SYLLABUS FOR GENERAL POSTS - VILLAGE SERICULTURE ASSISTANTS

<table>
<thead>
<tr>
<th>Written examination (Objective type)</th>
<th>No of questions</th>
<th>Duration (Minutes)</th>
<th>Maximum Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part- A : General Studies and mental ability</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Part B. Sericulture</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>150</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** For each correct answer 1 mark will be awarded and each wrong answer will carry 0.25 negative mark.

SYLLABUS FOR EXAMINATION TO THE POST OF VILLAGE SERICULTURE ASSISTANT IN ANDHRA PRADESH SERICULTURE SUBORDINATE SERVICE

**PART-A**

**GENERAL STUDIES AND MENTAL ABILITY**

1. General Mental ability and reasoning.
2. Quantitative aptitude including data interpretation.
3. General English.
5. General Science and its applications to the day to day life, Contemporary development in science and Technology and information Technology.
6. History & Culture of India with specific focus on AP.
7. Indian polity and governance: constitutional issues, 73/74th Amendments, public policy, reforms ad centre – state relations with specific reference to Andhra Pradesh.

**Part B: Sericulture**

**History of Sericulture** – Introduction, History, Silk Road

Morphology and **Taxonomy of Mulberry** - Introduction, Distribution of Mulberry, Mulberry varieties (G4), systematic position, morphology and Taxonomy of mulberry.

**Non-mulberry food plants:** Tasar, Eri, and Muga

**Soils and Preparation of Land**- Introduction, types of soils and properties, Suitable soils for Mulberry, soil PH and reclamation, selection of land, land preparation, soil erosion, Soil texture, Soil humus, soil moisture and conservation methods. **Mechanization in mulberry cultivation.**

Mulberry planting methods: Introduction - Introduction, selection of mulberry varieties, **Planting (Tree plantation) methods**, sexual and asexual propagation.

**Mulberry Cultivation:** Introduction, Cultural Practices, garden implements, weeds and inter-cultivation, pruning and training, importance of water shed, methods of irrigation, detailed study of Drip irrigation.

**Manures & Fertilizers** – Introduction, **organic manures**, types of fertilizers, application methods and schedules, **Detailed study of Vermi-compost.**

**Nutritive values of Mulberry leaf** - Introduction, Bye products of Mulberry, Medicinal and other use of mulberry, Contents of mulberry leaf.

**Non- Mulberry SilkWorms** – Introduction, Distribution, salient features of non-mulberry silkworms.

**Rearing House** – Introduction, Site selection and types of rearing houses.

**Rearing Equipment** – Introduction, Equipment and uses, **Mechanization for large scale Sericulture.**
Preparation for Rearing – Introduction, cleaning, preparation for disinfection, disinfectants and disinfection methods, maintenance of hygienic conditions during rearing and record maintenance.

Environmental Conditions and Management – Introduction, Temperature, humidity, air, light, Management of environmental conditions and various devices used.

Economics of Silkworm rearing – Introduction, equipment required for 300 DFL’s, show rearing and its economics, Economics of (CRC)Chawki Rearing Centres. By products of silkworm rearing and their utilization.


EDP in Sericulture: Introduction, EDP in Mulberry Nursery, CRC’S, Grainage and Silk reeling and few success stories in sericulture.

Hatching and Brushing – Introduction, incubation of eggs, blue egg and black boxing, hatching and hatching percentage, methods of brushing, Methods of leaf harvesting, transportation and preservation

Chawki Rearing – Introduction, Chawki rearing methods, quality of mulberry leaf, leaf selection, feeding schedules, bed cleaning, spacing, moulting, Artificial diet.

Late age Rearing – Introduction, late age rearing methods (shoot rearing), quality of mulberry leaf, leaf selection, feeding schedules, bed cleaning, spacing and moulting.

Spinning and Mounting – Introduction, ripening of worms, process of spinning, mounting, types of mountages, environmental conditions, care during mounting, cocoons harvesting transport. Bye products of Rearing and value addition


Silkworm Anatomy – Introduction, Silk glands, digestive system, reproductive system of moths

Silkworm Diseases and Pest management –Introduction, protozoan, bacterial, viral, and fungal diseases and management. Major and minor pests and management. Integrated Disease and Pest Management (IDPM)

Seri Bio-Technology– Introduction, Basics of Plant and Silkworm Bio-Technology Importance of breeding in Mulberry and Silkworm, Tissue culture. Sericulture Research and Development Institutes in India.

Cytology and anatomy of mulberry – Introduction, Structure of cell, cell organelles

Morphology and life cycle of Bombyx mori – Introduction, study of life stages and cycle, differences in larva, pupa and moth, metamorphosis.

Parental Races – Introduction, Distribution, seed organization, races, Volitionism, moultinism breeds/hybrids in current use.

Grainage Equipment – Introduction, Prerequisite of Grainage, Grainage model building, equipment and uses, disinfection, grainage registers /records.

Grainage Operations – Introduction, selection of seed races, procurement, transportation and preservation of seed cocoons, synchronization, moth emergence, sex separation, coupling and decoupling, ovi position.

Seed Production – Introduction, preparation of layings, Sheet eggs, loose eggs, mother moth examination, surface sterilization, assessment of layings and incubation of eggs.

Acid treatment and hibernation schedules – Introduction, types of eggs, physical and chemical
<table>
<thead>
<tr>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seed Economics</strong></td>
<td>Introduction, economics for 10 lakhs seed capacity</td>
</tr>
<tr>
<td><strong>Silk Reeling Industry</strong></td>
<td>Introduction, importance of reeling industry, scope and limitations.</td>
</tr>
<tr>
<td><strong>Cocoon Quality and Cocoon Sorting</strong></td>
<td>Introduction, physical and commercial characters of silk, Principles for assessment, Tactile and Numerical Tests, Good cocoons, Defective cocoons, model problems, model problems.</td>
</tr>
<tr>
<td><strong>Cocoon Marketing</strong></td>
<td>Introduction, Rules and Acts, Price Fixation, model problems.</td>
</tr>
<tr>
<td><strong>Cocoon Stiffling</strong></td>
<td>Introduction, Stiffling methods, storage of cocoons, ushnakoti, sorting of cocoons de flossing, Riddling, mixing.</td>
</tr>
<tr>
<td><strong>Cocoon cooking and Brushing</strong></td>
<td>Introduction, Reeling water, cooking and methods of cooking Brushing and methods of Brushing</td>
</tr>
<tr>
<td><strong>Reeling</strong></td>
<td>Introduction, Reeling apparatus and Machines, Reeling water, re-reeling, Silk Examination, Lacing and skeining, making of skeins, book making and baling, Spun silk making and Non-mulberry cocoon reeling.</td>
</tr>
<tr>
<td><strong>Reeling economics</strong></td>
<td>Introduction, Economics of Charaka, cottage basin and multi-end reeling machines, reeling records and uses.</td>
</tr>
<tr>
<td><strong>Silk Dyeing</strong></td>
<td>Introduction, Types of Dyes, Degumming, methods of dyeing. Bye products of Reeling</td>
</tr>
</tbody>
</table>