



FIJI NATIONAL UNIVERSITY
College of Agriculture, Fisheries & Forestry
School of Agriculture
Department of Soil Science & Agril. Chemsitry
FINAL EXAMINATION: 2017

B.Sc Agriculture IIIrd year: Trimester Ist

REMOTE SENSING AND ITS APPLICATION IN AGRICULTURE: AGR 703

TOTAL MARKS: 50

TIME ALLOWED: 3:10 HOURS

INSTRUCTIONS:

This paper consists of three (3) pages. Please check to see that your paper is complete.

Answer all questions in the answer booklet.

- Number your answers correctly in the provided answer booklet.
- Write your student ID number on all pages that you use including any additional sheet paper.
- Printed or written study materials are not allowed into the examination hall.
- Mark values appear at the end of each question or part thereof.

"MOBILE PHONES ARE STRICTLY NOT ALLOWED"

Part I: Elaborate the given abbreviations used in remote sensing.

Each 1 mark = total 10 marks

- | | |
|----------|-----------|
| 1. SAR | 6. FLIR |
| 2. GPS | 7. NOAA |
| 3. EMS | 8. IRS |
| 4. RADAR | 9. NASA |
| 5. LIDAR | 10. AVHRR |

Part II: Answer the following questions

Attempt all questions = total 40 marks

1. List down the GIS web sites you have visited (minimum 3). (3 marks)
2. Briefly discuss the Airborne Remote Sensing and list any two remote sensing platforms. (4 marks)
3. Draw a neatly labeled sketch of Remote Sensing process components. Explain how satellites acquire images? (4 marks)
4. What do you understand with microwaves remote sensing? Discuss the factors that's can affect microwaves while strike to earth surface. (4 marks)

5. Discuss the applications of Remote Sensing in Meteorology, Geology, Agriculture, Disaster warning and assessment, Military. (5 marks)
6. What do you understand by a raster and vector data? Compare the advantages and disadvantages of vector data. (5 marks)
7. What is the difference between a GIS hardware and GIS software? How a GIS works? List down the name of GIS tasks. (5 marks)
8. Briefly discuss the types of resolutions and explain any two with appropriate diagram if any? (5 marks)
9. Explain the importance of Geographic Information Systems. List down the GIS tasks and discuss what type of Query and Analysis can be performed using GIS? (5 marks)

END OF EXAMINATION PAPER

