

S.G.S COLLEGE (NAAC B-+++), JAGGAYYAPET
SYLLABUS FOR THE B.VOC IN AGRICULTURE
NSQF LEVEL 5 DIPLOMA
SEMESTER – II

AGR 201: CROP PRODUCTION TECHNOLOGY – I

3+2 CREDITS

(CEREALS, MILLETS AND PULSES) (OIL SEEDS, FIBER, SUGAR, TOBACCO AND FODDER CROPS)

Theory

3 CREDITS

Geographical distribution, economic importance, area, production and productivity; Soil and climatic requirements, climate resilience; Varieties, cultural practices and yield of cereal, millet and pulse crops; Cereals, rice, wheat, barley, maize, sorghum, pearl millet, finger millet, proso millet, little millet, kodo millet, foxtail millet and barnyard millet; Pulses, pigeonpea, greengram, blackgram, bengalgram, lentil, peas, horsegram and cowpea; castor, sunflower, groundnut, Gingelly, jute, kapok, sunhemp, manila hemp, Sugarbeet, sugarcane, tobacco, napier, lucrene grass

Practical

2 CREDITS

Rice nursery preparation, transplanting of rice, sowing of pigeonpea , greengram and maize, effect of seed size on germination and seedling vigour of cereal and pulse 20 crops, effect of sowing depth on germination of cereal and pulse crops, identification of weeds in cereal and pulse crops, top dressing and foliar feeding of nutrients, study of yield contributing characters and yield calculation of cereal and pulse crops, study of crop varieties and important agronomic experiments at experimental farm, morphological description of cereal and pulse crops, visit to research centers of related crops.

SMT. GENTELA SAKUNTALAMMA COLLEGE (NAAC “B++”)

Aided College

Vidyanagar, Jaggayyapet-521175,Krishna(Dist.),Andhra Pradesh.

Theory Exam Model Question Paper Subject: CROP PRODUCTION TECHNOLOGY-I SEMESTER – II

Max.Marks=75

Answer any five questions

5X5= 25 M

1. Write about Rice Nursery Preparation.
2. Classification of Wheat Crop.
3. Write about cultural practices in crops.
4. Write about economic importance of sugar cane.
5. What is transplanting technique? Which crops its useful?.
6. Write about rooting of sugarcane.
7. Write about forage crops.
8. What is the use of fertilizer application in crops?

Answer the following

5X10= 50 M

1. Write about morphology of sunflower.
Or
Write about morphology of Bengal gram.
2. Write about morphology of sugar crops.
Or
Write about morphology of green gram.
3. Write about morphology of sugar cane.
Or
Write about morphology of red gram.
4. Write about morphology of red gram.
Or
Write about medicinal and aromatic crops.
5. Write about morphology of wheat crops.
Or
Write about morphology of horse gram.

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Practical Exam Model Question Paper
Subject: CROP PRODUCTION TECHNOLOGY-I
SEMESTER – II

Max.Marks=50

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| 1. Write about paddy nursery preparation. | 12M |
| 2. Write about Morphology of wheat crop. | 12M |
| 3. Identify the following weeds | 3X4=12M |
| 4. Record | 5M |
| 5. Viva voce | 3M |
| 6. Report on visit to research centers | 6M |

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NSQF LEVEL 5 DIPLOMA
SEMESTER – II

AGR202 : FUNDAMENTALS OF HORTICULTURE

3+2 CREDITS

Theory

3 CREDITS

Horticulture-Its definition and branches, Importance and scope of horticulture, Horticultural and botanical classification, Climate and soil for horticultural crops, Plant propagation-methods (sexual & asexual), propagating structures; separation, division, grafting, budding, layering), High density planting; Use of rootstocks; Orchard establishment; (Principles & Layout) Principles and methods of training and pruning, Juvenility and flower bud differentiation; Unfruitfulness; pollination, pollinizers and pollinators; fertilization and parthenocarpy; Vegetable gardens & ornamental garden types and parts; Lawn making, Use of plant bio-regulators in horticulture, Irrigation methods in horticulture crops, Fertilizers application-methods.

