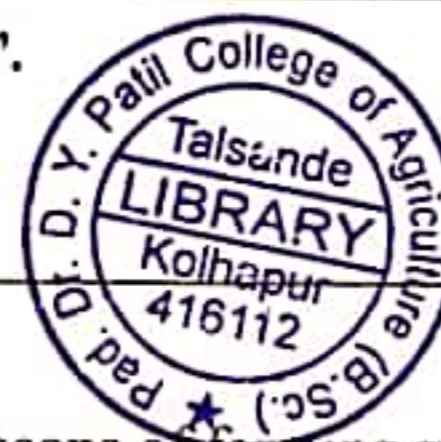


MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2016-17
Course No. : AGRO 3610	Title : Farming Systems and Sustainable Agriculture	
Credits : 2 (1+1)		
Day & Date : Saturday, 06.05.2017	Time : 09.00 to 11.00	Total Marks : 40

- 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 What is farming system? Give the objectives, concept and scope of farming system.
- Q.2 Define organic farming. Give the concept of organic farming and write the components of organic farming.
- Q.3 What is Cropping System? Give classification of Cropping Systems and explain sequential multiple cropping system.
- Q.4 Enlist the different indices used for evaluation of cropping scheme and explain economic evaluation.
- Q.5 Explain the differences between sustainable agriculture and modern agriculture.
- Q.6 Explain poor quality water. What are the most common problems that result from irrigation with poor quality water?
- Q.7 What is Integrated Farming System? Give the objectives, components and advantages of Integrated Farming System.
- Q.8 Define crop rotation and describe the principle of crop rotation.
- Q.9 Enlist the non monetary and low cost inputs and describe in detail about low cost inputs.
- Q.10 Write short notes (Any two).
 - 1) Agri-Horticulture System.
 - 2) Nutrient deficiency symptoms of nitrogen.
 - 3) Integrated pest management.

SECTION "B"

- Q.11 Define the following terms.

- | | |
|--------------------|---------------|
| 1) Mixed farming | 2) Guard crop |
| 3) Augmenting crop | 4) Sewage |

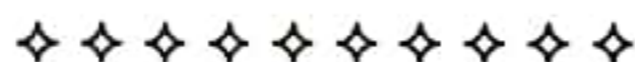
- Q.12 Match the following pairs.

'A'

- 1) Bee keeping
- 2) Problematic weed
- 3) Soil amendment
- 4) Non monetary input

'B'

- a) Gypsum
- b) Sowing time
- c) *Cyperus rotundus*
- d) *Apis mellifera*
- e) *Labeo Rohita*

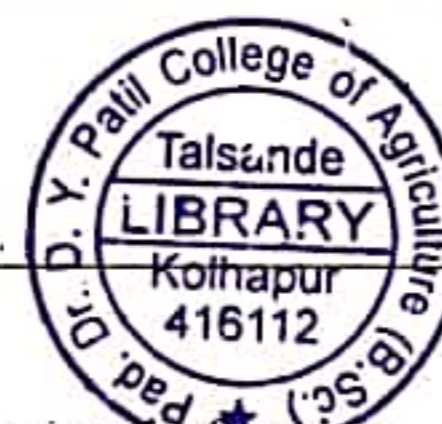


MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2016-17
Course No. : AGRO 3611	Title : Organic and Rainfed Farming	
Credits : 2 (1+1)		
Day & Date : Saturday, 29.04.2017	Time : 09.00 to 11.00	Total Marks : 40

- 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 What is organic farming? Enlist advantages and constraints of organic farming.
- Q.2 Explain contingency crop planning for aberrant weather situation.
- Q.3 Explain in brief the agronomic practices used in soil and water conservation.
- Q.4 What is water harvesting? Discuss in short the technique of water harvesting and recycling of run-off water.
- Q.5 Describe the recycling of crop residues and animal waste for organic farming.
- Q.6 Define antitranspirant and give its types used in agriculture.
- Q.7 What is green manuring? Explain its importance in agriculture.
- Q.8 Write in brief about certification, processing and marketing of organic produce.
- Q.9 Define watershed? Elaborate the concept and give the principles of watershed management.
- Q.10 Write short notes (Any two).
 - 1) Soil improvement and amendments in organic farming
 - 2) Vermi-compost.
 - 3) Drought.

