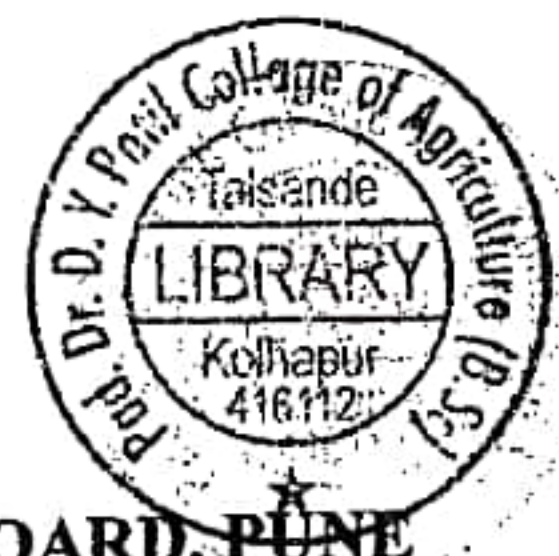


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**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE**  
**SEMESTER END EXAMINATION**

**B.Sc. (Agri.)**

<b>Semester</b> : IV (New)	<b>Term</b> : II	<b>Academic Year</b> : 2011-12
<b>Course No.</b> : AGRO 247	<b>Title</b> : Field Crops – II (Rabi Crops)	
<b>Credits</b> : 3 (2+1)		
<b>Day &amp; Date</b> : Friday, 27.04.2012	<b>Time</b> : 14.00 to 17.00	<b>Total Marks</b> : 80

- Note :**
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
  2. All questions from **SECTION "B"** are compulsory.
  3. All questions carry equal marks.
  4. Draw neat diagrams wherever necessary.

**SECTION "A"**

**Q.1** Describe in details the cultivation of irrigated wheat (timely sown) on following points:

- 1) Economics importance
- 2) Land preparation
- 3) Seeds and sowing
- 4) Harvesting, threshing and yield

**Q.2** Write in details the cultivation of chickpea on following points:

- 1) Seed and sowing
- 2) Fertilizer
- 3) Irrigation
- 4) Harvesting and threshing

**Q.3** Prepare a leaflet on safflower with respect to following points:

- 1) Origin
- 2) Intercropping
- 3) Seed and sowing
- 4) Sign of maturity, harvesting and yield

**Q.4** Discuss the cultivation of linseed in relation to:

- 1) Economics importance
- 2) Season
- 3) Seeds and sowing
- 4) Harvesting and yield

**Q.5** Prepare a leaflet for Sugarcane cultivation on following points:

- 1) Season
- 2) Selection of sets
- 3) Sets treatments
- 4) Sign of maturity, harvesting and yield

**Q.6** Advise a farmer regarding cultivation of Oat on following points:

- 1) Economics importance
- 2) Varieties
- 3) Season
- 4) Harvesting and yield

**Q.7** Explain in details the cultivation of Potato on the following points:

- 1) Seed and sowing
- 2) Fertilizer application
- 3) Irrigation
- 4) Harvesting and yield

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Q.8 Write in details regarding cultivation of berseem on following points:

- |                     |                          |
|---------------------|--------------------------|
| 1) Climate          | 2) Seed rate and spacing |
| 3) Water management | 4) Harvesting and yield  |

Q.9 Explain in details the cultivation of barley on the following points:

- |                    |  |
|--------------------|--|
| 1) Soil            | 2) Varieties   |
| 3) Seed and sowing | 4) Sign of maturity, harvesting, threshing and yield |

Q.10 Write a short notes (Any Four)

- |   |  |
|---|--|
| 1) Toxicity effect of lucern            | 2) Economics importance of lemon grass               |
| 3) Topping in tobacco                   | 4) Classification of pea                             |
| 5) Advantages of ratooning in sugarcane | 6) Harvesting, lancing and latex collection in poppy |

#### SECTION "B"

Q.11 Match the pairs.

"A"

"B"

- |                |                                  |
|----------------|----------------------------------|
| 1) Berseem     | a) <i>Pisum sativum</i>          |
| 2) Lucern      | b) <i>Papaver somniferum</i>     |
| 3) Citronella  | c) <i>Plantago ovata</i>         |
| 4) Lemon grass | d) <i>Cymbopogan martinii</i>    |
| 5) Palmarosa   | e) <i>Cymbopogan flexuosus</i>   |
| 6) Isabgol     | f) <i>Cymbopogan winterianus</i> |
| 7) Opium poppy | g) King of fodder                |
| 8) Pea         | h) Queen of fodder               |

Q.12 Fill in the blanks.

