1. Consider the following statements with respect to larval behaviour of Tasar silkworms.

Statement (A): The larvae feed from the margin to the centre of leaves

Statement (B): They never eat the midrib of leaves

Statement (C): The younger larvae rest on petioles and the older ones rest on the leaf margin

Statement (D): The rate of feeding is minimal before and after the moult

Which statement among the above is incorrect?

(1) (A) only
(2) (A) and (B) only
(3) (C) only
(4) (C) and (D) only

2. Match the following and choose the correct answer from the options given below

Pests of tasar silkworm	Common Name
(A) Blepharipa zebina	(i) Ichneumon fly
(B) Xanthopimpla pedator	(ii) Reduvid bug
(C) Hierodula bipapilla	(iii) Uzi fly
(D) Sycanus collaris	(iv) Praying mantis

Options :

	(A)	(B)	(C)	(D)
(1)	(ii)	(i)	(iv)	(iii)
(2)	(iii)	(i)	(iv)	(ii)
(3)	(iv)	(iii)	(ii)	(i)
(4)	(iii)	(ii)	(iv)	(i)

3. Consider the following statements

Statement (A): The polar view of all the tasar ecoraces has 31 bivalents

Statement (B): All the ecoraces are essentially monobasic

Choose the correct answer

(1) Statement (A) is correct and (B) is incorrect
(2) Statement (A) is incorrect and (B) is correct
(3) Both the statements (A) and (B) are correct
(4) Both the statements (A) and (B) are incorrect

4. Consider the following statements with respect to Eri silkworms

Statement (A): Eri silkworms do not form a ring or peduncle and the cocoons are open at one end and the filament is discontinuous

Statement (B): The eri is generally called as Ahimsa silk since the spinning is done after the moth emergence

Choose the correct option

(1) Statement (A) is correct and (B) is incorrect
(2) Statement (B) is correct and (A) is incorrect
(3) Statements (A) and (B) are correct
(4) Statements (A) and (B) are incorrect

5. With reference to the silk reeling, consider the following pairs :

(A) Charaka – Jettebout

(B) Multi-end-reeling machine – power driven

(C) Kilcha – silk hank

(D) Automatic reeling machine – mechanical brushing

Choose the correct answer from the options given below :

(1) (A) and (B) only

(2) (A) and (C) only

(3) (B) and (D) only

(4) (A), (B), (C) and (D)

6. The tenacity of the silk thread is tested using the machine.

(1) Seriplane

(2) Winding machine

(3) Serigraph

(4) Duplon cohesion tester

7. With reference to the silk reeling match List I with Last II

List I	List II
(A) Jettebout	(i) Grant reeling
(B) Croissure pulleys	(ii) Charaka
(C) Tharapatti	(iii) Feeding of silk filaments
(D) Traverse	(iv) Tavellette croissure

Choose the correct answer from the options given below :

	(A)	(B)	(C)	(D)
(1)	(i)	(ii)	(iii)	(iv)
(2)	(iii)	(iv)	(ii)	(i)
(3)	(ii)	(iii)	(i)	(iv)
(4)	(iv)	(i)	(iii)	(ii)

8. With reference to the non-mulberry silk reeling, match the List I with List II

List I	List II
(A) Tasar reeling	(i) Das type reeling machine
(B) Muga hand reeling	(ii) Natwa
(C) Eri reeling	(iii) Takli
(D) Mechanical Muga reeling	(iv) Bhir

Choose the correct answer from the options given below :

	(A)	(B)	(C)	(D)
(1)	(i)	(ii)	(iv)	(iii)
(2)	(ii)	(iv)	(iii)	(i)
(3)	(iii)	(i)	(ii)	(iv)
(4)	(iv)	(iii)	(i)	(ii)

9. Which among the following is considered as suitable method of silkworm brushing?

(1) Direct leaf feeding method

(2) Paddy husk method

(3) Net method

(4) Bird feather method

10. The optimum temperature and relative humidity for rearing the III instar silkworm larvae is

(1) 27-28°C Temperature; 85-90% Relative humidity

(2) 26-27°C Temperature; 75-80% Relative humidity

(3) 24-25°C Temperature; 85-90% Relative humidity

(4) 23-24°C Temperature; 70-75% Relative humidity

11. The frequency of bed cleaning in silkworm rearing is

(1) Once in I instar, twice in II instar, thrice in III instar and everyday in IV and V instar