Practical

2 CREDITS

Identification of garden tools, Identification of horticultural crops, Preparation of seed bed/nursery bed, Practice of sexual and asexual methods of propagation, Layout and planting of orchard plants, Training and pruning of fruit trees, Transplanting and care of vegetable seedlings, Making of herbaceous and shrubbery borders, Preparation of potting mixture, potting and repotting, Fertilizer application in different crops, Visits to commercial nurseries/orchard.

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Theory Exam Model Question Paper Subject: FUNDAMENTALS OF HORTICULTURE SEMESTER – II

Max.Marks=75

Answer any five questions

5X5= 25 M

1. Write about horticulture tools and importance
2. What is potting and repotting ?
3. What is sexual propagation ?
4. Write about asexual propagation methods in plants .
5. Write about budding.
6. Write five fruit names and scientific names.
7. What is landscaping.
8. What are root stock & scion?

Answer the following

5X10= 50 M

1. Write about seed treatment techniques.
Or
Write about grafting methods.
2. Write about propagation structures.
Or
Write about layering methods.
3. What is micro propagation.
Or
Preparation of nursery beds for raising root stocks & seedlings.
4. Write about Growth regulators in plants.
Or
Write about specialized plants parts used in propagation.
5. What is training and pruning?
Or
Bearing habits of horticulture crops.

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Practical Exam Model Question Paper
Subject: FUNDAMENTALS OF HORTICULTURE
SEMESTER – II

Max.Marks=50

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|--|--------|
| 1. Write the procedure for seed treatment technique. | 10M |
| 2. Describe the given propagation method | 10M |
| 3. Describe the preparation of potting mixture | 10M |
| 4. Identify the following horticultural tools | 3X3=9M |
| 5. Record | 5M |
| 6. Viva Voice | 3M |
| 7. Report on Visits to commercial nurseries/orchard | 3M |

Note Q.No 2 may be from any one method of Layering, grafting, cutting

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SEMESTER – II

AGR203: ANIMAL HUSBANDRY

3+2 CREDITS

Theory

3 CREDITS

Role of live-stock in the national economy. Reproduction in farm animals and poultry. Housing principles, space requirements for different species of livestock and poultry. Management of calves, growing heifers and milch animals. Management of sheep, goat and swine. Incubation, hatching and brooding. Management of growers and layers. Important Indian and exotic breeds of cattle, buffalo, sheep, goat, swine and poultry. Improvement of farm animals and poultry. Digestion in livestock and poultry. Classification of feedstuffs. Proximate principles of feed. Nutrients and their functions. Feed ingredients for ration for livestock and poultry. Feed supplements and feed additives. Feeding of live-stock and poultry. Introduction of live-stock and poultry diseases. Prevention (including vaccination schedule) and control of important diseases of livestock and poultry.

Practical

2 CREDITS

External body parts of cattle, buffalo, sheep, goat, swine and poultry. Handling and restraining of live-stock. Identification methods of farm animals and poultry. Visit to IDF and IPF to study breeds of live-stock and poultry and daily routine farm operations and farm records. Judging of cattle, buffalo and poultry. Culling of live-stock and poultry. Planning and layout of housing for different types of live-stock. Computation of rations for livestock. Formulation of concentrate mixtures. Clean milk production, milking methods. Hatchery operations, incubation and hatching equipments. Management of chicks, growers and layers. Debeaking, dusting and vaccination. Economics of cattle, buffalo, sheep, goat, swine and poultry production.

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Theory Exam Model Question Paper

Subject: ANIMAL HUSBANDARY

SEMESTER – II

Max.Marks=75

Answer any five questions

5X5= 25 M

1. What is de-worming?
2. What is ageing of cattle explain about it ?
3. What is score card for judging of dairy cows ?
4. Write about preparation of ghee and butter making ?
5. Write about different types of feed , fodder, silage making?
6. Write about brooder management?
7. Write about vaccination schedule for broilers and layers?
8. What is de-beaking?

