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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

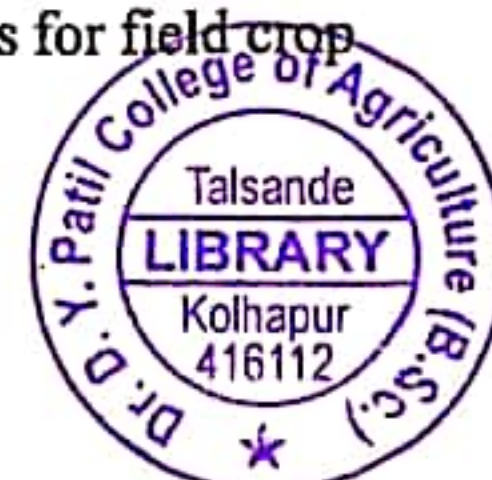
B.Sc. (Agri.)

Semester : VI (Old)	Term : II	Academic Year : 2017-18
Course No. : AGRO 3610	Title : Farming Systems and Sustainable Agriculture	
Credits : 2 (1+1)		
Day & Date : Friday, 04.05.2018	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 Define farming system. Explain the diversified farming with its advantages and disadvantages.
- Q.2 Define cropping system and enlist its classification.
- Q.3 What is organic farming? Enlist the principles of organic farming.
- Q.4 Define sustainable agriculture? Give the advantages and disadvantages of sustainable agriculture.
- Q.5 Which points are considered for choosing enterprises in IFS? Give one example of integrated farming system model for dry land including various components.
- Q.6 Enlist the problems created by using poor quality water in soil. Explain in brief remedies to overcome these problems.
- Q.7 Explain in detail the low cost technology and non monetary inputs for field crop production.
- Q.8 Write short notes.
- a) Amelioration of acid soils
 - b) Advantages of Integrated Farming System (IFS)
- Q.9 Define intercropping and give the indices for assessment of yield advantage and Economics.
- Q.10 Answer the following.
- a) Benefits of organic farming
 - b) Waterlogged soil and problems associated with water logging



SECTION "B"

- Q.11 Define the following terms.
- 1) Alley cropping
 - 2) Cropping scheme
 - 3) Lay farming
 - 4) Minimum tillage
- Q.12 State true or false and correct it if necessary.
- 1) Municipal refuse is sewage and sludge with small quantities of water.
 - 2) Zero tilled soils are heterogeneous in structure with more number of earthworms.
 - 3) IPM does not reduce the need for agrochemicals.
 - 4) Organic farming has no relation with sustainable agriculture.

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: VI (Old)	Term	: II	Academic Year	: 2017-18
Course No.	: AGRO 3611	Title	: Organic and Rainfed Farming		
Credits	: 2 (1+1)	Time	: 09.00 to 11.00	Total Marks	: 40
Day & Date	: Thursday, 26.04.2018				

- 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 dry land agriculture. Differentiate between dry land farming and rainfed farming.
- Q.2 What do you mean by biofertilizer? Give its classification and enlist the advantages of biofertilizer application.
- Q.3 Define Green manuring. Write down its advantages and disadvantages.
- Q.4 Define organic farming. State advantages and disadvantages of organic farming.
- Q.5 Define cropping system. Explain different types of cropping systems.
- Q.6 Define drought. Suggest measures for adoption to overcome the drought.
- Q.7 What are the basic standards for crop production in organic farming?
- Q.8 Write in detail agronomic measures for soil and water conservation in rainfed farming.
- Q.9 Define watershed. Enlist different principles of watershed management.
- Q.10 What is Integrated Weed Management (IWM) in organic farming? Enlist the different methods of IWM and state the different biocontrol agents used to control weeds in organic farming.

SECTION "B"

- Q.11 Define the following terms.
- | | |
|---------------------|--------------------|
| 1) Intercropping | 2) Antitranspirant |
| 3) Farm yard manure | 4) Soil amendments |
- Q.12 Do as directed.
- 1) Give name of two accredited certifying agencies of the organic farming.
 - 2) Write full form of IFOAM.
 - 3) Write any two names of the antitranspirant
 - 4) Write full form of NPOP.