(2) Twice in I instar, thrice in II instar, four times in III instar and everyday in IV and V instar

(3) Twice in I instar, thrice in II instar, five times in III instar and everyday in IV and V instar

(4) Once in I instar, twice in II instar, six times in III instar and everyday in IV and V instar

12. With reference to the pebrine disease, consider the following statements :

(A) The infectivity of the pebrine pathogen retains even after three years in the dried body of the female silk moths, in liquid medium for more than 3 weeks and in soil for more than 2 months

(B) The pebrine spore remains in dormant stage in the ordinary conditions of the rearing house for more than one year

(C) The meronts of the pathogen reproduces only by binary fission

Which of the above statements are correct?

(1) (A) and (B) only

(2) (B) and (C) only

(3) (A) and (C) only

(4) (A), (B) and (C)

13. Which among the following the polyhedral bodies are not formed during infection?

(1) NPV

(2) CPV

(3) IFV

(4) Grasserie

14. The egg laying capacity of the mated female Uzifly is

(1) 150-200 eggs

(2) 200-250 eggs

(3) 250-300 eggs

(4) 300-400 eggs

15. In which part of the silk glands the sericin-3 is secreted?

(1) Anterior section of the middle region

(2) Anterior region of the silk glands

(3) Middle section of the middle region

(4) Posterior section of the middle region

16. With reference to the reproductive and embryonic development of silkworm Bombyx mori, consider the following

(A) Bursa copulatrix – Male reproductive organ

(B) Aedeagus – Female reproductive organ

(C) Polar bodies – Female egg nucleus

(D) Cleavage – Blastoderm

How many pairs given above are correctly matched?

(1) Only one pair

(2) Only two pairs

(3) Only three pairs

(4) All four pairs

17. In the developmental biology of silkworm, Bombyx mori on which day the 'Germ band' is formed?

(1) Egg 1 day after laying

(2) Egg 2 days after laying

(3) Egg 3 days after laying

(4) Egg 4 days after laying

18. With reference to the glands and their secretion in silkworm Bombyx Mori, match the following

Glands	Secretion
(A) Lyonnet's gland	(I) Pheramone
(B) Verson's gland	(II) Waxy material
(C) Male accessory glands	(III) Moulting fluid
(D) Scent glands	(IV) Seminal fluid

Choose the correct answer from the options given below :

	(A)	(B)	(C)	(D)
(1)	IV	I	II	III
(2)	I	II	III	IV
(3)	II	III	IV	I
(4)	III	IV	I	II

19. The silkworm, Bombyx mori taste the mulberry leaf through

(1) Mandible

(2) Labium

(3) Labrum

(4) Maxillae

20. Consider the following with respect to irrigation requirement for mulberry for black clay, red loamy and sandy soils, respectively

(A) Frequency of irrigation : 8, 10 and 12 days

(B) Number of irrigations per crop (70 days) : 6,7 and 9

(C) Total water required per crop (gallons) : 1,98,000, 2,31,000 and 2,97,000

(D) Total water required per year per acre (5 crops) in gallons : 9,90,000, 11,55,000 and 14,85,000

Choose the correct answer from the options given below :

(1) (A) and (B) only

(2) (B) and (C) only

(3) (C) and (D) only

(4) (B),(C) and (D)

21. Which of the following is incorrect with respect to rainfed mulberry?

(1) True soil moisture stress is experienced when annual rainfall is less than 700 mm with limited number of rainy days.

(2) Mulberry variety S-13 is recommended for red loamy soil and S-34 for black cotton soil.

(3) Planting should be undertaken during the commencement of monsoon.

(4) Chemical fertilizers requirement during first year of establishment of mulberry is 100 : 50 : 50 NPK kg/ha/year.

22. The causative organism for bacterial leaf spot in mulberry is

(1) Cercospora moricola

(2) Phyllactinia corylea

(3) Pseudomonas mori

(4) Peridospora mori

23. A bionematicide Verticillium Chlamydosporium can be applied with neem cake for the control of which of the following disease of mulberry.

