From
The Principal,
Hindu College,
Guntur.

To
The Registrar
Acharya Nagarjuna University,
Nagarjuna Nagar.

Respected Sir,


***

I am herewith submitting the proposed model papers for III B.Sc. (VI semester) Agriculture students under CBCS pattern with effect from 2017-18 academic year. I request you to kindly verify and approve.

Enclosures:

1. III B.Sc. Semester VI Paper VII(B) - Elective Manures, Fertilizers and Soil fertility management

2. Paper VIII B - Cluster Electives (B)
   i. Paper VIII B(1) - GENETICS AND PLANT BREEDING
   ii. Paper VIII B(2) - ORGANIC FARMING AND SUSTAINABLE AGRICULTURE
   iii. Paper VIII B(3) - SOCIAL AND FARM FORESTRY

Thanking you, sir.

Yours faithfully,

(Dr. Y. GOWRI SANKAR)
III B.Sc. SEMESTER-VI Agriculture
Elective-II
Paper VII(B) – Manures, Fertilizers and Soil fertility management

Time: 3 hours                      Max. Marks: 75

Section – A (5 X 5 = 25 marks)
Answer any FIVE of the following.
(Short questions)

1. Write short notes on bulky organic manures.
2. Write the classification of phosphatic fertilizers with examples and their use.
3. Give a brief note on the suitability of different nitrogenous fertilizers for different soils and corps.
4. Write the principle of manufacture of any potassic fertilizer.
5. Straight Vs Complex fertilizers.
6. What is unit value of fertilizers and how will you evaluate the fertilizers.
7. Soil Acidity.
8. Outline the different methods of applying fertilizers to soil.

Section – B (5 X 10 = 50 marks)
Answer any ALL of the following.
(Essay type questions)

9. a. What are nitrogenous fertilizers and write the manufacture of urea, its properties and use.
   (or)
   b. Discuss the importance and scope of organic farming.

10. a. What are phosphatic fertilizers? Write its classification and manufacture, properties and use of superphosphate.
    (or)
    b. Write an essay on the manufacture of any complex fertilizer its properties and use.

(Mridula George)
11. a. What are the common agricultural liming materials? Evaluate the efficiency of liming materials.

(or)

b. What are the common soil amendments for alkali soils and write the action of soil conditioners.

12. a. Discuss the general principles involved in selecting the proper time for application of fertilizers.

(or)

b. What is optimum fertilizer dose and write the factors affecting optimum fertilizer dose.


(or)

b. Define secondary nutrients, materials supplying micronutrients and chelating compounds of micronutrients.

(Mridula George)
III B.Sc. SEMESTER-VI Agriculture  
Cluster Elective-B  
Paper VIII B(1) - GENETICS AND PLANT BREEDING

Time: 3 hours  
Max. Marks: 75

Section – A (5 X 5 = 25 marks)  
Answer any FIVE of the following.  
(Short questions)

1. Achievements of Plant Breeding.  
2. Vegetable reproduction.  
3. Domestication  
4. Germplasm  
5. Acclimatization  
6. Heterosis  
7. Centres of diversity  
8. Estimation of heterosis

Section – B (5 X 10 = 50 marks)  
Answer any ALL of the following.  
(Essay type questions)

9. a. What is apomixes? Explain any two methods and add a note on significance of Apomixis.  
   (or)  
   b. Write an essay on self incompatibility and mention its application in crop improvement

10. a. What are different male sterility types and add a note on its utilization in crop improvement.  
   (or)  
   b. What are different genetic resources and add a note on conservation.

(Mridula George)
11. a. Write an essay on systems of mating.
   (or)
   b. Illustrate components of variability and heritability.

12. a. Describe the Puraline theory.
   (or)
   b. Write an essay on methodology and advantages of back cross breeding.

13. a. Describe the different types of recurrent selection schemes.
   (or)
   b. Describe different types of hybrids.

(Mridula George)
III B.Sc SEMESTER-VI Agriculture
Cluster Elective-B
Paper VIII B(2) - Organic Farming and Sustainable Agriculture

Time: 3 hours   Max. Marks: 75

Section – A (5 X 5 = 25 marks)
Answer any FIVE of the following.
(Short questions)
2. What is biodynamic farming?
3. State a brief note on organic farming systems.
4. Write about Green Manuring.
7. Terrace Farming.
8. Organic Weed Management.

Section – B (5 X 10 = 50 marks)
Answer any ALL of the following.
(Essay type questions)
   (or)
   b. Write the principles of organic farming and explain the benefits of organic farming.

10. a. Write an essay on composting methods and vermicomposting.
    (or)
    b. Explain land preparation and mulching in organic farming.

11. a. Write the organic crop production methods of any vegetable.
    (or)
    b. Write the policies and incentives of organic production.

(Mridula George)
12. a. Discuss about the income generative activities in an organic farm.
   (or)
   b. Write about Farm Inspection & Certification.
13. a. Write about the basic concept of economics, demand & supply of an organic farm.
   (or)
   b. Write about organic amendments, sludges and biogas.

(Mridula George)
III B.Sc SEMESTER-VI Agriculture
Cluster Elective-B
Paper VIII B(3) - SOCIAL AND FARM FORESTRY

Time: 3 hours
Max. Marks: 75

Section – A (5 X 5 = 25 marks)
Answer any FIVE of the following.
(Short questions)

1. Write a notes on “JFM”.
2. Write briefly on “Protein Bank”.
3. Define and Write on the following.
   a. Home Gardens          b. Aqua Forestry
4. Write a note on “Criteria of good Agroforestry Design”.
5. Write short notes on “NTFP”.
6. Write briefly notes on “Classification of Agroforestry Systems”.
7. Write Silvicultural practices for “Pungam”.
8. Describe short notes on “Taungya System”.

Section – B (5 X 10 = 50 marks)
Answer any ALL of the following essay type questions

9. a. Describe the “Role of Forestry”.
     (or)
     b. What are the differences between Social Forestry and Agro forestry?
        What are the benefits of agro forestry?

     (or)
     b. Describe the classification of Agro forestry systems.

(Mridula George)
11. a. Explain Planning in Agro forestry, Diagnosis and design?
   (or)
   b. What are Agrisilvipastural systems and other systems?

12. a. Describe the Agro forestry systems for any Four agroclimatic zones in A.P.?
   (or)
   b. Explain community forestry and evolution of social forestry concepts?

13. a. Write about the practices for Teak and Eucalyptus briefly?
   (or)
   b. Describe the practices for “Neem”.

(Mridula George)