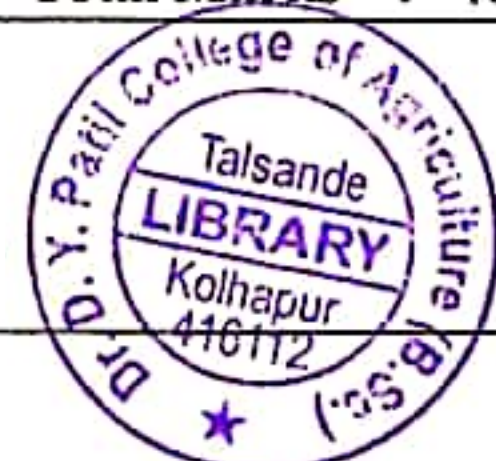
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B.Sc. (Agri.)

Semester : VI (Old)	Term : II	Academic Year : 2017-18
Course No. : ASDS 364	Title : Sheep and Goat Production	
Credits : 2 (1+1)		
Day & Date : Saturday, 05.05.2018	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 detail about scope and importance of Sheep and Goat in Indian economy.
- Q.2 Write in short about different feeding practices followed in goat.
- Q.3 Write in detail about vaccination programme for goat.
- Q.4 Define culling. Discuss various factors for culling in Sheep and Goat.
- Q.5 Write short notes (Any Two).
- a) Osmanabadi goat b) Mohair c) Jamunapari goat
- Q.6 Define flushing. Discuss various advantages of flushing and write in short about flushing ration.
- Q.7 Describe in detail the breeding season in goat.
- Q.8 Explain in detail care and management of new born kids.
- Q.9 Enlist different methods of slaughter? Explain in detail Ritual method of slaughter.
- Q.10 Give detail classification of goat on the basis of utility.

SECTION "B"

- Q.11 Fill in the blanks.
- 1) The size of sick animal shed should be _____.
 - 2) _____ number of chromosome present in sheep.
 - 3) A system of feeding young animals prior to weaning in order to consume additional feed obtained from nursing is known as _____.
 - 4) Gestation period in sheep and goat is _____ days.
- Q.12 State True or False.
- 1) Goat meat is called Chevron.
 - 2) Act of mating in sheep is called Topping.
 - 3) Black Bengal is famous for milk purpose.
 - 4) Halal method of slaughter is followed in Spain, some parts of Italy and Mexico.

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B.Sc. (Agri.)

Semester : VI (Old)	Term : II	Academic Year : 2017-18
Course No. : BOT 367	Title : Principles of Seed Technology	
Credits : 3 (2+1)		
Day & Date : Wednesday, 25.04.2018	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 What is seed technology? Enlist different branches of seed technology and write in short the goals of seed technology.
- Q.2 Define seed certification. Write in brief duties and responsibilities of seed certification officers.
- Q.3 Explain in short genetic causes of deterioration of improved variety and enlist the important safeguards for maintaining genetic purity during seed production.
- Q.4 What is seed marketing? What are the major components of seed marketing? Give the factors affecting seed marketing.
- Q.5 What is mean by seed processing? Describe its important. Enlist various steps in seed processing.
- Q.6 Explain different stages of the seed multiplication.
- Q.7 Write short notes (Any Two).
- a) Seed Sampling
 - b) Seed Health
 - c) National Seed Programme
- Q.8 Distinguish between (Any Two).
- a) Seed and grain
 - b) Breeder's and foundation seed
 - c) Official sample and working sample
- Q.9 What is field inspection? Explain different objectives and stages of field inspection.
- Q.10 Describe in short hybrid seed production of sorghum on following points.
- a) Land and isolation requirement
 - b) Seed source
 - c) Spacing and planting ratio
 - d) Synchronisation of male and female
 - e) Roughing
 - f) Harvesting and seed yield

(P.T.O.)

SECTION "B"

Q.11 Define the following terms.

- | | |
|----------------|---------------------|
| 1) Seed | 2) Scarification |
| 3) Isolation | 4) Dead seed |
| 5) Lot | 6) Composite sample |
| 7) Germination | 8) Volunteer plant |

Q.12 Give full form of the followings.

- | | |
|----------|------------|
| 1) MSSC | 2) ISTA |
| 3) NSC | 4) ICAR |
| 5) NBPGR | 6) FAO |
| 7) STL | 8) ICRISAT |

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**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
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B.Sc. (Agri.)

