021/2022**

**Course Unit: BST 2222 Geoinformatics and Biosystems (Theory)**  
**Duration: One and Half Hours (1.5)**

.....  
**Instructions**

Answer All Four (04) Questions

**Question One**

The Forest Department and The Department of Wildlife Conservation have collaboratively initiated a project to use Remote Sensing Technology for environmental conservation. While assuming that you are an advisor, explain how the applications of Remote Sensing could be used for this task. (25 Marks)

**Question Two**

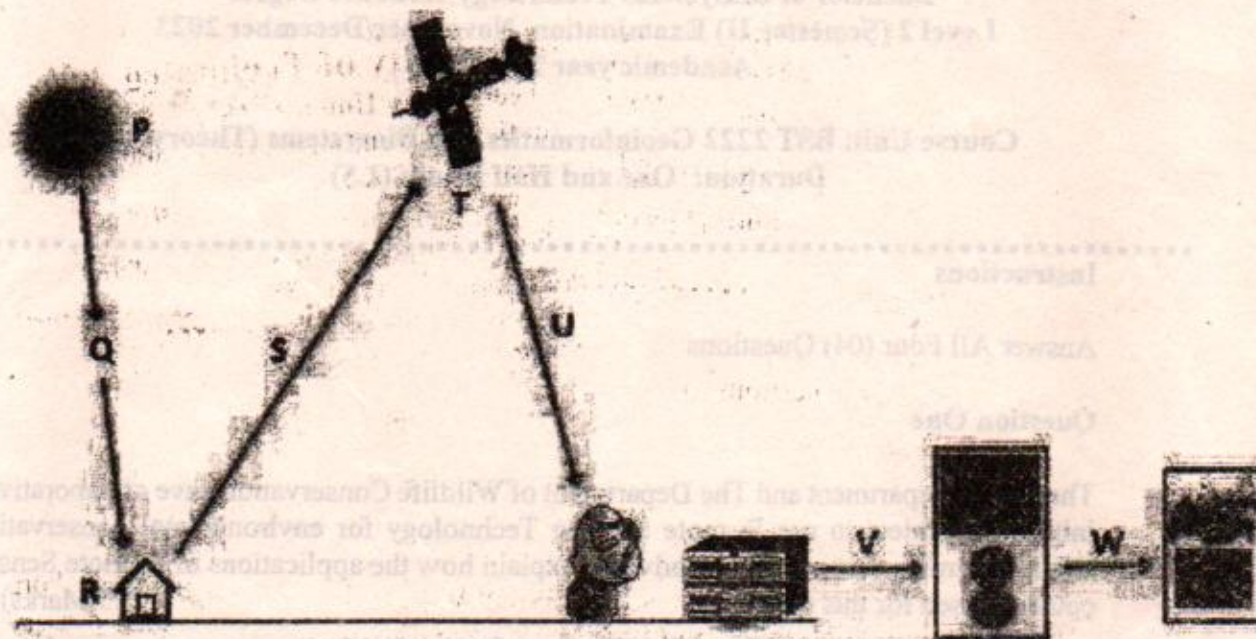
A. Write the suitable map projection according to the description given below. (6 Marks)

- i. Equate the longitude values with the X axis and the latitude values with the Y axis.
- ii. One specifies its horizontal position and the other its vertical position.
- iii. Values are represented as Degrees Minutes and Seconds.

B. What are the characteristics of Raster Data Model? (3 Marks)

C. Briefly explain the types of maps you have learnt. (16 Marks)

**Question Three**



- A. Identify and label from P to W (16 Marks)
- B. Drones has been the revolution of Remote Sensing in modern world. Write three advantages of using Drones instead of airplanes or satellites. (6 Marks)
- C. Remote sensing allows users to i....., ii....., and iii..... objects and features on the Earth's surface. (3 Marks)

**Question Four**

- A. State three (3) examples for spatial data and three (3) examples for non-spatial data (6 Marks)
- B. The success of spectral signature depends on four main factors. What are those? (4 Marks)
- C. Briefly discuss the advantages and disadvantages of GIS (15 Marks)

.....End of the paper.....