

M.Sc.(Ag.) Semester – I Examination, 2014

Agronomy

Course : AGR – 503

(Principles & Practices of Weed Management)

Time: 3 Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer **any five** questions.

1. Differentiate between (**any five**): 2×5=10
 - (a) Weed management vs weed control
 - (b) Safeners vs surfactants
 - (c) Weed index (WI) vs weed control efficiency (WCE)
 - (d) Exotic weed vs Indigenous weed
 - (e) Total parasitic weeds vs partial parasitic weed
 - (f) Mode of action vs herbicide selectivity
 - (g) Bioherbicide vs Mycoherbicide
 - (h) Noxious weed vs Objectionable weed
2. (a) Write in brief the classification of weeds based on Ontogeny, Habitat, Cotyledon, growing habit & association.
(b) State the importance of weed seed bank and crop weed competition in modern weed management. 6+4=10
3. What are the principles of weed management? Write in brief the weed control methods of transplanted rice with environment safe measures. Enlist ten important weed flora in transplanted paddy. 4+4+2=10
4. (a) Define biological weed management.
(b) State the advantages of biological methods over the other methods of weed control.
(c) Discuss the advantages of cultural weed management. 2+4+4=10
5. (a) Selectivity is a relative term – Justify.
(b) What do you mean by Herbicide Resistance? Differentiate between cross resistance and multiple resistance.
(c) Enlist the factors responsible for herbicide resistance and suggest management strategies. 2+(2+2)+(2+2)=10
6. What do you mean by Weed Biology? Discuss the weed characteristics which help in weed persistence. Write in short about Weed Seed Dormancy. What are the preventive methods of weed management? 2+4+2+2=10

P.T.O.

(2)

7. Discuss about the weed management of (a) Potato (b) Jute (c) Sugarcane and (d) Wheat. $4 \times 2.5 = 10$

8. Write short notes (*any five*): $2 \times 5 = 10$

- (a) Invasive weeds
 - (b) Herbicide formulation
 - (c) Utilization of weeds
 - (d) Herbicide resistance transgenic crop
 - (e) Critical crop-weed competition period
 - (f) Importance of allelopathy in weed management
 - (g) Importance of integrated weed management
 - (h) Classification of aquatic weeds
 - (i) Weed management in "SRI" cultivation
 - (j) Adjuvant
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