SECTION "B"

- Q.11 Fill in the blanks.
 - 1) *Parthenium* is biologically controlled by _____ insect.
 - 2) *Rhizobium* culture is used for seed inoculation of _____ crops.
 - 3) In _____ farming, crops are grown on natural precipitation without irrigation.
 - 4) Farm yard manure contains _____ per cent nitrogen
- Q.12 Match the following pairs.

'A'	'B'
1) Predominant crop in rainfed area	a) Paddy
2) Erosion resisting crop	b) Dhaincha
3) Blue green algae	c) Groundnut
4) Green manuring crop	d) Bajra

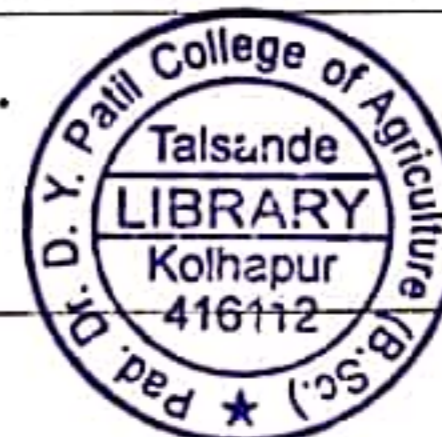
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**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION**

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2016-17
Course No. : ASDS 364	Title : Sheep and Goat Production	
Credits : 2 (1+1)		
Day & Date : Monday, 08.05.2017	Time : 09.00 to 11.00	Total Marks : 40

- 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 the importance of sheep and goat production in national economy.
- Q.2 Give the utility classification of goat breeds and describe Surti breed.
- Q.3 Describe the following breeds giving physical and economical characteristics
 - 1) Osmanabadi
 - 2) Decanni.
- Q.4 What is the requirement for goat shelter? Explain about raised level housing.
- Q.5 Explain the care and management of lactating does.
- Q.6 Describe in detail the feeding practices of lambs.
- Q.7 Enlist feeding systems and explain intensive feeding system in goats.
- Q.8 Define culling. Give the reasons for culling in sheep and goat.
- Q.9 What are the different methods of slaughtering? Explain scientific method of slaughtering.
- Q.10 Write vaccination schedule of sheep and goats.

SECTION "B"

- Q.11 Fill in the blanks.
 - 1) _____ breed of goat is called milk queen.
 - 2) Pelt is obtained from _____ breed of sheep.
 - 3) Chromosome number of sheep is _____.
 - 4) Gestation period in goat is _____ days.
- Q.12 Define the following terms.
 - 1) Docking
 - 2) Foster mother
 - 3) Offal
 - 4) Pashmina

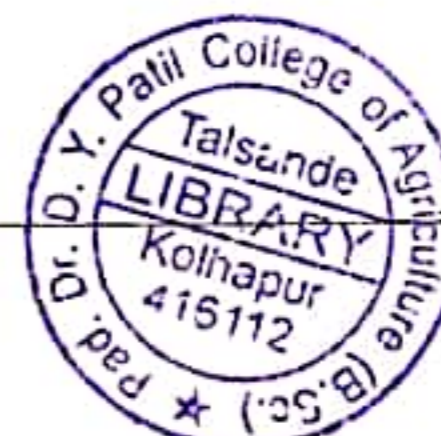
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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2016-17
Course No. : BOT 367	Title : Principles of Seed Technology	
Credits : 3 (2+1)		
Day & Date : Thursday, 27.04.2017	Time : 09.00 to 12.00	Total Marks : 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 Define seed quality. Give the characters of good quality seed.
- Q.2 Define seed technology. Enlist and write down in detail genetic principles of seed production.
- Q.3 Define seed certification. Write down the objectives of seed certification.
- Q.4 Furnish the information on following points with regards to hybrid seed production of cotton.
- 1) Planting ratio
 - 2) Roughing
 - 3) Emasculation
 - 4) Pollination
- Q.5 What is Seed Act? Write down its importance, applicability, sanctioning regulations and regulatory legislation.
- Q.6 How will you maintain the breeder seed of established variety?
- Q.7 Define seed treatments. Write down in detail types and benefits of seed treatments.
- Q.8 Describe in detail about the different stages of seed multiplication.
- Q.9 Write the importance of seed storage and describe in brief factors affecting seed longevity during storage.
- Q.10 Write short notes (Any two)
- 1) Plant Breeder's Right
 - 2) Field inspection
 - 3) Methods of seed drying

