IFS Agriculture 2006
PAPER - I
SECTION A
1. Write critical comments on any four of the following, each not exceeding 150 words:
(10 × 4 = 40)
(a) Allelopathy effects of weeds
(b) Problems of dryland agriculture
(c) Effect of mulching
(d) Integrated nutrient management system
(e) Benefits of crop rotation in intensive cropping
2. What do you mean by watershed management? Discuss the important steps to be considered in integrated watershed management.
(40)
3. (a) Define Intercropping System. Enlist the advantages and disadvantages of intercropping system. Support your answer with suitable examples.
(b) Which are the pre-requisites of successful intercropping system?
(20 x 2 = 40)
4. (a) What are the important physical and chemical properties of soil?
(b) State the important factors responsible for soil formation and explain effects of climate on soil formation.
(20 × 2 = 40)
SECTION B
5. Differentiate between the following pairs in not more than 150 words each. Attempt any four:
(10 x 4 = 40)
(a) Partial and Complete budgeting
(b) Selective and Non-selective herbicides
(c) Saline and Alkaline soils
(d) Surface and Sub-surface drainage
(e) Organic and Conventional fanning
6. Define the term training. Give basic principles of training and explain in brief its need for extension worker.
(40)
7. (a) What do you understand by social forestry ? State the advantages of social forestry.
(20)
(b) Explain the characteristics of different problem soils. Suggest the ways for reclamation of problem soils.
(20 x 2 = 40)
8. Discuss the scope of micro-irrigation in Indian Agriculture. State the types of micro-irrigation and explain merits and demerits of drip irrigation system.
(40)

PAPER - II
SECTION A
1. Answer any four of the following in about 150 words
(a) What is progeny test? Discuss its significance in plant breeding.
(4 + 6 = 10)
(b) Define emasculation. Describe various methods of emasculation.
(2 + 8 = 10)
(c) What is inbreeding? Summarise the effects of inbreeding.

(2 + 8 = 10)
(d) Describe in brief the merits and demerits of mass selection.
(10)
(e) Elaborate incorporation of novel genes through genetic engineering.
(10)
2. (a) Define synthetic variety. What measures would you suggest for the improvement of the performance of synthetic varieties.
(2 + 8)
(b) Briefly discuss the factors influencing photosynthesis.
(10)
(c) What are phytohormones? Describe in brief the role of gibberellins in plants.
(4 + 6 = 10)
(d) Define hybrid. Give the merits and demerits of hybrids.
(2 + 8 = 10)
3. Write short notes on the following in about 150 words :
(4 x 10 = 40)
(a) Package of practices for wheat cultivation.
(b) Mitosis
(c) Biopesticides.
(d) Diseases of tomato
4. Give scientific name, nature of damage, life cycle and control measures of the following pests
(a) Mustard aphid
(4 x 5 = 20)
(b) Paddy grasshopper
(4 x 5 = 20)

SECTION B

5. Describe any four of the following in about 150 words each:
(a) Package of practices for paddy cultivation.
(b) Hormones and pheromones.
(5 + 5 = 10)
(c) Organization and functions of I.C.A.R.
(5 + 5 = 10)
(d) Constraints in the production of food grains.
(10)
(e) Eco-friendly management of pests and diseases.
(10)
6. Distinguish between the two in about 150 words each :
(4 x 10 = 40)
(a) I.P.M. and 1.R.M.
(b) Endocrine and exocrine glands.
(10)
(c) Inbreds and hybrids.
(d) Grafting and layering.
7. Write short notes on the following in about 150 words each :
(4 x 10 = 40)
(a) International institutes for crop improvement.
(b) Management of storage pests.
(c) Multi line varieties.
(d) Seed borne diseases.

8. Compare the following in about 150 words each:
(4 x 10 = 40)
(a) Registered seed and breeder seed.
(b) Disease tolerance and resistance.
(c) Nematicides and rodenticides.
(d) Pedigree method and bulk method of breeding.