

**COLLEGE OF AGRICULTURE, FISHERIES & FORESTRY**  
 Department of Crop Production  
 School of Agricultural Sciences  
 Bachelor of Science in Agriculture – Year I  
**AGO 503: Principles of Agronomy**

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**Trimester 1 Final Examination 2017**  
**[Total Marks: 100]**

Time Allowed : 3 hours plus 10 minutes reading time

Instructions : This paper consists of 6 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	<b>Part 1: Multiple Choices</b> <b>Part 2: Fill in the Blanks</b> <b>Part 3: True and False</b> <b>Part 4: Matching</b>	<b>35</b>	<b>30 minutes</b>
B	<b>Short answers</b>	<b>35</b>	<b>60 minutes</b>
C	<b>Long answers</b>	<b>30</b>	<b>90 minutes</b>
	<b>Total</b>	<b>100</b>	



## 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. (10x1.5=15 Marks)**

(1) Diagnosis of fertilizer requirement can be done by

- A. Plant observation.
- B. Plant analysis.
- C. Field experiments
- D. All of the above

(2) .....is a commercial/industrial crop.

- A. Rice
- B. Sugarcane
- C. Okra
- D. None of these

(3) The cotyledon when pushed above the soil is

- A. Epigeal germination.
- B. Hypogeal germination.
- C. Late germination.
- D. None of these

(4) Failure of mature viable seed to geminate under favorable condition of moisture is termed as

- A. Seed rest period.
- B. Seed health.
- C. Seed viability.
- D. Seed dormancy.

(5) Criteria of essentiality of plant nutrients was coined by

- A. Robert.
- B. Arnon.
- C. Robert brown.
- D. Molisch.



(6) Removal of entire plants or economic parts after maturity from the field is called as.....

- A. Ripening .
- B. Threshing .
- C. Harvesting.
- D. None of these

(7) \_\_\_\_\_ is an order in which the crops are cultivated on a piece of land over a fixed period of time.

- A. Farming system
- B. Cropping system
- C. Mixed farming
- D. None of these

(8) 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

- A. Puddling.
- B. Sickling.
- C. Tillage.
- D. Flood tillage.

(9) A .....consist a miniature plant (the embryo) enclosed in a wrapper (the testa).

- A. Seed
- B. Grain
- C. Flower
- D. None of these

(10) Urea is a .....

- A. Organic fertilizer.
- B. Inorganic fertilizer.
- C. Mixed fertilizer.
- D. None of these



**Part 2:**

**Fill in the blanks with appropriate answers give below. (10 X1=10 Marks)**

1. \_\_\_\_\_ weeds complete their life cycle within one year / one season.
2. \_\_\_\_\_ refers to raising a crop with regrowth coming out of roots or stubbles after harvest of the crop.
3. \_\_\_\_\_ is complete removal of all live plant parts and seeds of the weed from an area.
4. \_\_\_\_\_ are chemicals capable of killing or inhibiting the growth of plants.
5. \_\_\_\_\_ are those which supply only one primary plant nutrient.
6. The stage of growth when plants are most sensitive to water shortage is called \_\_\_\_\_.
7. The practice of growing one crop variety in pure strands on a field is referred to \_\_\_\_\_.
8. Weeds which are introduced from other countries are called as \_\_\_\_\_.
9. \_\_\_\_\_ includes ploughing twice or thrice followed by harrowing and planking. It leaves no land unploughed and leaves no residues on the soil.
10. \_\_\_\_\_ is a broader term used to indicate the yield of crops.

**Part 3: True or False.**

**(10 x.5 =5 Marks)**

1. Noxious weed are whose seed is difficult to separate from the crop seed after contamination is called objectionable weed. (True/False)
2. Physiological and harvest maturity are same. (True/False)
3. Soil productivity is the resultant of just one factor influencing soil management to produce crops. (True/False).
4. Rhizobium cultures are preparation, containing live or latent cells of the efficient strains of N fixing, phosphate solubilizing microorganism. (True/False)





5. In shifting cultivation farms are not at a permanent location. (True/False)
6. Sprinkler irrigation is also known as overhead irrigation. (True/False)
7. Growing one crop variety in pure stands on a field is referred to as Mono cropping. (True/False)
8. Cyperaceae and Typhaceae family weeds are known as sedges. (True/False)
9. Harvest maturity generally occurs 7 days after physiological maturity. (True/False)
10. Sun drying method is generally used in tropical countries. (True/False)

**Part 4: Matching**

**(5 x 1=5 Marks)**

	<b>List A</b>		<b>List B</b>
1.	Mimicry	A.	Fe, Mn, Cu, Zn, Co
2.	Soil Fertility	B.	C, H, O, Ca, Mg, N, P and K
3.	Secondary nutrients	C.	Ca, Mg, S
4.	Macronutrients	D.	It is the potential status of soil.
5.	Cationic	E.	Weeds look exactly like crops morphology and complete their life cycle.

**SECTION- B**

**Short Answers**

**(7×5= 35 Marks)**

**Answer all the questions. Each question carries 5 marks.**

1. Differentiate between irrigation and drainage.
2. Define tillage and tilth. What are different objectives of tillage?
3. What is critical stage for irrigation?
4. Enlist five main principles of rotating crops.
5. What is harvesting? Describe different operations of harvesting in brief.
6. Differentiate between soil fertility and soil productivity.
7. Why is it important to know when to harvest a crop?



**Section-C**

**(Long answers)**

**(3x10=30 Marks)**

Answer only **three (3)** questions.

Answer each question in 300 words

1. What do you understand by modern concept of tillage? Discuss in detail.
2. What are weeds? Discuss different beneficial and harmful effects caused by weeds.
3. What is shifting cultivation? Write its common features. Enlist its disadvantages.
4. Describe criteria of essentiality of plant nutrients. Enlist different nutrients essential for plant growth with their forms absorbed by plants.
5. Write an essay on Scope of Agronomy in Fiji.

**THE END**

