

## CERTIFICATE IN SERICULTURE (CIS)

Term-End Examination

December, 2011

00570

### BLPI-003 : SILKWORM REARING

Time : 2 hours

Maximum Marks : 50

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**Note :** This paper has *three* questions. Answer *any two* questions.  
Marks for each question are indicated against it.

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1. (a) Answer the following in **one** sentence each : **15x1=15**
- (i) How do you identify the male silkworm larval ?
  - (ii) What is metamorphosis ?
  - (iii) What is voltinism ?
  - (iv) Classify the silkworm based on voltinism.
  - (v) Name five popular mulberry multivoltine silkworm breeds.
  - (vi) What contributes to the leaf quality ?
  - (vii) What is disinfection ?
  - (viii) Why rearing house should be away from industrial areas ?

- (ix) What is the ideal temperature and relative humidity required for incubation ?
- (x) What plays a vital role in deciding the voltinism of the silkworm race during incubation ?
- (xi) What is brushing ?
- (xii) Name the primary food plants of Tasar silkworm
- (xiii) In which region Oak Tasar is completely domesticated ?
- (xiv) Write the different ecotypes/strains normally used in Eri silkworm rearing.
- (xv) What is deflossing ?
- (b) Write short notes on *any five* in 3 - 4 sentences each. 5x2=10
  - (i) Process of loose egg brushing.
  - (ii) Mountages used in Oak Tasar silkworm rearing
  - (iii) Incubation of Tasar silkworm eggs
  - (iv) Natural mounting method in mulberry silkworm.
  - (v) Criteria for establishment of CRC
  - (vi) Different crops taken in muga culture
  - (vii) Black boxing of silkworm eggs.

2. (a) Fill in the blanks with appropriate word. 15x1=15
- (i) Eri silkworm feeds on \_\_\_\_\_.
  - (ii) Rearing of silkworms upto second moult is called \_\_\_\_\_ rearing.
  - (iii) In muga silkworm rearing, rearing appliances are disinfected with \_\_\_\_\_ % formaldehyde solution.
  - (iv) Pierced cocoons are due to emergence of \_\_\_\_\_ or \_\_\_\_\_ maggots.
  - (v) Mulberry leaves having \_\_\_\_\_ % protein is considered good for rearing.
  - (vi) The mulberry leaves should be harvested during \_\_\_\_\_ hours of the day.
  - (vii) *Antheraea proylei* is a hybrid of *A pernyi* and \_\_\_\_\_.
  - (viii) Scientific name of silkworm is *Bombyx mori*
  - (ix) The insect passes through four distinctive stages namely egg, larva, pupa and \_\_\_\_\_.
  - (x) Scientific name of \_\_\_\_\_ silkworm is *Philosamia ricini*.

- (xi) The improved hybrids like  $CSR_2 \times CSR_5$  consume about \_\_\_\_\_ kg of mulberry leaf per dfl.
- (xii) Cost incurred on equipments can be classified under \_\_\_\_\_ costs.
- (xiii) \_\_\_\_\_ are the persons who converts cocoone into silkyarn
- (xiv) Dupion silk is an irregular, rough silk reeled from \_\_\_\_\_ cocoons.
- (xv) Characters transmitted from \_\_\_\_\_ to offspring is called inheritance.

(b) Write "TRUE" or "FALSE" 10x1=10

- (i) Net returns refers to the income left after meeting the fixed and variable costs.
- (ii) 2.5 litres of disinfectant solution is required to disinfect 1 sq. meter floor area.
- (iii) Benefit cost ratio should be equal to zero for continuing the business
- (iv) Renditta refers to the number of larvae required to produce 1 kg of raw silk.
- (v) Hybrids yields more than pure races.

- (vi) Tapioca leaf is food of mulberry silkworm
- (vii) The growth rate of chawki worms is slightly higher when compare to grown larvae.
- (viii) Eri Silkworm rearing is done outdoors.
- (ix) Tasar silkworm feeds on *Ricinus Communis*.
- (x) The number of eggs per dfl is commonly known as fecundity.

3. (a) Answer *any five* in 5 - 6 sentences each.  $5 \times 3 = 15$

- (i) What are non-diapause eggs ?
- (ii) Advantages of CRC.
- (iii) Different spinning mountages used in ericulture.
- (iv) Transportation of mulberry cocoons.
- (v) Renditta
- (vi) Significance and assessment of cocoons for defective cocoon percentage.
- (vii) Melted/stained cocoons.

- (b) Differentiate between the following  
(3 - 4 sentences each) 5x2=10
- (i) Cocoon harvester and cocoon deflosser
  - (ii) Tray rearing and bunch rearing in Eri
  - (iii) Multivoltine and Bivoltine
  - (iv) Bullock pair day and man day
  - (v) Harvesting of leaves and cocoons.
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