



A.M.A.L. COLLEGE

ANAKAPALLE - 531 001. Ph : 220269 & 220634

NAAC ACCREDITED B⁺⁺ GRADE

Estd:1953

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To

The Registrar,
Andhra University,
Visakhapatnam

27.2.22

Sir,

Sub:A.M.A.L college - Anakapalle - B.Vocational courses - **Agriculture** -
Submission of course outlines and model papers(4th Semester) -
regarding.

It is submitted that herewith I am submitting the course outlines and model papers pertaining to 2nd year 4th semester(2020-21 admitted batch) of **Agriculture** B.vocational course.

Thanking you,

Encl:

Course outlines and model papers
in duplicate(As hard copies and in CDs)

Yours faithfully,

PRINCIPAL
A.M.A.L.COLLEGE
ANAKAPALLE



ANDHRA UNIVERSITY
B. VOCATIONAL COURSE
AGRICULTURE
2020-21 Admitted Batch
II Year Semester- IV
PRINCIPLES OF ORGANIC FARMING
MODEL QUESTION PAPER
SECTION - A

Time: 3 Hours

Maximum: 75 Marks

Answer any FIVE questions. Each question carries equal marks.

(5*5=25)

1. What are the essential characteristics of Organic Farming?

2. What is Vermicomposting and write about Vermiculture.

3. What are the desirable characters of Green Manuring?

4. Write about the use of Bio fertilizers in Organic Farming?

5. Write about weed management in Organic farming.

6. Write briefly about Regenerative Agriculture.

7. Write about the Economic considerations of Organic Culture.

8. Write about different types of Biofertilizers used in Organic Farming.

SECTION - B

Answer all the questions. Each question carries TEN marks.

(5*10=50)

1. a) Write about the Principles of Organic farming.

(OR)

b) What are the components in organic farming for Sustainable crop production?

2. a) What are the Advantages of Organic farming?

(OR)

b) What are the Government policies on promoting Organic farming?

3. a) Write about different types of Organic manures.

(OR)

b) Write briefly about Biological methods of Insect pest Management in Organic farming?

4. a) Write about the Operational structure of NPOP.

(OR)

b) Write about the Accreditation procedures for Organic Products.

5. a) Write about the concepts of Organic ecosystem.

(OR)

b) Write about the Marketing and Export potential of Organic farming.

ANDHRA UNIVERSITY
B. VOCATIONAL COURSE
AGRICULTURE
2020-21 Admitted Batch
II Year Semester- IV
FUNDAMENTALS OF CROP PHYSIOLOGY
MODEL QUESTION PAPER
SECTION - A

Time: 3 Hours

Maximum: 75 Marks

Answer any FIVE questions. Each question carries equal marks.

(5*5=25)

1. Write about the structure and functions of Endoplasmic Reticulum.

2. Write about the Factors effecting the Water use Efficiency.

3. Write about Non cyclic Phosphorylation.

4. Write Briefly about Biological Nitrogen fixation.

5. Describe the classification of plants based upon Photoperiodism.

6. Write about the types of Senescence.

7. What are the factors effecting Fruit ripening and write about climacteric and non-climacteric fruits.

8. Write about the metabolic changes during Seed development.

SECTION - B

Answer all the questions. Each question carries TEN marks.

(5*10=50)

1. a) Elaborate the structure and function of Cell wall in plants.

(OR)

b) Write about the Chloroplasts and describe its ultra structure.

2. a) Write about the components of Water potential and its Importance.

(OR)

b) Write briefly about the Functions of NPK in nutrition of Plants.

3. a) Write about C4 Photosynthetic carbon assimilation cycle.

(OR)

b) Explain Oxidative Pentose pathway and its significance.

4. a) Write about the Physiological role of Auxins in Plants.

(OR)

b) Write about Physiological and Biochemical changes that occur during Senescence and methods to prevent leaf and flower senescence.

5. a) Elucidate the remedial measures for breaking Seed dormancy.

(OR)

b) Write about tests of seed viability and vigor.

ANDHRA UNIVERSITY
B. VOCATIONAL COURSE
AGRICULTURE
2020-21 Admitted Batch
II Year Semester- IV
PRINCIPLES OF SEED TECHNOLOGY
MODEL QUESTION PAPER
SECTION - A

Time: 3 Hours

Maximum: 75 Marks

Answer any FIVE questions. Each question carries equal marks. (5*5=25)

1. Explain the safe guards for maintenance of genetic purity of seed.

2. Write a note on seed production methods for hybrids.

3. Explain seed production technology of Cotton.

4. What is seed dormancy? Explain different types seed dormancy?

5. Write about different classes of seeds.

6. Write about seed production technology of cucurbits.

7. What are the factors affecting quality seed production.

8. What is senescence? Write about significance along with it's causes.

SECTION - B

Answer all the questions. Each question carries TEN marks. (5*10=50)

1. a) Give a detailed note on seed production technology of Rice.

(OR)

b) Discuss the procedure followed for Maize seed production technology.

2. a) Explain generation system of seed multiplication in seed supply chain.

(OR)

b) What is seed drying and explain different methods of seed drying along with principles and requirements.

3. a) Write about seed production technology of Tomato.

(OR)

b) Describe planning, layout and establishment of seed processing plant.