- 1) Oil content in safflower seed is \_\_\_\_\_ per cent.
- 2) Seed rate requirement of linseed is \_\_\_\_\_ kg / ha.
- 3) Sugarbeet content \_\_\_\_\_ % of sucrose.
- 4) Botanical name of French bean is \_\_\_\_\_.
- 5) The flowering in sugarcane is known as \_\_\_\_\_.
- 6) Protein content of lentil is \_\_\_\_\_.
- 7) Linseed seed content \_\_\_\_\_ % oil.
- 8) Mexican wheat (dwarf) varieties are sown at \_\_\_\_\_.





MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD  
SEMESTER END EXAMINATION

B.Sc. (Agri.)



Semester : IV(New)	Term : II	Academic Year : 2009-10
Course No. : AGRO 247	Title : Field Crops -II (Rabi Crops)	
Credits : 3(2+1)		
Day & Date : Monday, 26.4.2010	Time : 14.00 to 17.00	Total Marks : 80

- Note : 1. Solve ANY FIVE questions from SECTION "A".  
2. All questions from SECTION "B" are compulsory.  
3. All questions carry equal marks.  
4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Explain in detail the cultivation practices of irrigated wheat on following points:
- 1) Soil and climate
  - 2) Seed and sowing
  - 3) Nutrient management
  - 4) Irrigation management
  - 5) Harvesting and yield
- Q.2 Describe in detail the improved cultivation methods of *rabi* sorghum on following aspects.
- 1) Varieties
  - 2) Seed bed preparation
  - 3) Manures and fertilizers
  - 4) Irrigation management
  - 5) Harvesting and yield
- Q.3 Elaborate following points in respect of chickpea.
- 1) Seed bed preparation
  - 2) Varieties
  - 3) Seed and sowing
  - 4) Weed management
  - 5) Irrigation management
- Q.4 Explain in brief the production technologies of pre-seasonal sugarcane with respect to following points.
- 1) Selection of planting material
  - 2) Methods of planting
  - 3) Nutrient management
  - 4) Irrigation
  - 5) Signs of maturity
- Q.5 Give the information of following points about the cultivation of safflower.
- 1) Seed bed preparation
  - 2) Varieties
  - 3) Interculture
  - 4) Fertilization
  - 5) Irrigation
- Q.6 Explain the following improved techniques for forage maize production
- 1) Seed bed preparation
  - 2) Varieties
  - 3) Interculture
  - 4) Manure and fertilizers
  - 5) Irrigation

(P.T.O.)



Q.7 Write short notes (Any four):

- 1) Importance of pulses in Indian agriculture
- 2) Constraints of low productivity of oilseeds.
- 3) Malting in barley
- 4) Methods of planting in potato.
- 5) Uses of lemon grass

### SECTION "B"

Q.8 State true or false:

- 1) Mexican wheat is sown on shallow depth.
- 2) Low temperatures below  $13^{\circ}\text{C}$  at bloom in *rabi* sorghum adversely affect seed setting.
- 3) Due to hardy nature, barley can be cultivated where wheat cultivation is difficult.
- 4) Garden pea is grown for dry seeds.
- 5) In India microsperma type of lentil varieties are predominantly grown.
- 6) Dried pods of *Phaseolus vulgaris* are called rajmash.
- 7) Nipping is common practice in Bengal gram.
- 8) Green tops of sugar beets are fed directly to cattle.
- 9) Linseed is non edible oil seed crop grown in *rabi* season.
- 10) Oil obtained from citronella is used for perfume industry.

Q.9 Fill in the blanks:

- 1) Sunflower belongs to family \_\_\_\_\_.
- 2) Lentil contains \_\_\_\_\_ % protein.
- 3) Green tops of Sugar beet contain \_\_\_\_\_ acid.
- 4) The flowering in sugarcane is known as \_\_\_\_\_.
- 5) Virat is \_\_\_\_\_ type variety of gram.
- 6) Pod shattering is serious problem in \_\_\_\_\_ as compared to other *rabi* pulses.
- 7) PBNS-40 is non spiny variety of \_\_\_\_\_.
- 8) \_\_\_\_\_ is root parasitic weed of sorghum.
- 9) \_\_\_\_\_ is botanical name of oat.
- 10) Isabgol is \_\_\_\_\_ crop.

