

Board of Departmental Examination, Himachal Pradesh

Departmental Examination <sup>DEC</sup> November, 2017.

Paper: 3 Rules and Acts for the Technical Officers of Horticulture Department.

MM: 100

Time Allowed: 3 Hrs.

Notes:

1. Attempt any Five Questions in all. Q. No. 1 is Compulsory.
2. All questions carry equal marks.
3. Books are not allowed inside the examination hall.

**Q.No. I** (i) What are the major objectives of the world Bank funded – Himachal Pradesh Horticulture Development Project. Describe in brief its main components pertaining to Horticulture Department.

(ii) Write short notes on any four of the following:

1. Canopy management in apple.
2. High Density Plantation in fruit crops.
3. Tissue Culture Technique and its importance in fruit crops.
4. Integrated Nutrient Management in Fruit Crops.
5. Clonal Root stocks recommended for apple in H.P.

(2x10=20 Marks)

**Q. No. II** (i) Enlist the essential plant nutrients required for normal growth and development of fruit crops. What is the Arnon's criteria for a nutrient to be categorized as essential.

(ii) Describe in brief Time and method of leaf sample collection for evaluating nutrient status in the following fruit crops:

1. Apple and pear
2. Stone fruits.
3. Mango and Litchi
4. Citrus fruit crops
5. Grapes

(2x10=20 Marks)

**Q. No. III** Write brief notes on the following : (Any of the four)

1. Mango Mall formation
2. Citrus Decline problem.
3. Peach leaf curl
4. Annar Butter fly
5. Integrated Pest Management in fruit crops.
6. Rejuvenation of old and senile apple orchards and replant problem.

(4x5=20Marks)

Q. No. IV (A) Describe the salient features of the State plan Schemes of the Department of Horticulture.

(B) Enlist the major fruit crops covered under the Weather Based Crop Insurance Scheme (WBCIS); its salient features and major constraints in its implementation

(2X10=20 Marks)

OR

Describe in brief the following:

1. M.I.D.H.
2. R.K.V.Y.
3. P.M.K.S.Y.
4. Bee Keeping Development Scheme.
5. M.I.S.

(5x4=20 Marks)

Q. No. V Write brief note on the following: (any Five of the following)

1. Challenges in present scenario of Horticulture in Himachal Pradesh.
2. Post Harvest management of Fruit Crops.
3. Frost Management in Fruit Crops.
4. Role of calcium in improving the shelf life of apple.
5. Major constraints in apple cultivation in Himachal Pradesh.
6. Fertigation and its importance in increasing the fertilizer use efficiency.
7. Importance of rain water harvesting in Horticulture.

(5x4=20 Marks)

Q. No. VI Differentiate the following: (any Five of the following)

1. *Apis indica* & *Apis mellifera*
2. Pollinizer & Pollinator
3. Seedling & clonal root stock
4. Contact and Systemic pesticides
5. Quarantine & Post Entry Quarantine
6. Cold Store & C.A. Store
7. Organic manures & Bio fertilizers.
8. Budding & Grafting

(5x4=20 Marks)

Q. No. VII Write briefly on the following: (any four of the following)

1. What are the salient features of Community Canning Service being implemented by the Department of Horticulture H.P.
2. Zero Energy cool chamber technology
3. Mushroom Cultivation in Himachal Pradesh

4. What are the Penalties laid down under H.P. Fruit Nurseries Registration Act-2015 for violations by a nursery man ?. Who is the Appellate Authority under the act and time period for filing an appeal.
5. Protected Cultivation and its role in Diversification of Horticulture.

**(4x5=20 Marks)**

**Q. No.VIII** (i) Describe briefly the role of various schemes of the department of horticulture in skill development and Employment generation.

(ii) Describe briefly the Public Service Guarantee Act – 2011 and the schemes of the Department of Horticulture covered under the P.S.G.A.-2011. Time period for rendering the services; Appellate Authority and time period for filling the appeal.

**(2x10=20 Marks)**