4. a) Write about seed cleaning and grading.

(OR)

b) Write a detailed note on importance, types and equipment required for seed treatment.

5. a) i) Describe the causes of varietal deterioration.

ii) Write the procedures for seed production of varieties.

(OR)

b) What is seed? Explain seed structure and phases of it's germination.

ANDHRA UNIVERSITY
B. VOCATIONAL COURSE
AGRICULTURE
2020-21 Admitted Batch
II Year Semester- IV
BREEDING OF FIELD CROPS
MODEL QUESTION PAPER
SECTION - A

Time: 3 Hours

Maximum: 75 Marks

Answer any FIVE questions. Each question carries equal marks.

(5*5=25)

1. Draw the flowcharts for origin of Diploid, Tetraploid and Hexaploid Wheat.
2. Write about the latest classification of Sorghum given by Harlan and De Wet.
3. Write about the 3 basic type of crosses made in Hybridization of Sugar cane?
4. What are the main reasons for Low yields of Pulses compared to Cereals.
5. Write about the Progenitors and desirable plant type in Chick pea.
6. Write about the types of cultivated species in Cotton.
7. Write about the classification of Cultivated Species of Rice?
8. Write about Breeding techniques of Finger millet.

SECTION - B

Answer all the questions. Each question carries TEN marks.

(5*10=50)

1. a) Write about the breeding techniques for developing Hybrid Rice.
(OR)
b) Elucidate the Objectives of Plant Breeding.
2. a) Write about the Objectives for Breeding of Red Gram.
(OR)
b) Write about the classification of Ground Nut and why it is called as an unpredictable crop.
3. a) Explain Head to row and remnant seed method and Heterosis breeding in Sunflower.
(OR)
b) Write about the Taxonomy of Brassica crops and their economic characters.
4. a) Write elaborately about the Breeding procedures in Cotton.
(OR)
b) Write about bolting and Photoperiod induction in Sugar beet.
5. a) Write about the Breeding procedures for disease and abiotic stress resistance in Sugar cane.
(OR)
b) Write about the Breeding objectives of Soybean.

**B. Vocational course
AGRICULTURE
2020-21 Admitted Batch II
Year Semester – IV
INTRODUCTION TO PRODUCTION ECONOMICS AND FARM
MANAGEMENT
MODEL QUESTION PAPER**

Time: 3 Hours

Maximum: 75 Marks

SECTION – A

Answer any **FIVE** questions. Each question carries equal marks. (5*5 = 25)

1. Define farm management? Explain it's scope.
2. What is farm plan? What are the key features of good farm plan.
3. Write down the advantages and disadvantages of diversified farming.
4. Differentiate between farm budgeting and linear programming.
5. What is production economics and list out it's objectives.
6. Differentiate law of variable proportions and returns to scale.
7. What is isoquant? List out it's characteristics.
8. What are the basic production problems?

SECTION – B

Answer **All** the questions. Each question carries **TEN** marks (5*10 = 50)

1. a) List out the economic principles applied in farm management. Explain detail law of variable proportions.
(OR)
b) Elaborate systems of farming in detail
2. a) Explain law of returns with the help of graphs and tables.
(OR)
b) i) What is risk and uncertainty. Explain the sources of risk and uncertainty
ii) What are methods reducing the risk and uncertainty.
3. a) Explain the key features of three stages of production function.
(OR)
b) Explain the least cost combination of inputs by graphical, algebraic or arithmetic methods.
4. a) Explain and draw different types of product-product relationships.
(OR)
b) What is farm planning and budgeting. Explain the basic steps in farm planning and budgeting.
5. a) i) Production possibility curve
ii) Ridge lines
(OR)
b) Determine optimum combination of products in algebraic, graphic or tabular methods.

ANDHRA UNIVERSITY
B. VOCATIONAL COURSE
AGRICULTURE
2020-21 Admitted Batch
II Year Semester- IV
HORTICULTURE
MODEL QUESTION PAPER
SECTION - A

Time: 3 Hours

Maximum: 75 Marks

Answer any FIVE questions. Each question carries equal marks.

(5*5=25)

1. Write about the influence of Humidity and Rainfall on Horticulture crops.
2. Write about the advantages of Seed Propagation.
3. What are the types of propagation by Separation?
4. Write about T or Shield budding.
5. What are the responses of plants to pruning?
6. What are the cultural causes for unfruitfulness in fruit trees?
7. What is parthenocarpy and write about its types.
8. Write briefly about the maintenance of lawn.

SECTION - B

Answer all the questions. Each question carries TEN marks.

(5*10=50)

1. a) Write about divisions of Horticulture with examples.
(OR)
b) What are the criteria for the selection of a site for orchard establishment?
2. a) Explain about different systems of planting in Horticultural crops.
(OR)
b) Explain different types of Layerings in Plant propagation.
3. a) Write about the systems of Training in Fruit crops with merits and demerits.
(OR)
b) Write about the Practical applications of Plant growth regulators in Horticulture crops.
4. a) Write briefly about the types of Vegetable gardens.
(OR)
b) Mention various methods of Irrigation of Horticultural crops and explain about Drip and sprinkler Methods.
5. a) Write about the importance of Horticulture crops in National economy.
(OR)
b) Write about different methods of fertilizer application in Horticultural crops.