



COLLEGE OF AGRICULTURE, FISHERIES AND FORESTRY (CAFF)

SCHOOL OF AGRICULTURAL SCIENCES

DEPARTMENT OF CROP PRODUCTION

BACHELOR OF SCIENCE IN AGRICULTURE YEAR I

AGO 504 (Field Crops Production-I)

Date of Examination:

Time:

FINAL EXAMINATION TRIMESTER- 2, 2017

DURATION 3 HOURS

(An extra 10 minutes reading time in which you are NOT permitted to write)

INSTRUCTIONS TO STUDENTS

1. This paper consists for 04 pages. Please check 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 |
|---------|--|-------------|
| A | Part 1: Fill in the Blanks Part 2: True and False Part 3: Matching | 35 |
| B | Short answers | 30 |
| C | Long answers | 35 |
| | Total | 100 |

SECTION –A

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

Part 1: Fill in the blanks with appropriate answers.

(20×1=20 Marks)

1. variety of pigeon pea is grown for green pods and dry.
2. Recommended spacing for rice (dry land rice) is
3. Male inflorescence of maize is
4. Seed rate of rice for direct sowing isper hectare.
5. Mechanical manipulation of the soil at high moisture regime which reduces deep percolation losses is termed as
6. Deepak is a variety of..... crop.
7. Stages of plant growth in which plants are most sensitive to shortage of water known as.....
8. Kamica is a variety of crop.
9. Flowering part of rice is known as.....
10. Seed rate for pure crop (Sole crop) of maize is.....
11. Nirala is a variety of
12. Damping off is an important disease ofcrop in Fiji.
13. Generally soil analysis is to be done fertilizer application.
14. Pulse crops can fix atmospheric.....
15. On fertile soils pigeon pea is sown at spacing of
16. *Cyperus rotundus* is a major weed ofcrop.
17. Tikka disease is related to.....crop.
18. Pegging is related to crop.
19. Seed rate for cotton is..... Kg/hectare.
20. Removal of grains from the rice panicles is known as.....

Part 2: Mark True or False

(20×0.5 =10 Marks)

1. Green pods of pigeon pea used as a vegetable are commonly picked by hand.
2. In Fiji main rice growing season is wet season.
3. In pulses nitrogen, phosphorus and potassium are applied as basal.
4. Pigeon pea if planted late in year gets reduced yields.
5. The growth of pigeon pea is quite slow during first 45-60 days after sowing.
6. Northern Division is the rice bowl of the Fiji with 80 percent of the production.
7. Seasonal varieties of pigeon pea are also known as photoperiod sensitive.
8. Saline, Alkaline and waterlogged soils are not suitable for pigeon pea cultivation.
9. Scientifically line sowing method is superior over broadcasting.
10. In most of the crops whole dose of phosphorus and potassium are applied as basal
11. Bio-control agents are not compatible with fungicides.
12. *Khaira*, caused by deficiency of Zinc, is as disorder of rice which is
13. Earthing up is an important operation in soybean.
14. Cotton is a malvaceae family plant.
15. Earthing up is an important operation in groundnut.
16. Squaring is related to cotton.
17. Kalokalo is a variety of groundnut.
18. Flowering and pod development stages are sensitive stages for moisture stress in soybean.
19. Sympodial branches of cotton plant bear flower.
20. To maintain optimum plant population, gap filling is done with the same stock of seed which was used at the time of sowing.

Part 3: Match the following crops to their planting times.

(5×1=5 Marks)

| Sl.No. | Crops | Planting time | Answer (Sl. No.) |
|--------|---------------------------|----------------------|------------------|
| 1 | Rice (Transplanting) | November to December | |
| 2 | Maize (Wet zone) | February to March | |
| 3 | Pigeon pea (Seasonal) | February to June | |
| 4 | Pigeon pea (Non seasonal) | February to October | |
| 5 | Maize (Dry zone) | October-November | |

SECTION- B (Short Answers)

(7×5= 35 Marks)

Answer all the questions. Each question carries 5 marks.

1. Analyse and discuss water management in maize.
2. What is puddling in rice field? Appraise five objectives of puddling in rice.
3. Enlist any five reasons for low yields of pulses.
4. Briefly demonstrate pegging process in ground nut.
5. What is delinting in cotton? Why is it done?
6. Categories macronutrient nutrient requirement of French bean.
7. Categories rice varieties available in Fiji with suitable example.

Section-C (Long answers)

(3x10=30 Marks)

Answer only **three** from the following questions. Question 1 is compulsory for all. Each question carries 10 marks.

1. Give reason for following.

- (i) Inter cultivation should not be done too near the plants of the maize. Why?
- (ii) In most of the legume crops a starter dose of Nitrogen is sufficient to meet the “N” requirement. Why?
- (iii) In ground nut farming (40 DAS), there should not be any disturbance near the plant through manual or mechanical weeding. Why?
- (iv) In pigeon pea cultivation planting late in the year should be avoided. Why?
- (v) While groundnut showing soil should be pressed down. Why?

2. Analyse and discuss husbandry practices of rice (*Oryza sativa*) under following heads.

- (a) Soil and climate requirements (b) Varieties (c) Seed rate (d) Nutrient management and Water management (e)Harvesting

3. Analyse and discuss husbandry practices of cotton (*Gossypium* sp.) under following heads.

- (a) Soil and climate requirements (b) Varieties (c) Seed rate (d) Nutrient management and Water management (e)Harvesting

4. Analyse and discuss husbandry practices of pigeon pea (*Cajanus cajan*) under following heads.

- (a) Soil and climate requirements (b) Varieties (c) Seed rate (d) Nutrient management and Water management (e)Harvesting

5. Analyse and discuss husbandry practices of maize (*Zea mays*) under following heads.

- (a) Soil and climate requirements (b) Varieties (c) Seed rate (d) Nutrient management and Water management (e)Harvesting

THE END