

B.Sc.(Ag.) Honours Semester– III Examination, 2014

Course No. : AGR –211 (Weed Management)

(Old Syllabus)

Signature of Centre Superintendent

Roll No.: (in figure) _____ (in words) _____
Student Index No. _____ Regn. No. _____ of _____

Time : Two hours

Full marks : 50

Questions are of value as indicated in the margin

Part–I

(Objective and Short Answer Type)

(Use only ball point pen)

Time : 30 minutes

Full marks : 20

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

1. State True (T) or False (F) in respect to the following statements (any five):

1×5=5

- (i) *Trianthema portulacastrum* is a *rabi* season weed
- (ii) Butachlor is a post emergence herbicide in rice
- (iii) *Loranthus* is a parasitic weed in mango
- (iv) Dredging is used for management of weed in lawn
- (v) Collego is a bio-herbicide
- (vi) The herbicide 2,4-D selectively controls grassy weeds
- (vii) Eradication of weed means complete removal of weed

2. Fill up the blanks with most appropriate words (any five):

1×5=5

- (i) The scientific name of quack grass is _____.
- (ii) The critical period of weed competition in direct seeded rice (upland) is _____.
- (iii) The insect bioagent used to control *Parthenium* is _____.
- (iv) The herbicide atrazine belongs to chemical group _____.
- (v) Metribuzin is a herbicide mainly recommended for _____ crop.
- (vi) *Echinochloa crusgalli* is a common weed in _____ crop.
- (vii) _____ is an example of simple perennial weed.

3. Tick (✓) the correct alternatives (any five):

1×5=5

- (i) The definition of weed was first given by
(a) Robert Brown (b) V.S. Mani (c) J. Nicolson (d) Jethro Jull
- (ii) Paraquat is a (a) Pre-emergence selective (b) Post-emergence selective
(c) Pre-emergence contact (d) Post-emergence contact herbicide
- (iii) 2,4-DB becomes toxic in broadleaved weeds due to
(a) metabolism (b) conjugation (c) hydrolysis (d) reverse metabolism
- (iv) The herbicide dose in soil with higher organic matter will be
(a) Less (b) double (c) equal (d) more

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- (v) Water hyacinth is a/an
(a) floating (b) emergent (c) immersed (d) submerged aquatic weed
- (vi) Which of the following is a herbicide safener
(a) CAN (b) N-Serve (c) Ammonium sulphate (d) NA
- (vii) *Cyperus rotundus* is a/an
(a) perennial grass (b) perennial sedge (c) annual grass (d) annual sedge

4. Match the Column 'A' with Column 'B' and write your answer in Column 'C' based on Column 'A':

1x5=5

Column A

- i) Pendimethalin
- ii) Isoproturon
- iii) Metribuzin
- iv) Butachlor
- v) Paraquat

Column B

- a) Acetamide
- b) Dinitroanilines
- c) Substituted phenyl urea
- d) Bipyridilium
- e) Asymmetrical triazines

Column C

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Part–II

(Descriptive Type)

Time : 1.5 Hours

Full marks : 30

Questions are of value as indicated in the margin.

Answer **any four** questions from the following.

5. Define weed. Classify weeds on the basis of morphology and life cycle with example. Why should we control weeds? 1+4+2.5=7.5
 6. Write the basic principles of weed management. What do you mean by weed prevention? Give a list of preventive methods of weed management. Briefly discuss any two cultural methods of weed management. 2+1+1.5+3=7.5
 7. What is biological control of weeds? Give a list of bio-control agents and their target species. Briefly discuss the advantages and limitations of biological control. 1+3.5+3=7.5
 8. Define herbicide. Briefly highlight the methods and time of herbicide application. What do you mean by selectivity and mode of action of herbicide. Briefly discuss the mode of action of glyphosate and atrazine. 1+3+2+1.5=7.5
 9. Give a list of major weeds in transplanted *kharif* rice and potato. What do you mean by integrated weed management? Briefly discuss about weed management in transplanted rice. 4+1+2.5=7.5
 10. Write short notes on **any five** of the following: 1.5×5=7.5
 - a) Aquatic weeds
 - b) Beneficial effect of weeds
 - c) Limitations of herbicide use in India
 - d) Adjuvants
 - e) Parasitic weeds
 - f) Importance of summer ploughing in weed management
 - g) Allelopatty in weed management
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