(1) Stem canker

(2) Root rot

(3) Collar rot

(4) Root knot

24. Consider the following pairs.

Pest		Scientific name
A. Bihar hairy caterpillar	–	Spilosoma obliqua
B. Cutworm	–	Spodoptera litura
C. Leaf roller	–	Paraponyx marginatus
D. Pink mealy bug	–	Maconellicoccus hirsutus

How many pairs given above are correctly matured"

(1) Only one pair

(2) Only two pairs

(3) Only three pairs

(4) All four pairs

30. Consider the statements

Statement A: Hammock formation is a part of cocoon spinning in Tasar silkworms

Statement B: The ring and peduncle are very weak and hence the worm takes the support of hammock for cocooning

Choose the correct option

(1) Statement A is correct and B is incorrect

(2) Statement B is correct and A is incorrect

(3) Both the Statements A and B are correct

(4) Both the Statements A and B are incorrect

31. The shining spots in the tasar larvae are found on

(1) 4th to 7th abdominal segments

(2) 7th and 9th abdominal segments

(3) 2nd to 7th abdominal segments

(4) 2nd and 3rd thoracic segments

32. The costs which do not change in magnitude as the amount of output of the production process changes and are incurred even when production is not undertaken refers to

(1) Fixed costs

(2) Variable costs

(3) Opportunity costs

(4) Short run costs

33. Which of the following is an example for variable cost of cocoon production

(1) Room heater

(2) Ant well

(3) Humidifier

(4) Disease free layings

34. In terms of distribution of income, who among the following gets maximum share

(1) Cocoon grower

(2) Reeler

(3) Twister

(4) Trader

35. Calculate the benefit : cost ratio for the following data

Total cost of mulberry production : Rs. 8,000/-

Total returns from mulberry : Rs. 15,000/-

Choose the correct answer

(1) 1.675:1

(2) 1.875:1

(3) 0.633:1

(4) 0.533:1

36. In multi-end reeling machine, the raw silk production varies from

(1) 200-300 g/basin/day

(2) 300-400 g/basin/day

(3) 400-600 g/basin/day

(4) 600-800 g/basin/day

37. The number of ends in Automatic reeling machine are

(1) 100

(2) 200

(3) 300

(4) 400

38. Match the following and choose the correct answer from the options given below :

Follicular imprints	Silkworm species
(A) Round	(i) Antheraea yamamai
(B) Oval	(ii) Antheraea mylitta
(C) Polygonal	(iii) Antheraea assamensis
(D) Irregular	(iv) Antheraea sivalica

Options :

	(A)	(B)	(C)	(D)
(1)	(ii)	(iii)	(iv)	(i)
(2)	(iii)	(iv)	(i)	(ii)
(3)	(ii)	(i)	(iv)	(iii)
(4)	(iv)	(iii)	(ii)	(i)

39. Consider the following statements:

Statement (A) : There is correlation between the third anal vein and the flying capacity of the moths.

Statement (B) : The third anal vein is well developed in wild species.

Choose the correct answer :

(1) The statement (A) is correct and (B) is incorrect

(2) The statement (B) is correct and (A) is incorrect

(3) Both the statements (A) and (B) are incorrect

(4) Both the statements (A) and (B) are correct

40. Match the following with respect to diseases of castor.

Diseases	Causing organisms
(A) Seedling blight	(i) Melampsora ricini
(B) Leaf rust	(ii) Cercospora ricinella
(C) Alternaria blight	(iii) Phytophthora Colocasias
(D) Leaf spot	(iv) Alternaria ricini

Choose the correct answer :

	(A)	(B)	(C)	(D)
(1)	(ii)	(iv)	(i)	(iii)
(2)	(iv)	(iii)	(ii)	(i)
(3)	(ii)	(i)	(iv)	(iii)
(4)	(iii)	(i)	(iv)	(ii)

41. Which among the following is not considered to be the best 'tool' to reach maximum people in sericulture extension programme?

(1) Exhibition

(2) Farm and home visit

(3) Campaign

(4) Television

42. Calcified cocoons are those which contain chrysalids which have been destroyed by the

(1) Protozoa

(2) Virus

(3) Bacteria

(4) Fungus

43. Kakame is calculated using the formula

(1) (Price of raw silk + cost of production) – (Income from byproduct + expected profit) ÷ 3.759

(2) (Price of raw silk + Income from byproducts) – (Cost of production + expected profit) ÷ 3.759

(3) (Price of raw silk + expected profit) – (Cost of production + Income from byproducts) ÷ 3.759

(4) (Price of raw silk + net profit) – (Cost of production + Income from byproducts) ÷ 3.759

44. The circumference of the Epprovette reeling machine is

(1) 1.125 m

(2) 1.135 m

(3) 1.145 m

(4) 1.155 m

45. Consider the following with respect to chief properties of silk

(A) Silk fibroin is comparatively stable against heat.