SECTION "B"

- Q.11 Define the following terms.
- 1) Seed viability
 - 2) Isolation
 - 3) Roughing
 - 4) Off type
 - 5) Synchronization
 - 6) Pollen shedder
 - 7) Dormancy
 - 8) Staggering
- Q.12 A) Answer in one sentence.
- 1) What is minimum seed moisture content for safe storage of seed?
 - 2) Name the test used for varietal identification.
 - 3) Seed Act was passed in which year?
 - 4) What is the minimum isolation distance for foundation seed production of onion?
- B) Give full forms of the following.
- 1) ISTA
 - 2) MSSC
 - 3) NSC
 - 4) MSCS

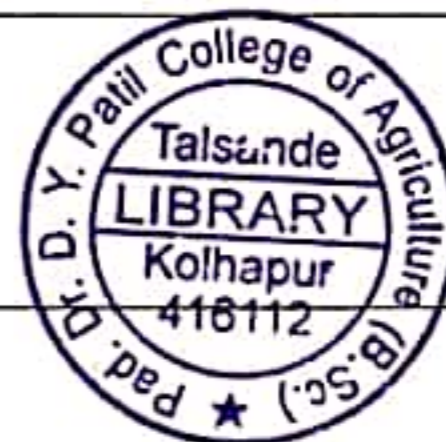
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**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION**

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2016-17
Course No. : ECON 365	Title : Agri-Business Management	
Credits : 2 (1+1)	Time : 09.00 to 11.00	Total Marks : 40
Day & Date : Tuesday, 02.05.2017		

- 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.

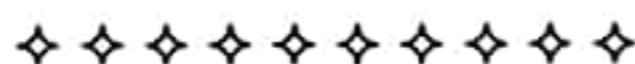


SECTION "A"

- Q.1 What is Agri-business? Explain in detail the structure of Agri-business.
- Q.2 What do you mean by Organizing? State the characteristics of partnership.
- Q.3 What is Marketing Mix? Explain the 4 P's of marketing.
- Q.4 What is product life cycle? Explain in detail the stages of product life cycle.
- Q.5 What do you mean by market segmentation? Describe the role of market segmentation.
- Q.6 What is meant by planning? Explain the steps involved in planning process.
- Q.7 Enlist the methods of project appraisal and explain any two discounted measures.
- Q.8 Discuss the need and importance of agro-based industries.
- Q.9 What is management? Explain the functions of management.
- Q.10 Write short notes (Any Two).
 - 1) Corporation
 - 2) Balance sheet
 - 3) Manager

SECTION "B"

- Q.11 Define the following terms.
 - 1) Directing
 - 2) Benefit cost ratio
 - 3) Budget
 - 4) Project
- Q.12 Fill in the blanks.
 - 1) NPW is _____ measure of project appraisal.
 - 2) The process by which ideas are transmitted to others for the purpose of affecting a desired result is called _____.
 - 3) A good communicator and an effective motivator are the characteristics of an effective _____.
 - 4) The length of time required to get back the investment on the project is called _____.