Q.10 Match the pairs:

"A"

"B"

- |                |                                 |
|----------------|---------------------------------|
| 1) Barley      | a) <i>Lens esculenta</i>        |
| 2) Lentil      | b) Linaceae                     |
| 3) French bean | c) <i>Hordeum vulgare</i>       |
| 4) Linseed     | d) Gluten                       |
| 5) Sugarcane   | e) <i>Phaseolus vulgaris</i>    |
| 6) Isabgol     | f) Cruciferae                   |
| 7) Tobacco     | g) South West Asia              |
| 8) Wheat       | h) <i>Saccharum officinarum</i> |
| 9) Lucern      | i) Solanaceae                   |
| 10) Mustard    | j) <i>Plantago ovata</i>        |





**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE**  
**SEMESTER END EXAMINATION**

**B.Sc. (Agri.)**

<b>Semester</b> : IV (New)	<b>Term</b> : II	<b>Academic Year</b> : 2012-13
<b>Course No.</b> : AGRO 247	<b>Title</b> : Field Crops – II (Rabi Crops)	
<b>Credits</b> : 3 (2+1)		
<b>Day &amp; Date</b> : Saturday, 20.04.2013	<b>Time</b> : 14.00 to 17.00	<b>Total Marks</b> : 80

- Note :**
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
  2. All questions from **SECTION "B"** are compulsory.
  3. All questions carry equal marks.
  4. Draw neat diagrams wherever necessary.

**SECTION "A"**

- Q.1 Elaborate the following points of Wheat cultivation:
- a) Field preparation
  - b) Seed and sowing
  - c) Manures and fertilizers
  - d) Harvesting and yield
- Q.2 Describe in brief cultivation of Chickpea on following points:
- a) Seed and sowing
  - b) Soil and climate
  - c) Manures and fertilizers
  - d) Irrigation
- Q.3 Describe in short cultivation of Suru Sugarcane on following points:
- a) Fertilizer management
  - b) Water management
  - c) Planting time and methods
  - d) Varieties according to maturity period
- Q.4 Give the information on following points about the cultivation of Mustard:
- a) Varieties
  - b) Seed and sowing
  - c) Fertilizer management
  - d) Rotation and mixed cropping
- Q.5 Describe the cultivation of Tobacco on following key points:
- a) Soil and climate
  - b) Manures and fertilizers
  - c) Land preparation
  - d) Water management
- Q.6 Write short notes on (Any Two)
- 1) Medical uses of Isabgol
  - 2) Seeds and sowing of potato
  - 3) Economic importance and uses of Palmarosa
- Q.7 Elaborate the cultivation practices of Safflower crop on following points:
- a) Soil and climate
  - b) Seed and sowing
  - c) Manures and fertilizers
  - d) Harvesting and yield

(P.T.O.)



Q.8 Elaborate the following points of Berseem cultivation:

- |                          |                            |
|--------------------------|----------------------------|
| a) Soil and climate      | b) Manures and fertilizers |
| c) Seed rate and spacing | d) Economic importance     |

Q.9 Describe in brief cultivation of Barley on following points:

- |                            |                         |
|----------------------------|-------------------------|
| a) Recommended varieties   | b) Seed and sowing      |
| c) Manures and fertilizers | d) Harvesting and yield |

Q.10 Elaborate the following points on Fodder maize cultivation:

- |                            |                                    |
|----------------------------|------------------------------------|
| a) Manures and fertilizers | b) Varieties                       |
| c) Soil and climate        | d) Sign of maturity and harvesting |

### SECTION "B"

Q.11 Fill in the blanks.

- 1) Lentil is originated from \_\_\_\_\_.
- 2) Lemon grass belongs to \_\_\_\_\_ family.
- 3) Botanical name of pea is \_\_\_\_\_.
- 4) Linseed contains \_\_\_\_\_ per cent oil.
- 5) Botanical name of French bean is \_\_\_\_\_.
- 6) Seed rate of Oat is \_\_\_\_\_ kg/ha.
- 7) Sunflower is a \_\_\_\_\_ sensitive crop.
- 8) Potato belongs to the family \_\_\_\_\_.

