



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY & PLANT BIO-TECH.**

FIFTH SEMESTER – NOVEMBER 2011

**PB 5409 - PRINCIPLES OF AGRICULTURE**

Date : 10-11-2011  
Time : 9:00 - 12:00

Dept. No.

Max. : 100 Marks

**Part A**

(20 marks)

**Answer All questions**

*I Choose the Correct Answer*

( 5 x 1 = 5 marks)

01. Agricultural science that deals with the study of field crops and their management is called  
a. Horticulture    b. Arviculture    c. Forestry    d. Agricultural Engineering
02. Which of the following has a major impact on soil properties?  
a. Plants    b. animals    c. human beings    d. microorganism
03. The net amount of water delivered to a farm is called  
a. consumptive use    b. water use efficiency  
c. conveyance efficiency    d. field application efficiency
04. The optimum temperature for the cultivation of sugar cane is  
a. 21-27 °C    b. 14.29°C    c. 25-30°C    d. 28-34°C
05. Sowing of second crop in between the standard rows of the first crop before its removal is called  
a. Inter cropping    b. multi cropping    c. intensive cropping    d. relay cropping

*II State whether the following statements are True or False*

( 5 x 1 = 5 marks)

06. Genetic modification of plants which produce pharmaceuticals are called pharmocrops
07. Water pollution is a minor global problem.
08. Soil is a mixture of mineral and organic constituents.
09. Agricultural entomology deals with field management.
10. Rabi crops are cultivated during June to December.

*III. Complete the following*

( 5 x 1 = 5 marks)

11. Insect resistance is achieved through incorporation of a gene from \_\_\_\_\_
12. Minerals derived from \_\_\_\_\_ undergo changes that cause the formation of secondary minerals of the soil.
13. The important constituents of humus are \_\_\_\_\_ and \_\_\_\_\_ acids.
14. The reclamation of alkali soil is carried out by the addition of \_\_\_\_\_.
15. Organism which kills another organism is called \_\_\_\_\_.

IV. Answer all, each in about 50 words

( 5 x 1 = 5 marks)

16. What is a yellow and blue revolution?
17. Write a note on thermal pollution.
18. Mention the different types of organic fertilizers.
19. Define multiple cropping.
20. What is a weed?

**PART B**

( 5 x 7 = 35 marks)

Answer the following, each within 350 words only. Draw diagrams and flowcharts wherever necessary.

- 21a. Give a brief account on current agriculture status in India.  
or  
b. Discuss about the efficient use of water in crop production.
- 22a. Describe the criteria for scheduling irrigations.  
or  
b. Discuss the different ways to save the run-off water during irrigation.
- 23a. Explain the principles of soil fertility.  
or  
b. Explain the role of nitrogen and phosphorous based fertilizers.
- 24a. Write notes on intercultivation and reclamation of alkaline soil.  
or  
b. Describe the methodology of field preparation for the cultivation of agricultural crops.
- 25a. Explain briefly on biological control of pest.  
or  
b. Enumerate the significance of multiple cropping and crop rotation in plant protection.

**PART C**

(3x 15 = 45 marks)

Answer any three of the following, each within 1500 words only. Draw diagrams and flowcharts wherever necessary.

26. Write an essay on physical, chemical and biological properties of soil
27. Describe the effect of industrial effluents on water pollution
28. Discuss the essential plant nutrients and organic matters present in the soil
29. Explain how agriculture extension programme is useful to improve crop production.
30. Explain the agronomic practices followed in paddy cultivation.

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