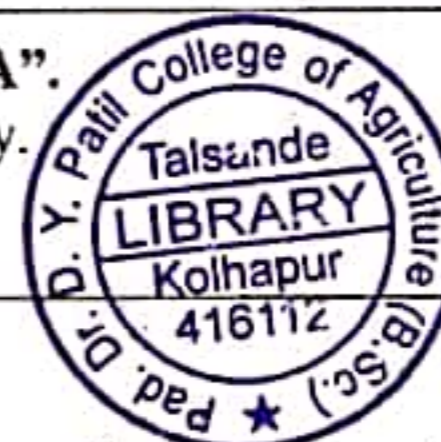


MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2016-17
Course No. : ENGG 364	Title : Protected Cultivation and Post-harvest Technology	
Credits : 2 (1+1)	Time : 09.00 to 11.00	Total Marks : 40
Day & Date : Thursday, 04.05.2017		

- 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 Enlist types of green houses based on shape, utility, construction and covering material.
- Q.2 Enlist any four components of green house environment. Write properties of ideal covering material of green house.
- Q.3 Enlist different irrigation systems used in green house. Write a short note on 'drip irrigation system.'
- Q.4 State and explain the advantages of green house.
- Q.5 What are different ingredients of root media used for green house cultivation? Write a short note on C:N ratio of root media.
- Q.6 Explain the construction and working of LSU dryer with the help of neat diagram.
- Q.7 Enlist the different types of grain storage structures. Explain in short any one.
- Q.8 Write the difference between:
 - 1) Grading and sorting.
 - 2) Inclined draper and magnetic separator.
- Q.9 State the working principle of specific gravity separator.
- Q.10 Enlist the different quality standards used for food quality. Write short note on 'AGMARK Standards'

SECTION "B"

- Q.11 Fill in the blanks.
 - 1) The spiral separates the grains as per their _____.
 - 2) A panel of glass may transmit _____ of available visible light.
 - 3) The ratio of nitrogen to carbon in root medium should be _____ for decomposition of organic matter.
 - 4) Bukhari type storage structures capacity is _____ tonnes.
- Q.12 Define the following terms.

1) Cleaning	2) Green house effect
3) Visible light	4) Seed Treatment.

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2016-17
Course No. : ENTO 364	Title : Introductory Nematology	
Credits : 2 (1+1)	Time : 09.00 to 11.00	Total Marks : 40
Day & Date : Tuesday, 09.05.2017		

- 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 Give the different symptoms of nematode damage on below ground plant parts with one example each.
- Q.2 Define Nematology. Enlist general characteristics of plant parasitic nematodes.
- Q.3 Describe the structure of body wall of plant parasitic nematode.
- Q.4 Enlist different methods of nematode management. Write in detail about physical method.
- Q.5 Explain in short different cultural methods of nematode management.
- Q.6 Describe the classification of plant parasitic nematodes on the basis of habitat with one example each.
- Q.7 Give the history of Nematology in India.
- Q.8 Write down important symptoms of Root knot nematode and Citrus nematode.
- Q.9 Give taxonomic position of Root knot nematode and Burrowing nematode.
- Q.10 Give economic importance of nematodes in agriculture.

SECTION "B"

- Q.11 Match the following pairs.

'A'

'B'

- | | |
|--------------------------------|--|
| 1) Burrowing nematode | a) Potato |
| 2) Golden cyst nematode | b) <i>Rhadinaphelenchus cocophilus</i> |
| 3) Necrosis in coconut stem | c) <i>Anguina tritici</i> |
| 4) Ear cockle disease of wheat | d) Toppling disease of banana |

- Q.12 Fill in the blanks:-

- 1) When the nematodes have two ovaries, it is called _____.
- 2) The phylum Nematoda is divided in two classes _____ and _____.
- 3) Grape fan leaf disease is transmitted by _____.
- 4) Spreading decline disease in Citrus is caused by _____.