Q.12 Match the pairs.

"A"

"B"

- |                 |                                   |
|-----------------|-----------------------------------|
| (1) Lucerne     | (a) <i>Phaseolus vulgaris</i>     |
| (2) Lentil      | (b) <i>Hordeum vulgare</i>        |
| (3) Sugar beet  | (c) <i>Cruciferae</i>             |
| (4) Citronella  | (d) <i>Sorghum bicolor</i>        |
| (5) Sorghum     | (e) <i>Cymbopogon winterianus</i> |
| (6) Rape seed   | (f) <i>Lens esculenta</i>         |
| (7) Barley      | (g) <i>Medicago sativa</i>        |
| (8) French bean | (h) <i>Beta vulgaris</i>          |





**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE**  
**SEMESTER END EXAMINATION**

**B.Sc. (Agri.)**

<b>Semester</b> : IV (New)	<b>Term</b> : II	<b>Academic Year</b> : 2013-14
<b>Course No.</b> : AGRO 247	<b>Title</b> : Field Crops – II (Rabi Crops )	
<b>Credits</b> : 3 (2+1)		
<b>Day &amp; Date</b> : Friday, 02.05.2014	<b>Time</b> : 14.00 to 17.00	<b>Total Marks</b> : 80

- Note :**
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
  2. All questions from **SECTION "B"** are compulsory.
  3. All questions carry equal marks.
  4. Draw neat diagrams wherever necessary.

**SECTION "A"**

- Q.1 Explain in detail the cultivation practices of timely sown irrigated wheat on following points.
- 1) Soil and climate
  - 2) Seeds and sowing
  - 3) Weed management
  - 4) Harvesting and yield
- Q.2 Describe the cultivation practices of chickpea on following points.
- 1) Seeds and sowing
  - 2) Irrigation management
  - 3) Improved varieties
  - 4) Harvesting and yield
- Q.3 Explain the cultivation of sunflower on the following key aspects.
- 1) Soil and climate
  - 2) Seeds and sowing
  - 3) Rotation and mixed cropping
  - 4) Harvesting and yield
- Q.4 Prepare a leaflet on cultivation of Lucerne considering following points.
- 1) Seed bed preparation
  - 2) Seeds and sowing
  - 3) Nutrient management
  - 4) Cutting management and yield
- Q.5 Describe in brief the pre- seasonal cultivation of sugarcane on following points.
- 1) Planting time and methods
  - 2) Selection of seed materials
  - 3) Nutrient management
  - 4) Signs of maturity, harvesting and yield
- Q.6 Write about the improved cultivation of potato on following points.
- 1) Soil and climate
  - 2) Interculturing
  - 3) Improved varieties
  - 4) Harvesting and yield
- Q.7 Describe in brief the cultivation of *rabi* sorghum on following points.
- 1) Seed bed preparation
  - 2) Seeds and sowing
  - 3) Irrigation management
  - 4) Harvesting and yield
- Q.8 Describe in brief the cultivation practices of lemon grass on following points.
- 1) Soil and climate
  - 2) Seeds and sowing
  - 3) Fertilizer management
  - 4) Harvesting and yield
- Q.9 Describe the cultivation practices of mustard with respect to
- 1) Soil and climate
  - 2) Seeds and sowing
  - 3) Improved varieties
  - 4) Harvesting and yield



Q.10 Write short notes on (Any Four)

- 1) Importance of Pulses in Indian agriculture.
- 2) Malting in barley
- 3) Curing of tobacco
- 4) Seeds and sowing of fodder oat
- 5) Good characteristics of forage crop

**SECTION "B"**

Q.11 Fill in the blanks.

- 1) Oil content in safflower seed is \_\_\_\_\_ per cent.
- 2) Botanical name of field pea is \_\_\_\_\_.
- 3) Lucerne is originated from \_\_\_\_\_.
- 4) Safflower belongs to \_\_\_\_\_ family.
- 5) Isabgol is \_\_\_\_\_ crop.
- 6) The favourable temperature for germination of sugar beet is \_\_\_\_\_ °C.
- 7) Protein content of lentil is \_\_\_\_\_ per cent.
- 8) Mexican wheat (dwarf) varieties are sown at \_\_\_\_\_ depth.