(B) Dilute hydrochloric and sulphuric acids dissolve a larger amount of silk.

(C) Oxidizing agents react destructively with the silk fibre.

Choose the correct answer :

(1) (A) only

(2) (A) and (C) only

(3) (B) and (C) only

(4) (A), (B) and (C)

46. With reference to the Grant reeling, the gear ratio is maintained to get the diamond shaped designs across the face of the silk hank. It is formed due to

(1) the forward and backward movements of the reel

(2) the forward and backward movements of the croissure

(3) the forward and backward movements of the Traverse

(4) the forward and backward movements of the Jettebout

47. The raw silk percentage is calculated using the formula

(1) $\frac{\text{Weight of raw silk reeled}}{\text{Weight of cocoon or shell}} \times 100$

(2) $\frac{\text{Weight of cocoon or shell}}{\text{Weight of raw silk reeled}} \times 100$

(3) $\frac{\text{Weight of raw silk reeled}}{\text{Filament length}} \times 100$

(4) $\frac{\text{Filament length}}{\text{Weight of raw silk reeled}} \times 100$

48. Which among the following in silkworm is considered as Machano and Thermoreceptor?

(1) Maxillae

(2) Integument

(3) Spinneret

(4) Upper lip

49. With reference to the endocrine glands of silkworm Bombyx mori. Match the following :

(A) Supraoesophageal ganglion	(I) Juvenile hormone
(B) Corpora cardiaca	(II) Diapause hormone
(C) Corpora allata	(III) Activatron hormone
(D) Suboesophageal ganglion	(IV) Prothoracico-trophic hormone

Choose the correct answer from the options given below

	(A)	(B)	(C)	(D)
(1)	(II)	(I)	(IV)	(III)
(2)	(IV)	(III)	(II)	(I)
(3)	(III)	(IV)	(I)	(II)
(4)	(I)	(II)	(III)	(IV)

50. With reference to the chromosome number of silkworms, consider the following pairs?

Name of the silkworm	Chromosome number (haploid)
(A) Antheraea mylitta	(I) n = 28
(B) Antheraea assama	(II) n = 15
(C) Phylosamia ricini	(III) n = 14
(D) Bombyx mori	(IV) n = 31

How many pairs given above are correctly matched?

(1) only one pair

(2) only two pairs

(3) only three pairs

(4) all four pairs

51. In which stage of silkworm larva maximum division of spermatogonia occurs

(1) late fourth instar

(2) early fifth instar

(3) middle of the fifth instar

(4) third instar

52. In Silkworm, Bombyx mori '+v' gene is responsible in expression of the character

(1) univoltine

(2) bivoltine

(3) multivoltine

(4) all of the above

53. The wingless grasshopper infesting mulberry belong to the insect order

(1) Coleoptera

(2) Orthoptera

(3) Neuroptera

(4) Lepidoptera

54. Which of the following is incorrect with respect to objectives of pruning in mulberry?

(1) To induce more vegetative growth.

(2) To retain dead and defunct wood.

(3) To expose the plant to better sunlight.

(4) To make cultural operations easier.

55. With respect to quality of water required for mulberry, irrigation water should contain.

(1) Less than 1,000 ppm of total soluble salts.

(2) Less than 1,400 ppm of total soluble salts.

(3) Less than 1,800 ppm of total soluble salts.

(4) Less than 2,000 ppm of total soluble salts.

56. Which of the following is a concentrated organic manure?

(1) Farm yard manure

(2) Compost

(3) Neem cake

(4) Vermicompost

57. Which of the following is a green-leaf manure crop?

(1) Sunhemp

(2) Glyricidia

(3) Dhaincha

(4) Horsegram

58. In a plant spacing of 9' × 4', number of plants in one acre of land is

(1) 1134

(2) 1234

(3) 1343

(4) 1433

59. With reference to the characteristic features of the family Bombycidae, consider the following

(A) Antennae Bipectinnate

(B) Maxillary palpi and tymphanal organs present

(C) Proboscis present

(D) Chaetosoma absent

Which of the above are incorrect?

