

**COLLEGE OF AGRICULTURE, FISHRIES AND FORESTRY****School of Agriculture and Forestry****Bachelor of Science in Agriculture- Year 3****Trimester 2, 2019 Final Examination****SAC 702- SOIL SURVEY AND LAND USE INTERPRETATION****TOTAL MARKS: 100****TIME DURATION: 3:00 HOURS****INSTRUCTIONS TO STUDENTS**

1. This paper consists of four (4) pages. Please check to see that your paper is complete.
2. You are allowed 10 minutes extra reading time in which you are NOT permitted to write.
2. Attach all the sheets used as your answer paper in their correct sequence and secure with a string.
3. Use both sides of the answer sheet and write your candidate number on each sheet.
4. Write clearly the number(s) of the question(s) attempted on the top of each sheet.
5. Candidates are not allowed to carry any textual material, printed or written material, bits of papers, inside the Examination Room/Hall

**“MOBILE PHONES ARE STRICTLY NOT ALLOWED”**

SECTION	PARTICULARS	TOTAL MARKS
A	Multiple choice question	10
B	Short answers questions	30
C	Long answers questions	60
	Total	100

**SECTION A**

**MULTIPLE CHOICE QUESTIONS**

**(10X1=10 MARKS)**

**THERE ARE TEN QUESTIONS.EACH QUESTION CARRIES 1MARK.**

1. Soil surveys are of \_\_\_\_\_ types.
  - a. detailed
  - b. reconnaissance
  - c. detailed reconnaissance
  - d. all
  
2. Mulching helps in \_\_\_\_\_.
  - a. soil fertility
  - b. moisture conservation
  - c. improvement in soil structure
  - d. soil sterility
  
3. Soil Survey is \_\_\_\_\_.
  - a. mapping of soils in the fields
  - b. study of soils in the fields
  - c. both a and b
  - d. none of the above
  
4. Land Capability classes as 1, 2, 3 and 4 are \_\_\_\_\_.
  - a. used for cultivating field crops
  - b. used only for perennial forage crops
  - c. cannot be used for any crop
  - d. none of the above
  
5. Organic matter is an important part of soil because \_\_\_\_\_.
  - a. it helps to improve water infiltration
  - b. it can break down organic pollutants
  - c. it converts nitrogen in the air into nitrates used by plants
  - d. it is rich in nutrients, which is important for fertility

6. In a semi-detailed survey, soil survey is executed by \_\_\_\_\_.
- combination of remote sensing and field work
  - only based on remote sensing
  - only through field examination
  - none of the above
7. In soil survey, soil scientists dig soil pits for the purpose of \_\_\_\_\_.
- characterizing and describing the different types of soils that exist in the area
  - locating the boundaries between adjacent soils in the field
  - obtain samples and data points used in making computer-generated soil maps
  - all of the above
8. \_\_\_\_\_ is a group of soils found together in a landscape but differing in internal drainage class because of their slope position.
- Soil family
  - Soil association
  - Soil union
  - Soil catena
9. A geographical unit and area of land within which the greater proportion is occupied by the taxonomic class after which it can be named is called as \_\_\_\_\_.
- mapping unit
  - purity of mapping
  - soil survey
  - none
10. Soil conservation means \_\_\_\_\_.
- prevention of spread of desert
  - to check soil erosion by wind and rains
  - to check soil erosion by afforestation
  - all of these

## **SECTION B**

### **SHORT ANSWER QUESTIONS**

**Determine the differences between the following.**

**(5x6=30 marks)**

1. Detailed and reconnaissance soil survey
2. Land suitability orders and sub orders
3. Soil erosion and soil survey
4. Passive and active sensors
5. Soil classification and soil survey

## **SECTION C**

### **LONG ANSWERS QUESTIONS**

**Attempt any six (6) of the following questions.**

**(6X10=60 marks)**

1. Soil survey interpretations provide users of soil classification and soil maps with predictions about the behavior of each kind of soil under defined situations. Explain in detail.
2. Soil survey has its own limitations. Provide an essay on limitations of soil survey.
3. What are soil maps and reports? Describe purpose of soil maps and reports in detail.
4. What is soil survey? Provide a list of different types of soil surveys and explain any one in detail.
5. Soil survey information is the key to understanding the soil resource. Write an essay on the importance of soil survey in Fiji.
6. What do you understand by land capability classification? Provide a detail note on different land capability classes.
7. What are various methods of soil survey? Describe any one method in detail.
8. Remote sensing is very useful tool in soil survey and land use interpretation. Write an essay on importance and use of remote sensing in soil survey and land use interpretation.

**END OF EXAMINATION PAPER**