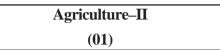
- (B) What is Seed Technology ? Explain its role and goals in agriculture.45
- (A) Describe the process of mass production of NPV for Spodoptera Letura.
  - (B) What is a lawn ? Briefly describe preparation of an ideal lawn in the garden.45
- 7. (A) Answer the following in brief (any five) :
  - (1) Enlist various types of insecticidal formulations available in market with suitable examples.
  - (2) Discuss different problems associated with breeding forage crops.
  - (3) Give characteristics of good potato seed tubers.
  - (4) Describe the factors responsible for deterioration of variety.
  - (5) What are the advantages of seed treatment for the control of insect pests ?
  - (6) Give importance of proteins and carbohydrates in human diet.
  - (B) State causal organisms, describe the characteristic symptoms and control measures of the following diseases (any **five**) :
    - (1) Bacterial blight of rice (2) Black rust of wheat
    - (3) Red rot of sugarcane (4) White rust of mustard
    - (5) Ergot of bajra (6) Wilt of cotton
    - (7) Root-knot of tobacco.
- 8. Write short notes on the following (any five) :
  - (1) Quarantine
  - (2) Importance of vegetables in human diet
  - (3) Rockery
  - (4) Post harvest handling of cut flowers
  - (5) Noblization of Indian cane
  - (6) Seed processing
  - (7) Role of Ethylene in agriculture.

**Total No. of Printed Pages : 4** 

Roll No.

## 1[CCE.M]1



Time : Three Hours

Maximum Marks: 300

## **INSTRUCTIONS**

- (i) Answers must be written in English.
- (ii) The number of marks carried by each question is indicated at the end of the question.
- (iii) The answer to each question or part thereof should begin on a fresh page.
- (iv) Your answers should be precise and coherent.
- (v) The part/parts of the same question must be answered together and should not be interposed between answers to other questions.
- (vi) Candidates should attempt question nos. 2 and 4 which are compulsory and any **four** more out of the remaining questions.
- (vii) If you encounter any typographical error, please read it as it appears in the text book.
- (viii) Candidates are in their own interest advised to go through the General Instructions on the back side of the title page of the Answer Script for strict adherence.
- (ix) No continuation sheets shall be provided to any candidate under any circumstances.
- (x) Candidates shall put a cross (X) on blank pages of Answer Script.

1

HRI-28371

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Contd.

- (xi) No blank page be left in between answer to various questions.
- 1. (A) Define the following terms (any ten) :
  - (1) Olericulture (2) Bolting
  - (3) Parthenocarpic fruit (4) Monohybrid
  - (5) Genome (6) Pistillate line
  - (7) Anthesis (8) Genetic purity
  - (9) Kilo Calorie (10) Devernalisation
  - (11) Ascent of Sap (12) Enzyme.
  - (B) Define heterosis. Discuss its application and achievement in crop improvement.45
- 2. (A) Differentiate between the following (any five) :
  - (1) Parasite and Predator
  - (2) Determinate and Indeterminate tomato
  - (3) Hybrid tea rose and Floribunda rose
  - (4) Euploidy and Aneuploidy
  - (5) Qualitative and Quantitative Traits
  - (6) 'A' line and 'R' line
  - (7) Short day plant and Long day plant
  - (8) Passive and active absorption of water.
  - (B) What are major factors contributing to low production of fruits in India ? What measures are necessary to increase their production and productivity ?
- 3. (A) Explain the following (any five) :
  - (1) Advantages of Biological control
  - (2) Essential components of garden
  - (3) Uses of flowers
  - (4) Factors affecting the growth of house plants

- (5) Types of mutagenic agents with three examples of each type.
  - (6) Principles of orchard planning.
- (B) Describe the procedure of pedigree method of crop breeding with its merits and demerits.
- 4. (A) Justify the following statements giving scientific reasons (any **five**) :
  - (1) Clipping the tips of rice seedlings is advisable for over aged seedlings at the time of transplanting.
  - (2) Cytoplasmic male sterile line is used in vegetatively propagated crops.
  - (3) Isolation distance should be maintained strictly for seed production programme.
  - (4) Selfing in necessary for seed production of Inbred lines.
  - (5) Wild relatives of crop plants should be maintained in germplasm.
  - (6) Knowledge of floral biology is essential for plant breeder.
  - (7) Selection is not fruitful within pure line.
  - (8) Selection starts from  $F_2$  onwards.
  - (B) Describe major storage pests of cereals and pulses. Also discuss their management strategies to avoid the storage losses. 60
- 5. (A) Explain the Following terms (any ten) :
  - (1) Light trap (2) Temperate fruit
  - (3) Flat bed (4) Hedge
    - Climber (6) Hybrid
  - (7) Back cross (8) Sex linked trait
  - (9) Epistasis (10) Foundation Seed
  - (11) Pure line (12) Senescence.

HRI-28371

HRI-28371

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3