(1) (A) and (B) only

(2) (B) and (C) only

(3) (A) and (C) only

(4) (A), (B) and (C)

60. India has been a member nation of the International Sericultural Commission since
(1) 1958
(2) 1960
(3) 1962
(4) 1964

61. Which of the following component of sericulture is an agricultural based activity?
(1) Host plant cultivation
(2) Silk reeling
(3) Silk twisting
(4) Silk weaving

62. Consider the following with respect to functions of technical service centres in sericulture

(A) Provide technical guidance for mulberry cultivation and silkworm rearing

(B) Organizing on-farm training on improved sericultural technologies

(C) Undertake production of disease free layings

Choose the correct answer
(1) Statement (A) is correct and (C) is incorrect
(2) Statements (A) and (B) are incorrect
(3) Statements (B) and (C) are correct
(4) All the statements are correct

63. Towards the development of sericulture under the state and central sectors during 8th plan (1992-93 – 1996-97) the planning commission, government of India made an allocation of
(1) 70,105 lakhs
(2) 80,105 lakhs
(3) 90,105 lakhs
(4) 95,105 lakhs

64. Which of the following item of silk good fetch more earning in export (2022-23)?
(1) Raw silk
(2) Silk Yarn
(3) Readymade garments
(4) Silk carpet

65. Consider the following statements with reference to growth of mulberry.

(A) A rainfall range from 600 to 2,500 mm per annum is considered ideal

(B) The optimum elevation for mulberry growth is about 700 m above MSL

(C) An atmospheric humidity of 85 to 90% is ideal for mulberry growth

Choose the correct answer from the options given below.
(1) Statements (A) and (B) are correct
(2) Statement (A) is correct and (B) is incorrect
(3) Statements (B) and (C) are correct
(4) All the statements are correct

66. Consider the following with respect to morus species.

(A) Morus alba is cultivated in Punjab, north-west Himalayas ascending to 3,500 m

(B) Most of the Indian varieties of mulberry belong to Morus laevigata

(C) Morus serrata grows as trees upto a height of 20 to 25 m

Choose the correct answer
(1) (A) only
(2) (A) and (C) only
(3) (B) and (C) only
(4) (A), (B) and (C)

67. In by-products of silkworm rearing, larval litter accounts for

(1) 20% of inserted food

(2) 40% of inserted food

(3) 60% of inserted food

(4) 80% of inserted food

68. In early eighties, a systemic effort to promote biotechnological research in India began with the establishment of 'National Biotechnology Board' under the

(1) Department of Agriculture

(2) Department of Science and Technology

(3) Department of Textiles

(4) Department of Forestry

69. For long term storage of germ plasm, tissue cultures may be frozen and stored in liquid nitrogen at

(1) – 166°C

(2) –176° C

(3) –186° C

(4) –196° C

70. The majority of the molecular maps constructed upto early 90's are based on

(1) PCR

(2) RFLPs

(3) AFLPs

(4) RAPD

71. In breeding programme, which of the following provide a better alternative to the classical phenotypic selection.

(1) Molecular markers

(2) Clonal Selection

(3) Genetic Selection

(4) In-vitro Selection

72. The Silkworm genome is one sixth the size of human genome, comprised of

(1) 430 million base pairs

(2) 530 million base pairs

(3) 630 million base pairs

(4) 730 million base pairs

73. The grey blight of leaf in *Machilus bombycine* is caused by

(1) *Paropsylla besooni*

(2) *Phyllactenia corylea*

(3) *Cephaleurus sp*

(4) *Pestalotiopsis dessiminate*

74. Which among the following statements is incorrect with respect to pebrine disease in tasar silkworm?

Statement (A): The pathogen responsible for pebrine disease is *Nosema sp*

Statement (B): The life cycle of this pathogen includes three stages such as spore, planont and meront

Statement (C): The spores of *Nosema* invade the hindgut epithelium, ovary and testis

Statement (D): The proliferation of the meront to produce newly formed spore causes cells to swell, burst and disintegrate

(1) Only (A)

(2) Only (C)

(3) Only (C) and (D)

(4) Only (B) and (C)

75. Consider the following statements with respect to tasar ecoraces

Statement (A): Godamodal and Nalia are the wild tasar ecoraces known as *Antheraea paphia*

Statement (B): Sukinda and daba ecoraces are belong to *Antheraea mylitta*

Choose the correct answer

(1) Statement (A) is correct and (B) is incorrect

(2) Statement (B) is correct and (A) is incorrect

(3) Both the statements (A) and (B) are correct

(4) Both the statement (A) and (B) are incorrect

76. Match the following

Tasar Silkworm Diseases	Symptoms
(A) Polyhedrosis	(i) Black spots over the integument
(B) Bacteriosis	(ii) pale and inactive and dorsal bending of body
(C) Mycosis	(iii) Larva becomes soft and sluggish
(D) Microsporidiosis	(iv) Sealing of anal lips