Semester : VI (Old)	Term : II	Academic Year : 2017-18
Course No. : ECON 365	Title : Agri-Business Management	
Credits : 2 (1+1)	Time : 09.00 to 11.00	Total Marks : 40
Day & Date : Friday, 27.04.2018		

- 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 do you mean by agri-business? Explain the system of agri-business.
- Q.2 Define project. State and describe the phases of project cycle.
- Q.3 What is management? Enlist and describe the functions of management.
- Q.4 What do you mean by marketing? Describe the concept of marketing.
- Q.5 What do you mean by planning? Enlist the steps in planning process and explain any two.
- Q.6 What do you mean by marketing mix? Explain 4 P's of marketing.
- Q.7 Define product life cycle. Discuss the stages of product life cycle.
- Q.8 What do you mean by balance sheet? Explain the precaution in preparing the balance sheet of business farm.
- Q.9 Write short notes (Any Two).
 - a) Organization
 - b) Communication
 - c) Methods of project appraisal
- Q.10 Discuss the importance of agro-based industries. Give the steps in establishing agro-based industries.

SECTION "B"

- Q.11 Define the following terms.
 - 1) Co-operative
 - 2) Directing
 - 4) Motivation
 - 3) Segmentation
- Q.12 Fill in the blanks.
 - 1) An _____ is the process of recording, classifying and summarizing business transaction.
 - 2) A good _____ and an effective motivator are the characteristics of an effective manager.
 - 3) At list two members are required to start a _____ business.
 - 4) _____ are daily requirement of every human being.



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B.Sc. (Agri.)

Semester	: VI (Old)	Term	: II	Academic Year	: 2017-18
Course No.	: ENGG 364	Title	: Protected Cultivation and Post-harvest Technology		
Credits	: 2 (1+1)				
Day & Date	: Wednesday, 02.05.2018	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 Enlist the different types of dryer. Explain in detail flat bed dryer.
- Q.2 Classify the greenhouse based on shape, utility, construction and covering material.
- Q.3 Enlist the different types of cooling system used in greenhouse. Explain in detail fan and pad cooling system.
- Q.4 What are the different irrigation systems in greenhouse? Explain in detail overhead sprinklers system.
- Q.5 Enumerates the properties of an ideal greenhouse covering material.
- Q.6 Enlist the different types of grain storage structure. Explain in brief Bukhari type storage structure.
- Q.7 Explain the importance of drying.
- Q.8 Enlist the different types of separator. Explain in detail inclined draper belt separator.
- Q.9 Give the general sequence of seed processing operation.
- Q.10 What are the advantages of using greenhouse?

SECTION "B"

- Q.11 Define the following terms.
- 1) Cleaning
 - 2) Ventilation
 - 3) Greenhouse effect
 - 4) Food adulteration
- Q.12 Fill in the blanks.
- 1) _____ separator separates the grain as per their roundness.
 - 2) The light intensity is measured by the international unit known as _____.
 - 3) In _____ mill, the grain size is reduced by shearforce.
 - 4) The ratio for nitrogen to carbon should be _____ for decomposition of organic matter.



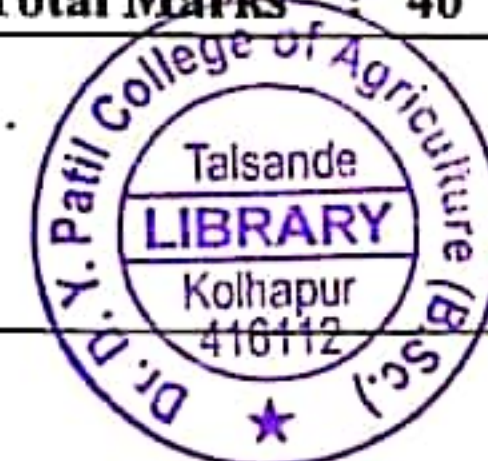
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B.Sc. (Agri.)

Semester : VI (Old)	Term : II	Academic Year : 2017-18
Course No. : ENTO 364	Title : Introductory Nematology	
Credits : 2 (1+1)		
Day & Date : Monday, 07.05.2018	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 Define Nematology and describe general characteristic of nematode.
- Q.2 Describe the Economic importance of plant parasitic nematodes in Agriculture with suitable examples.
- Q.3 Write different layers of outer body tube of nematode and explain in detail cuticle layers.
- Q.4 Explain in detail digestive system of nematode with well labeled diagram.
- Q.5 Enlist different methods of nematode management. Describe in detail cultural method with suitable example.
- Q.6 Enlist the different species of cyst nematode. Give host range, symptom of damage and control measures for cereal cyst nematode.
- Q.7 Enlist the nematode pathogen interaction and explain in detail nematode-virus interaction.
- Q.8 Classify the plant parasitic nematodes on the basis of Attack/Feeding habit with suitable examples.
- Q.9 Describe in detail above ground symptoms caused by different nematodes on different hosts.
- Q.10 Write short notes (Any Two).
- a) Root knot nematode
 - b) Historical events in nematology in India
 - c) Biology of nematodes
 - d) Entomopathogenic nematodes

SECTION "B"

- Q.11 Fill in the blanks.
- 1) A chemical lethal to nematodes is called_____.
 - 2) _____ nematode is responsible for Banana decline or Banana root rot disease.
 - 3) The male nematode with two testis are called_____.
 - 4) Caudal alae is found in the _____ body region.
- Q.12 Match the following pairs.