Answer the following

5X10= 50 M

1. Common methods for restraining of animals.
Or
Draw neat sketch of electrical dehorner.
2. Explain about Indian method of casting.
Or
Write about design of animal and poultry houses.
3. Explain dehorning & deworming of calves.
Or
Write difference between thermometer & lactometer.
4. Write about demonstration of cream separation.
Or
Economics of dairy and goat farming?
5. What is the feed ingredients- composition of ratio for cows and bullocks ?
Or
What is de-baking and deworming of poultry?

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Practical Exam Model Question Paper

Subject: ANIMAL HUSBANDARY

SEMESTER – II

Max.Marks=50

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|---|-----|
| 1. Write the procedure in Debeaking and deworming of poultry. | 10M |
| 2. Explain the procedure in dehorning and deworming of cows. | 10M |
| 3. Write about Brooder Management | 10M |
| 4. Common Methods for restraining of Animals? | 12M |
| 5. Record | 5 M |
| 6. Viva voce | 3 M |

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AGR204: PRINCIPLES OF PATHALOGY

3+2 CREDITS

Theory

3 CREDITS

Importance of plant diseases, scope and objectives of Plant Pathology. Important plant pathogenic organisms, different groups: fungi, bacteria, fastidious vesicular bacteria, phytoplasmas, spiroplasmas, viruses, viroids, algae, protozoa, phanerogamic parasites and nematodes with examples of diseases caused by them. Diseases and symptoms due to abiotic causes. Fungi: General characters, definition of fungus, somatic structures, types of fungal thalli, fungal tissues, modifications of thallus, reproduction (asexual and sexual). Nomenclature, Binomial system of nomenclature, rules of nomenclature, classification of fungi. Key to divisions, sub-divisions, orders and classes. Bacteria and mollicutes: general morphological characters. Basic methods of classification and reproduction. Viruses: nature, architecture, multiplication and transmission. Study of phanerogamic plant parasites. Nematodes: General morphology and reproduction, classification, symptoms and nature of damage caused by plant nematodes (Heterodera, Meloidogyne, Anguina etc.)

Practical

2 CREDITS

Microscopy, General study of different structures of fungi. Study of symptoms of various plant diseases. Study of representative fungal genera. Staining and identification of plant pathogenic bacteria. Transmission of plant viruses. Study of phanerogamic plant parasites. Study of morphological features and identification of plant parasitic nematodes. Extraction of nematodes from soil

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Theory Exam Model Question Paper

Subject: PRINCIPLES OF PATHOLOGY

SEMESTER – II

Max.Marks=75

Answer any five questions

5X5= 25 M

1. Objectives of plant pathology.
2. Write the stages in the development infection or disease cycle.
3. What is Aspersorium Briefly write about it?
4. Write the role of enzymes in pathogenesis.
5. Write the role of toxins in plant pathogenesis.
6. Write about defense mechanism in plants.
7. What is remote sensing? How is it useful in pathology?
8. Write general principles of plant disease management ?

Answer the following

5X10= 50 M

1. Classification of fungicides based on chemical nature.
Or
Write about reproduction in fungi?
2. What is resistance? how it is useful in plants?
Or
Difference between *Pythium* and *Phytophthora*.
3. Give an account of Integrated plant disease management.
Or
Write about generalized life cycle of Asocmycotine?
4. Write about applications of Biotechnology in plant disease management.
Or
Write the important tissue culture techniques of importance to plant pathology.
5. Write about general characteristics of fungi.
Or
Give an account of types of asic based on structure of ascus wall.

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Practical Exam Model Question Paper

Subject: PRINCIPLES OF PATHOLOGY

SEMESTER – II

Max. Marks=50

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|--|---------|
| 1. Identify the following plant/ animal diseases | 2X5=10M |
| 2. Describe the staining procedure involved in Bacterial pathogen. | 2X5=10M |
| 3. Identifying the phaenerogamic parasitic plants | 2X5=10M |
| 4. Identifying the nematode parasites | 2X4=8M |
| 5. Record | 5M |
| 6. Viva Voice. | 3M |
| 7. Herbarium of diseased plants | 4M |

Note: 1.Live specimen/museum specimen/photographs may be used.

2. Herbarium-minimum of 4 sheets