

COLLEGE OF AGRICULTURE, FISHERIES & FORESTRY
School of Agricultural Sciences
Department of Crop Production
Bachelor of Education (Secondary) Agriculture Science – Year I
AGO 501: Principles of Agronomy and Agrometeorology

Trimester 1 Final Examination 2017

[Total Marks: 100]

Time Allowed : 3 hours plus 10 minutes reading time

Instructions : This paper consists of 5 pages.

- Please check to see that your paper is complete.
- Answer ALL questions in the answer booklet. Number your answers correctly in the answer booklet.
- Write your student ID number on all the pages that you use including any additional sheet of paper.
- Printed or written material is not allowed into the examination hall.
- Mark values appear at the end of each question or part thereof.
- Non-programmable calculators are permitted.

“MOBILE PHONES ARE STRICTLY NOT ALLOWED”

SECTION	PARTICULARS	TOTAL MARKS	THE ALLOCATIONS
A	Part 1: Multiple Choices Part 2: Fill in the Blanks Part 3: True and False Part 4: Matching	35	40 minutes
B	Short answers	35	70 minutes
C	Long answers	30	70 minutes
	Total	100	

SECTION –A

There are four parts in this section. All the questions are compulsory. In your answer booklet write the question number followed by the answer.

Part 1: Multiple Choices. Pick the correct answer.

(10×1.5=15 Marks)

- (1) The term agriculture is derived from _____ word.
- Latin
 - Arabic
 - Fijian
 - Indian
- (2) Study of climatic factors in relation to agriculture. _____
- Pomology
 - Agrometerology
 - Pathology
 - Geology
- (3) Physical condition of soil resulting from tillage _____
- Structure
 - Texture
 - Tilth
 - None of these
- (4) Ploughing land with standing water to create an impervious layer below the surface to reduce deep percolation losses of water to provide soft seedbed for planting rice is known as _____
- Puddling
 - Sickling
 - Tillage
 - Flood tillage
- (5) The cotyledons remain under the soil in _____
- Epigeal germination
 - Hypogeal germination
 - Late germination
 - None of these
- (6) Failure of mature viable seed to germinate under favorable condition of moisture is as _____
- Seed rest period
 - Seed health
 - Seed viability
 - Seed dormancy

(7) Criteria of essentiality of plant nutrients was given by _____

- a. Robert hook
- b. Arnon
- c. Robert brown
- d. Molisch

(8) Nutrients required by plants in larger amounts are known as _____

- a. Functional nutrients
- b. Macro nutrients
- c. Micro nutrients
- d. None of these

(9) Urea is a _____

- a. Straight fertilizer
- b. Complex fertilizer
- c. Mixed fertilizer
- d. Manure

(10) The book “Horse Hoeing Husbandry” was written by _____

- a. Tisdale
- b. Jethro Tull
- c. Prem Singh
- d. Arnon and Stout

Part 2: Fill in the blanks with appropriate answers. (5×1=5 Marks)

- (1)weeds complete their life cycle within one year / one season.
- (2) is complete removal of all live plant parts and seeds of the weed from an area.
- (3) are chemicals capable of killing or inhibiting the growth of plants.
- (4) Removal of weeds either manually or by handy tools is known as.....
- (5) Weeds which are introduced from other countries are called as.....

Part 3: TRUE OR FALSE

(10×1 =10 Marks)

- (1) Irregular flow of income over the year is an advantage of crop rotation. (True/False)
- (2) Removal of excess water from the surface or below the surface of the soil to create favorable conditions for plant growth is drainage. (True/False)
- (3) In a rotation crops with tap roots should be followed by fibrous root system. (True/False)
- (4) In shifting cultivation farm is not at a permanent location. (True/False)

- (5) Sprinkler irrigation is also known as overhead irrigation.(True/False)
- (6) Growing one crop variety in pure stands on a field is referred to as Mono cropping. (True/False)
- (7) Coconut-Piper-Banana-Pineapple is an example of multi storied cropping system. (True/False)
- (8) Cyperaceae and typhaceae family weeds are known as sedges. (True/False)
- (9) Albedo of cropped field ranges from 12-13. (True/False)
- (10) The term “Agronomy” has been derived from Latin word. (True/False)

Part 4: Match the following .

(5×1=5 Marks)

- | | | |
|----------------|---|----------------------|
| 1. Cowpea | A | Bio-herbicide |
| 2. De-vine | B | Primary nutrients |
| 3. Ca, Mg, S | C | Secondary nutrients |
| 4. Rice | D | Hypogeal germination |
| 5. C,H,O,N,P,K | E | Epigeal germination |

SECTION- B (Short Answers) (7×5= 35 Marks)

Answer all the questions. Each question carries 5 marks.

1. Define irrigation. Write four objective of irrigation?
2. Define tillage. What are different objectives of tillage?
3. Differentiate between soil fertility and soil productivity.
4. Enlist five main principles of crop rotation.
5. What is harvesting? Describe different operations of harvesting in brief.
6. Classify weeds on the basis of life cycle.
7. Write four differences between manures and fertilizers.

Section-C (Long answers) (3×10=30Marks)

Answer only three from the following questions. Answer each in 300 words. **Each question carries 10 marks.**

1. Describe criteria of essentiality of plant nutrients. Enlist different nutrients essential for plant growth with their forms absorbed by plants.
2. Define Agricultural Meteorology. Discuss its significance in agriculture.
3. What is shifting cultivation? Write its common features. Enlist its disadvantages.
4. Write an essay on scope of agronomy in Fiji.
5. Discuss significance of study of agricultural meteorology.
6. Write an essay on the injuries caused by low air temperature in plants.

THE END

