

B.Sc. (Ag.) Honours Semester-III Examination, 2016

Course No: AGR-211 (Weed Management)

Signature of Centre Superintendent

Roll No. : (in figure) _____ (in words) _____

Student Index No. _____ Regn. No. _____ of _____

Time : Two Hours

Full marks : 40

Questions are of value as indicated in the margin

Part - I
(Objective and Short Answer Type)
(Use only ball point pen)

Time : 20 minutes

Full marks : 10

- Note:** 1. Answer in question paper itself.
2. Striking, rewriting or overwriting are not allowed in the objective type questions.

1. **State True (T) or False (F) in respect of the following statements (any five):** 5×0.5=2.5
- (a) *Lantana camara* is an indigenous weed. ☐
 - (b) *Orobancha* is a total root parasite of tobacco. ☐
 - (c) Dredging aims to reduce seed production and excess weed growth in lawns. ☐
 - (d) In transplanted lowland rice, weed infestation is higher than upland rice. ☐
 - (e) Crop weed competition is most critical when the crop plants are old. ☐
 - (f) Collego is an important bio-control agent. ☐
 - (g) Presence of β -oxidase in legumes determines selective tolerance to 2,4-DB. ☐
2. **Fill up the blanks with most appropriate words (any five):** 5×0.5=2.5
- a) An important biocontrol agent for *Parthenium hysterophorus* is _____
 - b) In soil solarization, temperature is increased by _____ degree C.
 - c) Direct or direct effect that harms the crop by releasing some chemicals is known as _____
 - d) The shortest period in the ontogeny of weed growth when weeding will result in highest economic return is called _____
 - e) Fluchloralin is applied as _____ (time of application)
 - f) Quizalofop ethyl is applied to control _____ weeds of _____ crop
 - g) The trade name of Butachlor is _____ while that for Pendimethalin is _____
3. **Tick (✓) the correct alternative (any five):** 5×0.5=2.5
- a) Glyphosate herbicide inhibits the action of ALS / EPSP/GSTransferase / ACCase.
 - b) *Eichhornia crassipes* is a xerophytes / mesophyte / hydrophyte / thallophyte.
 - c) *Phalaris minor* is a biennial / annual / perennial.
 - d) *Loranthus longiflorus* is a parasitic weed in apple / mango / citrus / guava.
 - e) Amaranthus viridis propagates through tubers / offsets / runners / seeds
 - f) Mycoherbicide Devine contains fungal spores of Cercospora / Phytophthora / Palmivora / Fusarium / Puccinia.

(2)

4. Match column 'A' with column 'B' and jot down your answer in column 'C' based on column 'A'

5×0.5=2.5

Column-A	Column-B	Column-C
a) Alien Aquatic weed	i) Allelopathy on Parthenium	()
b) Cassia	ii) <i>Eichhornia sp</i>	()
c) Canary grass	iii) Butachlor	()
d) Rice herbicide	iv) <i>Phalaris minor</i>	()
e) Wheat herbicide	v) Isoproturon	()

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Part - II
(Descriptive Type)

Time : 100 Minutes

Full marks : 30

Questions are of value as indicated in the margin

Answer *any four* questions from the following.

5. a) Define weeds.
b) Enlist the harmful effects of weeds.
c) Classify weeds on the basis of origin and association with examples. 2+2.5+3=7.5
6. a) What is critical period of crop-weed competition?
b) How do weeds compete with the crops?
c) What are the factors affecting the critical period of crop-weed competition?
d) Write down the critical period of crop weed competition for Direct seeded rice, transplanted rice, Maize, Wheat. 1.5+2+3+1=7.5
7. a) What do you mean by weed management?
b) What are the principles of weed management?
c) Discuss in brief about cultural methods of weed control.
d) Enlist some biological methods of weed control. 1+2+3+1.5=7.5
8. a) Classify herbicides based on time of application with example.
b) What are the different methods of application of foliage active herbicides?
c) What is the difference between selective and non selective herbicide?
d) Suggest some herbicides with dose and time of application for controlling weeds in Rice. 2+2+1.5+2=7.5
9. a) What do you mean by selectivity?
b) Enlist the different mechanisms of selectivity with examples.
c) Write the advantages and limitations of herbicide usage in India. 1.5+3+3=7.5
10. Write short notes (*any five*) 1.5×5=7.5
- i) Satellite weeds
 - ii) Soil solarisation
 - iii) Problems of Aquatic weeds
 - iv) Bioherbicide
 - v) Adjuvant use in herbicide
 - vi) Reverse metabolism
 - vii) Mode of action
 - viii) Broad spectrum herbicide
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