Options :

	(A)	(B)	(C)	(D)
(1)	(ii)	(iii)	(iv)	(i)
(2)	(iii)	(iv)	(ii)	(i)
(3)	(iv)	(ii)	(i)	(iii)
(4)	(ii)	(i)	(iv)	(iii)

77. Consider the following statements :

Statement (A) : Cocoon stifling leads to killing the pupae inside without affecting the structure of silk.

Statement (B) : Stifling helps to tighten the silk threads in the cocoon to get continuous silk thread.

Choose the correct answer :

(1) Statement (A) is correct and (B) is incorrect
(2) Statement (B) is correct and (A) is incorrect
(3) Both the Statement (A) and (B) are correct
(4) Both the Statement (A) and (B) are incorrect

78. Ushna Koti is a method of cocoon stifling practiced in

(1) Karnataka
(2) Assam
(3) West Bengal
(4) Jammu and Kashmir

79. Match the following :

Names of silk waste	Countries
(A) Knubbs	(i) Japan
(B) Kibiso	(ii) England
(C) Kotabaria	(iii) Turkey
(D) Curlies	(iv) India

Options :

	(A)	(B)	(C)	(D)
(1)	(iv)	(i)	(ii)	(iii)
(2)	(ii)	(i)	(iv)	(iii)
(3)	(ii)	(iii)	(iv)	(i)
(4)	(iii)	(iv)	(i)	(ii)

80. Consider the following statements :

Statement (A) : Mill damp is the humid mist which forms in a mill when the steam in the air condenses.

Statement (B) : Mill damp aggravates the defects such as ribbing and plastering in the skein.

Choose the correct answer :

(1) Statement (A) is correct and (B) is incorrect
(2) Statement (B) is correct and (A) is incorrect
(3) Both the Statement (A) and (B) are incorrect
(4) Both the Statement (A) and (B) are correct

81. With reference to tensile strength of silk, consider the following

(A) Silk has enormous tensile strength with a breaking load of nearly 5000 kg/cm^2 or as much as 4g/denier.

(B) Tenacity of silk varies with the breeds of cocoons

(C) Raw bave has greater tenacity than degummed bave.

Choose the correct answer.

(1) (A) and (B) only
(2) (A) and (C) only
(3) (B) and (C) only
(4) (A), (B) and (C)

82. The chromosome formula (ZZ for Male and ZW for Female) was established by

(1) Tanaka, 1916

(2) Kawaguchi, 1928

(3) Hasimoto, 1933

(4) Tazima, 1944

83. Which among the following silkworm breed is considered as the product of inbreeding?

(1) Kapila

(2) Kaveri

(3) Varuna

(4) Pure Mysore

84. With reference to the hybrids of silkworm. Match the following :

(A) $PM \times NB_4D_2$	(I) Bivoltine hybrid
(B) $FC_1 \times FC_2$	(II) Poly hybrid
(C) $CSR_2 \times CSR_4$	(III) Double hybrid
(D) $PM \times FC_1$	(IV) Single cross hybrid

Choose the correct answer from the options given below :

	(A)	(B)	(C)	(D)
(1)	(IV)	(III)	(I)	(II)
(2)	(I)	(II)	(III)	(IV)
(3)	(III)	(IV)	(II)	(I)
(4)	(II)	(I)	(IV)	(III)

85. Which among the following is considered as Basic seed farm?

(1) P_1 centre

(2) P_2 centre

(3) P_3 centre

(4) P_4 centre

86. In the grainages synchronization of moth emergence is made by the following conditions

(1) Exporing the pupae to 2 lux of light with 25°C at 6.00 a.m

(2) Exporing the pupae to 1 lux of light with 22°C at 6.00 a.m

(3) Exporing the pupae to 1 lux of light with 21°C at 6.00 a.m

(4) Exporing the pupae to 1 lux of light with 20°C at 6.00 a.m

87. Indicate the correct process of hot acid treatment in the grainages

(1) Treat the eggs (BV) in HCl with sp.gravity 1.064 at 36°C for 5.5 minutes

(2) Treat the eggs (BV) in HCl with sp.gravity 1.064 at 46°C for 5.5 minutes

(3) Treat the eggs (BV) in HCl with sp.gravity 1.064 at 56°C for 5.5 minutes

(4) Treat the eggs (BV) in HCl with sp.gravity 1.064 at 56°C for 30 minutes

88. With reference to the disinfectants in silkworm rearing, consider the following pairs

(A) Ankush – Room disinfectant

(B) Sanitech – Bed disinfectant

(C) Bleaching powder – Room disinfectant

(D) Suraksha – Bed disinfectant

How many pairs given above are correctly matched?

