B.Sc.(Hons.)Agriculture

Semester	:	III (NEW)	Term	:	I	AcademicYear :	2021-22
CourseNo.	:	AGRO234	Title	:	Crop Production Technology – I (Kharif Crops)		
Credit	:	2(1+1)					
Day&Date	:	12.11.2021	Time	:		TotalMarks :	40

Note
1. SolveANY FOUR questionsfrom SECTION-A
2. SolveANYSIXquestions from SECTION-B
3. Allquestionsfrom SECTION-Carecompulsory
4. SendthePDFfileof answer sheetto theemailid ofrespectivecourseteacher

SECTION-A

(Writetheanswerin 4-5sentencesonly.Eachquestioncarries4 marks)

Q. 1. Describe the cultivation practices for Hybrid cotton on the following points?
a)Nutrient Management b) Weed Management

Ans:- Nutrient Management: Hybrid cotton required 150 Kg N, 75 Kg P_2O_5 and 75 Kg K_2O per hectare. Fifty percent of nitrogen and 100 percent of P and K is applied at the time of sowing and 50 percent N in two equal splits. The mineral nutrition of cotton depends on both the cotton roots ability to explore the soil and on the soils ability to supply N, P & K nutrients. The physico - chemical and biological conditions around the roots and their close interaction with organic matter in the soil & also play an important role in mineral nutrient uptake by plants.

Weed Management

Weed management in cotton can be done by mechanically and by use of herbicide. Hand weeding at 30 and 60 days is recommended with two to three hoeing. Pre-emergence herbicide like Pendimethalin 30% EC or 38.7% CS can be used whereas Pyrithioback sodium 10%EC or Quizalofop ethyl 5% EC or Finoxyprof p Ethyl 9.3%WW/EC is used as post emergence herbicide for weed management in cotton.

Q. 2. Describe the cultivation practices for low land rice on the following points?
a) Nursery bed preparation b) Varities

Ans: -

a) Nursery bed preparation:

Nursery area

1. Select 20 cents (800 m^2) of land area near to water source for transplanting one hectare in conventional method.
2. Required nursery area for SRI is 100 m2 / ha (or) 2.5 cent / ha (or) 1cent / acre

Nursery bed preparation

The area should have an assured water supply and an efficient drainage system.

It should be dry ploughed twice and apply 1tonne of FYM or compost to 20cents nursery. Later, it should be irrigated and allowed to be wet for another two days.Afterwards it should

be puddled twice and the puddling may be repeated after a gap of one week.Basal application of DAP 40kg is recommended when the seedlings are to be pulled out in 20-25 days after sowing in less fertile nursery soils, and if not readily available, apply straight fertilizers 16kg of uren and 120kg of super phosphate.After levelling and final puddling, beds of convenient length (8-10 m) with width of 2.5 m are to be made, leaving 30 - 50 cm channels in between two beds.Sow the sprouted seeds uniformly on the seedbed.

b) Varities (any 04)

Sakoli – 6	Panvel -1
Sindewahi – 2001	Ambika
PDKV Tilak	Prabhavati (PBN-1)
Sakoli – 8	Ratnagiri -68-1
PKV HMT	Ratnagiri -73-1
PKV Khamang	PKV Makrand

Q. 3. Describe the cultivation practices for Soybean on the following points?
a)Seed and sowing b) Weed Management

Ans:-a)Seed and sowing
Seed rate – 75 kg/ha
Sowing: Method- Drilling and dibbling
Time – Kharif season after receiving 70-100 mm rainfall
b) Weed Management
Weed management in soybean can be done by mechanically and by use of herbicide. Hand weeding at 15-20 days is recommended with one to two hoeing.
Pre-emergence herbicide like Pendimethalin 30% EC or 38.7% CS can be used whereas Imazethapyr 10%SL orImazethapyr + Imazimox 70 WG orQuizalofop ethyl 5% EC or Finoxyprof p Ethyl 19.3%WW/EC is used as post emergence herbicide for weed management in soybean.

Q. 4.Describe the cultivation practices for Kharif Sorghum on the following points?
a) Soil and Climate b) Nutrient management

Ans: - **a) Soil and Climate :** Sorghum is grown on a variety of soil types but the clayey loam soil rich in humus is found to be the most ideal soil
Climate: For Kharif Sorghum temperature ranging between 15 ^{0}C to 40 ^{0}C and annual rainfall ranging from 400 to 1000 mm..

b) Nutrient management: Kharif sorghum require 80:40:40 kg NPK/ha. 50% of nitrogen and 100 percent of P and K is applied at the time of sowing and 50 percent N at 25 to 30 days after sowing.

Q. 5. Describe the cultivation practices for maize on the following points?
a)Nutrient Management b) Weed Management.
Ans: - **a) Nutrient Management:** the recommended dose for maize crop is 120:60:30 kg NPK/ha. 33% of nitrogen and 100 percent of P and K is applied at the time of sowing and

remaining 66 % N is applied in two splits at 30 and 50 days after sowing.

b) Weed Management: Weed management in Maize can be done by mechanically and by use of herbicide. Hand weeding at 15-20 days is recommended with one to two hoeing. Pre-emergence herbicide like Atrazine 50% WP can be used whereas 2, 4-D Sodium Salt 80 WP, is used as post emergence herbicide for weed management in maize.

SECTION–B

(Writetheanswerin onesentenceonly.Eachquestioncarries2marks Solve any Six)

Q.6 Answer in one sentence

a) Which Vitamin is contains in Golden Rice: **- Vitamin A / Beta-carotene**
b) Write down the botanical name of Pearl millet **- *Pennisetumglaucum***
c) How much protein content in groundnut **– 20%**
d) Origin of Soybean is **– Southeast Asia**
e) Origin of Cotton is **– Asia (India/ Indus river Valley in Pakistan)**
f) Oil content in Sesame is **– 47 to 52%**
g) Oil content in Groundnut **- 40%**

SECTION-C

(Choosethecorrectoption.Eachquestioncarry1marks)

Q.7

1) a Transplanting
2) c 75
3) b Poaceae
4) a June-July
5) a *Zea mays*
6) c *Glycine max*
7) b 10-12
8) b 30 x 10
9) b 4-5
10) b 10000
11) b JS-335
12) d 25:50:00

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