

LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

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



FIFTH SEMESTER – **NOVEMBER 2024**



UPB 5601 – PRINCIPLES OF AGRICULTURE

Date: 21-11-2024

Dept. No.

Max. : 100 Marks

Time: 09:00 am-12:00 pm

SECTION A - K1 (CO1)

Answer ALL the Questions (10 x 1 = 10)

1. Fill in the blanks

- a) The success of green revolution is due to use of high yielding variety and
- b)is determined by the proportions of sand, silt and clay particles.
- c) Chickpea is also called as
- d) Basophilic weeds predominantly growing in soil.
- e) resistance is the genetic ability of some individuals in a pest population to survive a pesticide's application.

2. State whether the following statements are TRUE or FALSE

- a) Historically, India is an agriculture based country.
- b) Magnesium is a key element of the chlorophyll.
- c) Transplantation is carried out in paddy cultivation.
- d) Weeds invading areas around buildings, highway, railway lines are called noxious weeds.
- e) The cytoplasmic polyhedrosis viruses have double stranded RNA.

SECTION A - K2 (CO1)

Answer ALL the Questions (10 x 1 = 10)

3. Choose the correct answer

- a) A branch of agricultural science which deals with principles and practices of soil, water and crop management
 - a) Horticulture
 - b) Agronomy
 - c) Agriculture
 - d) Crop Science
- b) A balanced fertilizer for plants is
 - a) Urea
 - b). Compost
 - c). Superphosphate of lime
 - d). Ammonium phosphate
- c) By product of sugarcane processing is/are _____
 - a) Rum
 - b) Bagasse
 - c) Molasses
 - d) all these
- d) Which one of the following weed is used for the reclamation of alkali soil
 - a) *Lantana camera*
 - b) *Cyperus rotundus*
 - c) *Argemone Mexicana*
 - d) *Eclipta alba*
- e) Pyrethrin is extracted from which one of the following plant:

	a) <i>Helianthus annuus</i> b), <i>Azadirachta indica</i> c) <i>Chrysanthemum cinerarifolium</i> d) <i>Poa indica</i>
4.	Answer the following, each in about 50 words
a)	Enlist the branches of agriculture.
b)	Differentiate native weeds from exotic weeds.
c)	Distinguish between Rabi and Kharif crops.
d)	Define weed biology.
e)	Infer on mating disrupters.

SECTION B - K3 (CO2)

	Answer any TWO of the following in 500 words	(2 x 10 = 20)
Draw diagrams / flowcharts wherever necessary		
5.	Write a comprehensive notes on the process for producing hybrid crops using conventional breeding methods.	
6.	Write a note on any five soil types of India.	
7.	Critically comment on organic farming.	
8.	Compare the mechanical and cultural methods of weed control.	

SECTION C – K4 (CO3)

	Answer any TWO of the following in 500 words	(2 x 10 = 20)
Draw diagrams / flowcharts wherever necessary		
9.	Discuss the relevance of second Green Revolution in India.	
10.	Compare the various types of irrigation in India.	
11.	Write notes on crop rotation and intercropping.	
12.	Outline the biological pest control using bacteria and viruses.	

SECTION D – K5 (CO4)

	Answer any ONE of the following in 1000 words	(1 x 20 = 20)
Draw diagrams / flowcharts wherever necessary		
13.	Evaluate the current state of agriculture in India	
14.	Write an account on classification of weeds based on morphology, association, habitat, life cycle and soil pH.	

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 agronomic practices followed in sugarcane cultivation.	
16.	Describe the three components of Integrated Pest Management implementation. Add a note on pesticide resistance and pesticide resurgence	

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