Q.1. Select the best option/answer and fill in the appropriate box on the Answer Sheet. (20)

(i) White revolution refers to the revolution in:
(a) Rice production (b) Milk production (c) Cotton production
(d) None of these (e) All of these

(ii) Organic farming is important because of:
(a) Toxic free plants (b) GMO free (c) Eco friendly
(d) Healthy for humans (e) All of these

(iii) Which of the following is not a good source of dietary fiber?
(a) Pasta (b) Brown rice (c) Egg
(d) Bread (e) All of these

(iv) The branch of agriculture that deals with rearing of silkworm is called:
(a) Olericulture (b) Sericulture (c) Apiculture
(d) Viticulture (e) None of these

(v) *Oryza Sativa* is the botanical name of:
(a) Rice (b) Wheat (c) Barley
(d) Sorghum (e) None of these

(vi) *Xanthomonas citri* is the disease causal organism of citrus.
(a) Bark splitting (b) Foot rot (c) Canker
(d) Citrus decline (e) None of these

(vii) Cholistani, Kali, Damani, Kachi and Bibrik are some of the breeds of:
(a) Goats (b) Camel (c) Buffalo
(d) Sheep (e) None of these

(viii) Inflation of mammary glands of milch animals is called:
(a) Johne’s disease (b) Tuberculosis (c) Mastitis
(d) Leptospirosis (e) None of these

(ix) Patoto is an example of:
(a) Root crop (b) Legumes (c) Fiber crop
(d) Sugar crop (e) None of these

(x) Tobacco is an example of:
(a) Kharif crop (b) Rabi crop (c) Zaid rabi crop
(d) Zaid Kharif crop (e) None of these

(xi) Peanuts are:
(a) Roots (b) Grains (c) Legumes
(d) Nuts (e) None of these

(xii) Which of the following insects is friendly for an organic farmer?
(a) Stem borer (b) Root borer (c) Boll worm
(d) Mango mealy bug (e) None of these

(xiii) Money maker, Roma, Red top are some of the varieties of:
(a) Chillies (b) Potato (c) Tomato
(d) Onion (e) None of these

(xiv) Swollen underground stem; an organ of food storage and propagation is called:
(a) Rhizome (b) Tuber (c) Scion
(d) Septa (e) None of these
Plants having soft, non woody growth are called:
(a) Herkogamous  (b) Hermaphrodite  (c) Herbaceous
(d) Homozygous  (e) None of these

Removal of exchangeable sodium from the soil is called:
(a) Denitrification  (b) Desalinization  (c) Desodication
(d) Decortication  (e) None of these

Enzymes are biocatalysts and their nature is:
(a) Fat  (b) Carbohydrate  (c) Fiber
(d) Protein  (e) None of these

Khapra beetle is the pest of:
(a) Rice  (b) Sorghum  (c) Barley
(d) All of these  (e) None of these

L-113, PR-100 and BL-4 are the varieties of:
(a) Rice  (b) Wheat  (c) Cotton
(d) Sunflower  (e) None of these

Which one of the following is non essential amino acid?
(a) Lysine  (b) Leucine  (c) Isoleucine
(d) Glutamine  (e) None of the above

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PART – II

NOTE:
(i) PART-II is to be attempted on the separate Answer Book.
(ii) Attempt ONLY FOUR questions from PART-II. All questions carry EQUAL marks.
(iii) Extra attempt of any question or any part of the attempted question will not be considered.

Q.2. Define biotechnology and discuss in detail the role of biotechnology in crop improvement. (20)

Q.3. Discuss the role of environmental factors in the development of infectious diseases in plants and suggest measures to control these diseases. (20)

Q.4. Describe different methods of pest control in crops with main emphasis on biological control of insect-pests? (20)

Q.5. Discuss in detail the situation of development in agriculture sector in Pakistan and describe strategies to boost agricultural production in the country. (20)

Q.6. Enumerate the scope of range management in Pakistan and discuss its role in the development of dairy sector in the country. (20)

Q.7. Discuss in detail different techniques used for the asexual propagation of fruit plants. (20)

Q.8. Write short notes on ANY FOUR of the following: (20)
(a) Factors affecting biological nitrogen fixation
(b) Soil erosion
(c) Crop rotation
(d) Genetic engineering
(e) Effective microorganisms (EM) technology
(f) Prospects of meat industry in Pakistan

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