



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

FIFTH SEMESTER – NOVEMBER 2023

UPB 5601 – PRINCIPLES OF AGRICULTURE

Date: 16-11-2023

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

SECTION A - K1 (CO1)

Answer ALL the Questions

(10 x 1 = 10)

1. Fill in the blanks

- a)is the father of Green Revolution in India.
- b) refers to the fineness of the mineral matter in the soil.
- c) Transplantation technique is applied in crop cultivation.
- d) The application of powder of the weed *Argemone mexicana* useful for reclamation of..... soils.
- e) pesticide kill natural predators and parasites that may have been keeping the population in check.

2. State whether the following statements are TRUE or FALSE

- a) Kharif crops grown during North East Monsoon
- b) Red soil is formed due to high temperature and rainfall with wet and dry spell.
- c) The method of sowing in chickpea is Broadcasting
- d) Weed ecology is study of inter-relationship between weed and their environment
- e) DDT is the first, second generation pesticide.

SECTION A - K2 (CO1)

Answer ALL the Questions

(10 x 1 = 10)

3. Choose the correct answer

- a) Agronomy deals with
 - a. Crop Science
 - b. Environmental Science
 - c. Soil science
 - d. All the above
- b) When water is not transported by natural flow and is lifted by some mechanical devices is called
 - a. Direct irrigation
 - b. Drip irrigation
 - c. Lift irrigation
 - d. Storage irrigation
- c) Which bio-fertilizer is used in paddy field?
 - a. PSB.
 - b. VAM.
 - c. Azolla
 - d. Both b and c
- d) Which of the following is an aquatic weed
 - a. *Ceratophyllum*
 - b. *Abutilon*
 - c. *Zizyphus*
 - d. *Withania*
- e) Which one of the following is true about IPM?
 - a. It never uses chemicals
 - b. It uses required quantity of chemicals
 - c. It uses only chemicals
 - d. None of the above

4. Answer the following, each in about 50 words

- a) Differentiate Agronomy from Agriculture
- b) List out the reasons for soil degradation.

c)	Mention the types of seed sowing in agriculture.
d)	Distinguish between season bound and crop bound weeds.
e)	Enlist the benefits of IPM.
SECTION B - K3 (CO2)	
	Answer any TWO of the following in 500 words each. (2 x 10 = 20) Draw diagrams / flowcharts wherever necessary
5.	Construct the blue print on principles of agronomy.
6.	Examine the physical, chemical, and biological properties of soil.
7.	Explain the agronomic practices followed in sugarcane cultivation.
8.	Outline the characteristics of weeds.
SECTION C – K4 (CO3)	
	Answer any TWO of the following in 500 words each. (2 x 10 = 20) Draw diagrams / flowcharts wherever necessary
9.	Write an account on various nitrogenous fertilizers.
10.	Outline the impact of industrial effluents on soil and water.
11.	Analyse the present agriculture status in India.
12.	Write about the classification of pesticides on the basis of use.
SECTION D – K5 (CO4)	
	Answer any ONE of the following in 1000 words (1 x 20 = 20) Draw diagrams / flowcharts wherever necessary
13.	Explain the conventional as well as modern systems of irrigation.
14.	Compare and evaluate the preventive, mechanical, cultural, chemical and biological methods of weed control.
SECTION E – K6 (CO5)	
	Answer any ONE of the following in 1000 words (1 x 20 = 20) Draw diagrams / flowcharts wherever necessary
15.	Elaborate on the importance of organic farming in sustainable agriculture production.
16.	Write an essay on roles of microbes in pest control.

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