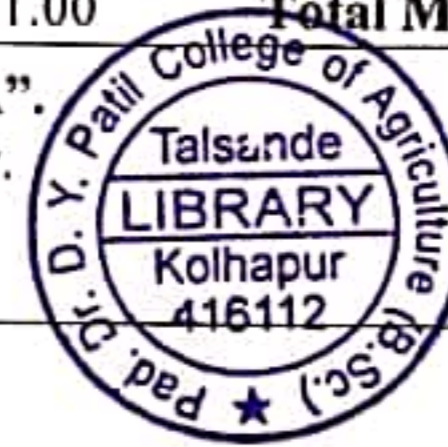


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SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2016-17
Course No. : EXTN 364	Title : Entrepreneurship Development and	
Credits : 2 (1+1)	Communication Skills	
Day & Date : Friday, 05.05.2017	Time : 09.00 to 11.00	Total Marks : 40

- 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.

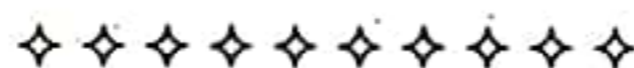


SECTION "A"

- Q.1 What is Entrepreneurship? Explain the process of Entrepreneurship Development.
- Q.2 Define communication? Explain in detail the process of communication.
- Q.3 What do you mean by SWOT analysis? Explain in brief about it.
- Q.4 Define Advertising. Enlist the types of advertisement and give the specifications of good advertisements.
- Q.5 Define entrepreneurs and explain the characteristics of entrepreneurs.
- Q.6 Write short notes.
 - 1) Ideal entrepreneur
 - 2) Primary functions of Advertisement.
- Q.7 Define market survey. Describe the step conducted for the market survey.
- Q.8 What are the steps taken by the Government to provide incentives for entrepreneurship?
- Q.9 Define project. Give the aspects of formulation to provide incentives for entrepreneurship.
- Q.10 Write short notes.
 - 1) Components of advertisement
 - 2) Writing skill

SECTION "B"

- Q.11 Fill in the blanks.
 - 1) The term entrepreneur was coined by_____.
 - 2) The word communication originated from the Latin word_____.
 - 3) The book entitled 'Dimensions of Agricultural Extension' is written by_____
 - 4) In SWOT Analysis 'S' stands for_____.
- Q.12 State True or False.
 - 1) Advertising raises the standard of living of the public.
 - 2) The word Advertising originated from the Latin word advert.
 - 3) Communication is the exchange of only new ideas.
 - 4) Advertising benefits the manufacturer, Middleman, Consumer, Salesman and the Society.



MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : VI (New)	Term : II	Academic Year : 2016-17
Course No. : HORT 364	Title : Post-Harvest Management and Value Addition of Fruits and Vegetables	
Credits : 2 (1+1)		
Day & Date : Wednesday 03.05.2017	Time : 09.00 to 11.00	Total Marks : 40

- 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 Write in brief the importance of fruit and vegetable preservation in India.
- Q.2 Give the different post harvest handling operations of fruits and vegetables for increasing the post harvest life.
- Q.3 Enlist the different methods of determination of harvest maturity indices of fruits and vegetables with suitable examples.
- Q.4 Explain in brief points to be considered for selection of site for fruit and vegetable preservation unit.
- Q.5 Define pre-cooling. What are different methods of pre-cooling? Comment on vacuum cooling.
- Q.6 State the principles of preservation and explain the chemical method of preservation.
- Q.7 Comment on the factors responsible for deterioration of horticultural produce.
- Q.8 Write short notes (Any two).
 - 1) Blanching
 - 2) Degreening
 - 3) Grading of fruits
- Q.9 Define canning and explain in brief the complete procedure for canning of fruits.
- Q.10 Define fermentation. Give different methods and describe in brief the acetic acid fermentation.

SECTION "B"

- Q.11 Define the following terms.

1) Sterilization	2) Preservation
3) Brining	4) Ripening
- Q.12 Do as directed.
 - 1) Examples of climacteric fruits.
 - 2) Chemical used for hastening the ripening.
 - 3) Criteria (indices) for judging the harvesting of garlic.
 - 4) Which bacteria produce the poisonous substance 'Botulin'?

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