"A"

- 1) Needham
- 2) Nematode
- 3) Ufra disease of rice
- 4) *Rotylenchulus reniformis*

"B"

- a) Eelworm
- b) Semi endo parasite
- c) *Anguina tritici*
- d) *Ditylenchus angustus*

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B.Sc. (Agri.)

Semester : VI (Old)	Term : II	Academic Year : 2017-18
Course No. : EXTN 364	Title : Entrepreneurship Development and Communication Skills	
Credits : 2 (1+1)		
Day & Date : Thursday, 03.05.2018	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 Define Entrepreneur. Explain characteristics of entrepreneur.
- Q.2 What is communication? Explain the process of communication with neat label diagram of SMCRE model.
- Q.3 What do you mean by entrepreneurial behavior? Explain factors affecting entrepreneurial behavior.
- Q.4 What do you mean by SWOT analysis? Explain it in brief.
- Q.5 What is Entrepreneurship? Explain process of Entrepreneurship Development.
- Q.6 Define Advertisement. Explain the various functions of advertisement.
- Q.7 Define market survey and elaborate different steps in conducting market survey.
- Q.8 Describe the points to be considered in project description for the formulation of proposal.
- Q.9 Enlist various government schemes and incentives for promotion of entrepreneurship. Explain any two of them.
- Q.10 Write short notes (Any Two).
- a) Write the letter for calling quotation
 - b) District Industries Centre (DICs)
 - c) Evaluation

SECTION "B"

- Q.11 Fill in the blanks.
- 1) National institute for Entrepreneurship and Small Business Development (NIESBUD) is located at _____.
 - 2) _____ is regular systematic collection and analysis of information to track the progress of programme implementation against pre-set targets and objectives.
 - 3) The word communication is originated from Latin word _____.
 - 4) _____ is the process or cycle of introducing a new product into the market.
- Q.12 Give full forms of the following.
- 1) SSIB
 - 2) SEZ
 - 3) SIDBI
 - 4) EXIM Bank

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B.Sc. (Agri.)

Semester	: VI (Old)	Term	: II	Academic Year	: 2017-18
Course No.	: HORT 364	Title	: Post-Harvest Management and Value Addition of Fruits and Vegetables		
Credits	: 2 (1+1)				
Day & Date	: Saturday, 28.04.2018	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 Enlist different types of the maturity and explain any four different maturity indices with suitable example.
- Q.2 Enlist modern methods of storage for fruits and vegetables. Write in brief about working of controlled atmospheric (CA) storage, its advantages and disadvantages.
- Q.3 Write short notes (any Two).
- a) Quality control of processed products
 - b) Importance of packaging materials
 - c) Methods for hastening and delaying ripening process
- Q.4 Write the procedure for preparation of jelly from guava fruits.
- Q.5 Define ripening. Write in brief about important physico-chemical changes occurring during ripening.
- Q.6 Enlist various processed product prepared from tomato and write the procedure of tomato ketchup preparation.
- Q.7 Enlist different pre-harvest factors affecting post harvest quality of fruits and vegetable. Write in brief environmental factors.
- Q.8 Enlist factors responsible for spoilage of fruits and vegetable. Describe in brief the enzymatic spoilage.
- Q.9 Enlist different methods of preservation of fruits and vegetables. Describe preservation by salt.
- Q.10 Explain zero energy cool chamber storage of fruits and vegetables with diagram.

SECTION "B"

- Q.11 Define the following terms.
- 1) Maturity
 - 2) Respiration
 - 3) Senescence
 - 4) Post-harvest Technology
- Q.12 State True or False.
- 1) Pungency of onion is due to presence of allyl propyl disulphide.
 - 2) Apple is a climacteric fruit.
 - 3) As per FPO specifications, percentage of TSS (w/w) in the final product of preserve should be 75%.
 - 4) Curing is done to remove the field heat of the harvested product.

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