
COLLEGE OF AGRICULTURE, FISHERIES AND FORESTRY (CAFF)**SCHOOL OF AGRICULTURAL SCIENCES****DEPARTMENT OF CROP PRODUCTION****BACHELOR OF EDUCATION (SECONDARY) AGRICULTURE SCIENCE YEAR II****AGO 602 Field Crops Production-II****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. 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.

| 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 1: Multiple Choices. Pick the correct answer.

(10×1=10 Marks)

(1) Mana and Rangna are varieties of _____ crop

- a. Mustard
- b. Sugarcane
- c. None of these

(2) Propping is related to _____ crop.

- a. Sugarcane
- b. Mustard
- c. None of these

(3) In wheat cultivation if only one irrigation water is available, apply irrigation at _____

- a. at CRI stage
- b. at heading stage
- c. None of these

(4) Seed rate of long bean (*Vigna sesquipedalis*) is _____

- a. 7 Kg/ha
- b. 17 Kg/ha
- c. None of these

(5) Earthing up is an important operation in _____ crop.

- a. Potato
- b. Long bean
- c. None of these

(6) Planting time of potato in Fiji is _____

- a. May-June
- b. Septemnr-October
- c. None of these

(7) Curing is related to _____ crop.

- a. Tobacco
- b. Mustard
- c. None of these

(8) Aphid is a serious insect of _____ crop

- a. Wheat
- b. Mustard
- c. None of these

(9) Regrowth of sugarcane is known as _____

- a. Propping
- b. Ratooning
- c. None of these

(10) _____ is a variety of potato.

- a. Dalisay
- b. Galoa
- c. None of these

Part 2: Fill in the blanks with appropriate answers give below.

(15×1=15 Marks)

1. Best planting time for French bean is
2. Contender is a variety of
3. For wheat cultivation optimum soil pH ranges between
4. According to FAO (2015)..... is the top most sugar cane producing country in world.
5. Sugarcane flower is known as.....
6. Ratooning is related with crop.
7. herbicide is used to control weeds weed types in sugarcane.
8. Reddening of vascular bundles of sugar cane is a symptom ofdisease.
9. Seed rate of Phaseolus vulgaris iskg/ha.
10. Propping is related to crop.
11. Galoa is a variety of crop.
12. First days after planting of French bean is the critical period for crop weed competition.
13. Best planting time for Phaseolus vulgaris.....
14. In sugarcane cultivation operation of tying the leaves together using the bottom dry and green leaves is known as
15. is to assess the maturity of standing crop by brix reading.

Part 3: TRUE OR FALSE (10×1 =10 Marks)

- (1) Cereals can be harvested at physiological maturity stage. (True/False)
- (2) In light soils crop should be irrigated frequently. (True/False)
- (3) Seed rate varies with seed size. (True/False)
- (4) Chickpea has determinate growth habit. (True/False)
- (5) Liming is the most important practice in the acid soils to improve productions.(True/False)
- (6) Ono variety of sugarcane is recommended for *Seaqaga* district. (True/False)
- (7) Waterlogging at any stage adversely affects its yield of French bean. . (True/False)
- (8) Rainfed crop reaches maturity earlier than irrigated crop. (True/False)
- (9) Bacterial wilt of potato is also known as ring disease. (True/False)
- (10) Soil analysis should be done before fertilizer application. (True/False)

Part 4: Match the following crops to their scientific names. (5×1=5 Marks)

| Sl.no. | Crops | Sl.no. | Scientific names |
|--------|-----------|--------|--------------------------|
| 1. | Tobacco | A | <i>Triticum aestivum</i> |
| 2. | Sunflower | B | <i>Nicotiana tabacum</i> |
| 3. | Potato | C | <i>Helianthus annus</i> |
| 4. | Wheat | D | <i>Solanum tuberosum</i> |
| 5. | Chickpea | E | <i>Cicer arietinum</i> |

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

Answer all the questions. Each question carries 5 marks.

1. Compare advantages of topping and suckering in tobacco?
2. Demonstrate various growth stages of sugarcane with suitable diagram.
3. What are different sugarcane production constraints in Fiji?
4. What is propping in sugarcane?
5. Evaluate importance of pulses in a crop rotation.
6. What are the characteristics of ideal sugarcane setts/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. As compared to irrigated areas, in rainfed areas less fertilizer should be applied.
 - b. Propping operation is very important in sugarcane cultivation.
 - c. As compared to other legume pulses nitrogen requirement of *Phaseolus vulgaris* quite high.
 - d. Deep sowing is practiced (6-7cm) under rainfed conditions where as shallow sowing is done under irrigated conditions.
 - e. Only 20–30 kg nitrogen per hectare is applied in chickpea crop.
2. Design Sugarcane cultivation under following heads.
 - (a) Botanical name and family (b) Soils requirements (c) Recommended varieties (d) Planting method (e) Earthing Up and propping
3. Design Potato cultivation under following heads.
 - (a) Botanical name and family (b) Soils requirements (c) Recommended varieties (d) Planting time, seed rate and spacing (e) Nutrient management
4. Evaluate constraints of pulse production in Fiji.
5. Design long bean cultivation under following heads.
 - (a) Botanical name an family (b) Soils requirements (c) Recommended varieties (d) Seed rate and spacing (e) Nutrient management

THE END