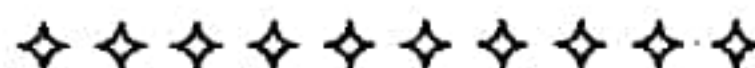
Q.12 Match the pairs.

**"A"**

- 1) French bean
- 2) Sugar beet
- 3) Tobacco
- 4) Palm rosa
- 5) Maize
- 6) Berseem
- 7) Rape seed
- 8) Lentil

**"B"**

- a) *Nicotiana tabacum*
- b) *Trifolium alexandrinum*
- c) *Beta vulgaris*
- d) *Phaseolus vulgaris*
- e) *Lens culanaris*
- f) Cruciferae
- g) *Cymbopogon martini*
- h) *Zea mays*
- i) *Medicago sativa*





**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE**  
**SEMESTER END EXAMINATION**

**B.Sc. (Agri.)**

<b>Semester</b> : IV (New)	<b>Term</b> : II	<b>Academic Year</b> : 2014-15
<b>Course No.</b> : AGRO 247	<b>Title</b> : Field Crops – II (Rabi Crops)	
<b>Credits</b> : 3 (2+1)		
<b>Day &amp; Date</b> : Wednesday, 13.05.2015	<b>Time</b> : 14.00 to 17.00	<b>Total Marks</b> : 80

- Note :**
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
  2. All questions from **SECTION "B"** are compulsory.
  3. All questions carry equal marks.
  4. Draw neat diagrams wherever necessary.



**SECTION "A"**

- Q.1 Describe in detail the cultivation practices of irrigated wheat on following points.
  - 1) Ecology
  - 2) Seeds and Sowing
  - 3) Irrigation Management
  - 4) Harvesting and yield
- Q.2 Give the information on cultivation practices of Chickpea crop with respect to
  - 1) Seeds and Sowing
  - 2) Weed control
  - 3) Irrigation Management
  - 4) Varieties
- Q.3 Explain the cultivation of safflower on following aspects
  - 1) Economic importance
  - 2) Ecology
  - 3) Seeds and sowing
  - 4) Fertilizer dose
- Q.4 Elaborate cultivation of suru sugarcane on following points.
  - 1) Fertilizer requirement
  - 2) Irrigation Management
  - 3) Signs of maturity
  - 4) Varieties
- Q.5 Describe in brief cultivation of Lucerne considering following points.
  - 1) Seed bed preparation
  - 2) Seeds and sowing
  - 3) Nutrient and Irrigation Management
  - 4) Cutting and yield
- Q.6 Prepare a brief note on potato production with following points.
  - 1) Soil and climate
  - 2) Seeds and sowing
  - 3) Varieties
  - 4) Harvesting and yield
- Q.7 Prepare a brief not on citronella cultivation.
- Q.8 Describe in brief cultivation of *rabi* sorghum on following points.
  - 1) Seed bed preparation
  - 2) Seeds and sowing
  - 3) Weed management
  - 4) Cropping system
- Q.9 Write the importance of pulses in Indian Agriculture and give the constraints in production of pulses.

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Q.10 Write short notes on (Any two).

- 1) Seeds and sowing along with varieties of fodder maize.
- 2) Importance of Barley crop
- 3) Curing in tobacco

#### SECTION "B"

Q.11 Fill in the blanks.

- 1) Nipping is done in \_\_\_\_\_ crop.
- 2) Botanical name of Isabgol is \_\_\_\_\_.
- 3) Desuckering is done in \_\_\_\_\_ crop.
- 4) Microsperma lentil is the predominant type cultivated in \_\_\_\_\_.
- 5) Propagation of Mentha is done by \_\_\_\_\_.
- 6) Sugar beet crop belongs to family \_\_\_\_\_.
- 7) Linseed contains \_\_\_\_\_ % oil.
- 8) French bean belongs to \_\_\_\_\_ family.

Q.12 Match the following pairs.

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#### "A"

- 1) Wheat
- 2) Pea
- 3) Sunflower
- 4) French Bean
- 5) Mentha
- 6) Leman Grass
- 7) Berseem
- 8) Oat

#### "B"

- a) *Pisum sativum*
- b) *Avena sativa*
- c) *Mentha arvensis*
- d) *Cymbopogon flexuosus*
- e) *Trifolium alexandrium*
- f) *Phaseolus vulgaris*
- g) Any season
- h) Gluten

◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