

**SCHOOL OF AGRICULTURAL SCIENCES  
DEPARTMENT OF CROP PRODUCTION  
BACHELOR OF SCIENCE IN AGRICULTURE YEAR II  
AGO 602 Field Crops Production-II**

**Date of Examination:**

**Time:**

**FINAL EXAM TRIMESTER- II, 2017**

**DURATION 3 HOURS**

**INSTRUCTIONS TO STUDENTS**

1. This paper consists for 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.
3. Attach all the sheets used as your answer paper in their correct sequence and secure with a string.
4. Use both sides of the answer sheet and write your candidate number on each sheet.
5. Write clearly the number(s) of the question(s) attempted on the top of each sheet.

<b>SECTION</b>	<b>PARTICULARS</b>	<b>TOTAL MARKS</b>	<b>THE ALLOCATIONS</b>
<b>A</b>	<b>Part 1: True and False Part 2: Matching</b>	<b>35</b>	<b>30 minutes</b>
<b>B</b>	<b>Short answers</b>	<b>35</b>	<b>60 minutes</b>
<b>C</b>	<b>Long answers</b>	<b>30</b>	<b>90 minutes</b>
	<b>Total</b>	<b>100</b>	

## SECTION –A

There are two parts in this section. In your answer booklet write the question number followed by the answer.

**Part 1:** Mark true or false.

(20×1 =20 Marks)

1. Irrigation can cause excessive growth leading to lodging in chickpea.
2. In chickpea total quantities of N, P and K should be given as a basal dose.
3. Bumper is a variety of chickpea.
4. Chickpea has a determinate growth habit.
5. Soil analysis should be done before fertilizer application.
6. Seed rate varies with seed size.
7. Waterlogging at any stage adversely affects its yield of French bean.
8. Legume family of plants is unique in that they naturally fix potassium in the soil.
9. Generally pulses are non-responsive to good management
10. Liming is the most important practice in the acid soils to improve production.
11. Stem cuttings or sections of the stalks of sugarcane are called "setts".
12. Hand refractometer can be used to assess the maturity of standing sugarcane crop.
13. Chickpea has indeterminate growth habit.
14. Soil analysis should be done after fertilizer application.
15. Ono variety of sugarcane is recommended for *Seaqqa* district
16. In chickpea sowing depth can be up to 6-8 cm.
17. Canola varieties of sunflower are suitable for edible purpose.
18. TPS is related to mustard.
19. Chickpea seedlings have hypogeal emergence.
20. Higher rates of sulphur application may increase the anti-nutritional factor glucosinolates in mustard.

**Part 2: Matching**

**(A) Match the following crops to their sowing/planting times. (5×1=5 Marks)**

Sl. No.	Crops	Sl. No.	Time of sowing/planting
1.	Long bean	A	All round year
2.	Potato	B	May to June
3.	Mustard	C	Cool months
4.	Sugarcane	D	December - May
5.	French bean	E	April to September

**(B) Match the following crops to their seed rates. (5×1=5 Marks)**

Sl. No.	Name of the crops	Sl. No.	Seed rate
1.	Mustard	A	5 to 6 kg
2.	French bean	B	45 to 50kg/ha
3..	Long bean	C	7 kg/ha
4.	Potato	D	1.5-2.0 t/ha
5.	Tobacco	E	3.5 kg/ha (optimum )

**(C) Match the following crops to their scientific names. (5×1=5 Marks)**

Sl. No.	Name of the crops	Sl. No.	Scientific names
1.	Tobacco	A	<i>Brassica sp.</i>
2.	Potato	B	<i>Nicotiana tabacum</i>
3.	Sunflower	C	<i>Helianthus annus</i>
4.	Sugarcane	D	<i>Solanum tuberosum</i>
5.	Mustard	E	<i>Saccharum officinarum</i>

**SECTION- B (Short Answers)**

**(7×5= 35 Marks)**

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

1. Judge importance of puddling in rice cultivation.
2. What is seed priming in mustard sowing? Compare its benefits?
3. Write recommendation for selecting good potato seed for planting.
4. How biological nitrogen can be applied in maintaining soil fertility?
5. What is earthing up in potato? When and how should it be done?
6. Compare advantages of topping and suckering in tobacco?
7. What are the characteristics of ideal sugarcane planting material?

**Section-C (Long answers)**

**(3×10=30 Marks)**

Answer only **three** from the following questions. Question no.1 is compulsory for all.  
Each question carries **10 marks**.

1. Give the reason of following.
  - a. Post-emergence application of herbicides is limited in mustard cultivation.
  - b. Only 20–30 kg nitrogen per hectare is applied in chickpea crop.
  - c. A fine seed bed is required for mustard sowing.
  - d. Propping operation is very important in sugarcane cultivation.
  - e. In chickpea crop acids play an important role in protecting the plant against insect-pests.
2. Appraise Sugarcane cultivation under following heads.
  - (a) Scientific name and family
  - (b) Soils requirements
  - (c) Recommended varieties in Fiji
  - (d) Recommended planting method
  - (e) Earthing Up and propping
3. Appraise French bean (*Phaseolus vulgaris*) cultivation under following heads.
  - (a) Scientific name and family
  - (b) Soils requirements
  - (c) Recommended varieties in Fiji
  - (d) Recommended planting time, seed rate and spacing
  - (e) Nutrient management
4. Design an essay on status of potato production and potato production constraints in Fiji.
5. Appraise potato cultivation under following heads.
  - (a) Scientific name and family
  - (b) Soils requirements
  - (c) Recommended varieties in Fiji
  - (d) Recommended planting method
  - (e) Earthing Up and propping

**THE END**