



COLLEGE OF AGRICULTURE, FISHERIES AND FORESTRY

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF CROP PRODUCTION

BACHELOR OF SCIENCE IN AGRICULTURE YEAR I

AGO-503 (Principles of Agronomy)

Date of Examination:

Time:

FINAL EXAM TRIMESTER- 3, 2017

DURATION 3 HOURS

INSTRUCTIONS TO STUDENTS

1. This paper consists for 05 pages. Please check to see that your paper is complete.
2. Printed or written material is not allowed in examination hall.
3. Answer all the questions in the answer booklet. Number your answers correctly in the answer booklet.
4. Attach all the sheets used as your answer paper in their correct sequence and secure with a string.
5. Use both sides of the answer sheet and write your candidate number on each sheet.

SECTION	PARTICULARS	TOTAL MARKS	TIME ALLOCATION
A	Part 1: Multiple Choices Part 2: Fill in the Blanks Part 3: True and False Part 4: Matching	40	40 minutes
B	Short answers	30	50 minutes
C	Long answers	30	90 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 I: Multiple Choices. Pick the correct answer.

(10×1.5=15 Marks)

- (1) Nutrients required by plants in lesser amounts are known as _____
- Functional nutrients
 - Macro nutrients
 - Micro nutrients
 - None of these
- (2) _____ is not bulky organic manure.
- Poultry manure
 - Green manure
 - Compost
 - Fish meal
- (3) Physical condition of soil resulting from tillage _____
- Structure
 - Texture
 - Tilth
 - None of these
- (4) The inherent capacity of the soil to supply plant nutrients in adequate quantities and in suitable proportions _____
- Soil productivity
 - Soil fertility
 - Soil quality
 - None of above
- (5) The cotyledons comes above 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 _____
- Robert hook
 - Arnon
 - Robert brown
 - Molisch

(8) Diagnosis of fertilizer requirement can be done by _____

- a. Plant observation
- b. Plant analysis
- c. Field experiments
- d. All of the above

(9) Application of plant nutrient with irrigation water is known as _____

- a. Fertilization
- b. Nutrition
- c. Fertigation
- d. Placement

(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 give below.

(5×1=5 Marks)

(1)weeds complete their life cycle within two years.

(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.....

(Annual, Hand weeding, Perennial, Eradication, Herbicide, Fungicide, Control, Noxious weeds, Alien weeds, Biennial weeds)

Part 3: Mark true or false. (10×1 =10 Marks)

- (1) Regular 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) Large population of perennial weeds is a problem in zero tillage cultivation. (True/False)
- (5) Sprinkler irrigation is also known as trickle irrigation. (True/False)
- (6) Growing one crop variety in pure stands on a field is referred to as Mono cropping. (True/False)
- (7) Forage crop refers to vegetative matter fresh as preserved utilized as food for animals. (True/False)
- (8) Management is an external factor affecting plant growth and development. (True/False)
- (9) Mulching helps in suppression of weeds. (True/False)
- (10) The term “Agronomy” has been derived from Greek word. (True/False)

Part 4: Match the following. (10×1=10 Marks)

A.

Sl.no.	Elements/Bio fertilizer/Crops	Sl.no.	Elements/Bio fertilizer/Crops types
1.	C,H,O,N,P,K	A	Bio-herbicide
2.	Ca, Mg, S	B	Primary nutrients
3.	De-vinc	C	Secondary nutrients
4.	Rice	D	Hypogeal germination
5.	Cowpea	E	Epigeal germination

B.

Sl.no.	Elements	Sl.no.	Essentiality established by
1.	C	A	Ahmed and Evans
2.	Zn	B	Sprengel
3.	Mn	C	Priestly <i>et.al.</i>
4.	Co	D	Hargue
5.	Ca	E	Sommer and Lipman

SECTION- B (Short Answers) (6×5= 30 Marks)

Answer all the questions. Each question carries 5 marks.

1. Appraise importance of irrigation and write any four objectives of irrigation.
2. Differentiate tillage and tith. What are different objectives of tillage?
3. Differentiate between soil fertility and soil productivity.
4. What is harvesting? Analyse and discuss different operations of harvesting in brief.
5. Categorize weeds on the basis of life cycle.
6. Differentiate between manures and fertilizers.

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

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

1. Discuss modern concept of tillage in detail.
2. What are weeds? Categories different beneficial and harmful effects of weeds.
3. What is shifting cultivation? Categories its common features and disadvantages.
4. Discuss criteria of essentiality of plant nutrients. Categorize different nutrients essential for plant growth with their forms absorbed by plants.
5. Analyse and discuss scope of agronomy in Fiji.

THE END