(1) Only one pair

(2) Only two pairs

(3) Only three pairs

(4) All four pairs

89. Based on the 'Voltinism', Match the following :

Name of the Silkworm	Voltinism
(A) Bombyx mori	(I) Multivoltine
(B) Anthereae Proylei	(II) Uni and Bivoltine
(C) Anthereae assama	(III) Bivoltine
(D) Phylosamia cynthia	(IV) Uni, bi and Multivoltine

Choose the correct answer from the options given below

	(A)	(B)	(C)	(D)
(1)	IV	III	I	II
(2)	I	II	III	IV
(3)	IV	I	II	III
(4)	III	IV	I	II

90. The silkworm race C-NICHI was imported to India in earlier part of this century. Due to continuous rearing it has been acclimatized as multivoltine race. The original origin of this race is

(1) Univoltine race of Japan

(2) Bivoltine race of Japan

(3) Univoltine race of Europe

(4) Bivoltine race of China

91. In Adult silkmoth of Bombyx mori each thorasic segment bears a pair of legs. Each leg is five-jointed, the sequence of jointed parts are

(1) Coxa, femur, trochanter, tibia and tarsus

(2) Coxa, tibia, trochanter, femur and tarsus

(3) Coxa, trochanter, tibia, femur and tarsus

(4) Coxa, trochanter, femur, tibia and tarsus

92. With reference to the anatomy of silkworm consider the following pairs

(A) Peritrophic membrane	– Midgut
(B) Taenidia	– Trachea
(C) Alary muscles	– Hind gut
(D) Peritreme	– Spiracle

How many pairs given above are correctly matched?

(1) Only one pair

(2) Only two pairs

(3) Only three pairs

(4) All four pairs

93. In male reproductive system of silkmoth the duct which carries the sperm from Testis to the seminal vescicle is

(1) Seminiferous tubule

(2) Vasa efferentia

(3) Vas deferens

(4) Ejaculatory duct

94. Most mulberry breeders all over the world have succeeded in inducing polyploids through

(1) Colchicine

(2) Diethyl sulphate

(3) Hydroxylamine

(4) Malic hydrazide

95. Which of the following is correct with respect to grafting?

(1) Root grafting is the most successful of the grafting methods.

(2) Crown grafting is followed to renovate the old plant

(3) Bud grafting is resorted to when the scion material is in excess supply

(4) In wedge grafting, more than once scion is inserted into the stock, to get a bushy growth

96. In Karnataka, the mulberry soils are predominantly

(1) Alluvial

(2) Red loam

(3) Peaty

(4) Sandy

97. Recommended dose of chemical fertilizers required for irrigated mulberry under shoot harvest system is

(1) 350 : 140 : 140 kg NPK/ha/year

(2) 280 : 120 : 120 kg NPK/ha/year

(3) 300 : 120 : 120 kg NPK/ha/year

(4) 350 : 120 : 120 kg NPK/ha/year

98. Which of the nutrient deficiency is usually associated with coarse structured, alkaline and low organic content soils

(1) Zinc

(2) Nitrogen

(3) Calcium

(4) Phosphorus

99. Consider the following statements with reference to soil sampling.

(A) Soil samples should not be collected just after rains or irrigation, burning of crop residues, etc.

(B) Samples should represent truly soil variation

(C) Soil samples have to be collected from only one spot in each sub-plot or sampling unit

Choose the correct answer

(1) Statement (A) is correct and (B) is incorrect

(2) Statements (A) and (B) are correct

(3) Statement (C) is correct and (B) is incorrect

(4) All the three statements are correct

100. Which of the following is incorrect with respect to acidic soils?

(1) Soil becomes acidic because of its origin from material is acidic in nature

(2) Acidic soils occur in the low rainfall areas

(3) Soil becomes acidic due to excessive leaching of lime and other bases

(4) Soil becomes acidic because of continuous use of acid forming fertilizers