



Booklet Series

**A**

No. of Printed Pages : 16

Serial Number of the  
Test Booklet

**621089**

**PAPER CODE**

**PAPER/II-06/SFA**

Roll No. : \_\_\_\_\_

Name of the Candidate : \_\_\_\_\_

**Test Duration : 03 Hours**

**Total Questions : 100**

**Total Maximum Marks : 200**

**INSTRUCTIONS TO CANDIDATES**

1. Candidates will be admitted to the Examination Hall/Room on production of their Admit Card and Original ID such as **EPIC/Aadhaar/Driving License** with a view to establish the true identity of the candidate.
2. Candidates shall reach the venue of examination at least 30 minutes in advance and admission will be refused to a candidate who is late by 10 minutes from the start of the examination.
3. No candidate shall be permitted to leave the Examination Hall/Room until the time for the examination is over or until permitted to do so but not until the half of the allotted time.
4. Candidates must use a **BLUE/BLACK** ball point pen **ONLY** to make entries on the OMR Answer Sheet.
5. The candidates should not bring any articles (other than those specified above) such as books, notes, loose sheets, mobile phones, pagers, digital diaries, calculators, smart watches, etc. inside the Examination Hall/Room. Any candidate found in possession of the said articles will be liable to be de-barred from applying all future examinations to be conducted by the Board.
6. After receiving the Test Booklet with OMR inserted, the candidates may pull out the OMR Answer Sheet and fill in the necessary details. However the candidates are not allowed to break open the seal of the Test Booklet until the invigilator informs them to do so.
7. Mark carefully your Roll Number, Question Booklet Code and Booklet Series on the OMR Answer Sheet and append signature at the appropriate place. Write your Roll Number and **Name in the Question Booklet**. In the absence of the Roll Number and Question Booklet Series on the OMR Answer Sheet, it may NOT be evaluated.
8. The entire Test is of Objective Type Questions comprising 100 questions.
9. Candidates must check that the Question Booklet contains 100 multiple choice questions. If any discrepancy found, report to the invigilator immediately.
10. Every question carries a total of 2 marks each. Candidates will also keep in mind that there is negative marking of 1/3<sup>rd</sup> for every wrong answer.
11. Rough work may be done on the space provided in this Question Booklet, but not on the OMR Answer Sheet.
12. In the event of a mistake made in marking the Roll Number in the OMR Answer Sheet or the OMR Series the candidates will not be given a new OMR Answer Sheet but he/she will be allowed to use whitener or correcting fluid for correction of the Roll Number and the Booklet Series only.
13. **Change of answer will not be permitted in the OMR Answer Sheet. Using of correcting fluid (of any sort) will be treated as wrong attracting negative marking.**
14. The candidates must abide by such instructions as may be specified on the cover of the Answer Paper or instructions to candidates given at the back of the Admit Card. If a candidate fails to do so or indulges in improper conduct, he/she will render himself/herself liable to expulsion from the examination or such other punishment as the Board deemed fit to impose.
15. At the end of the Test, candidates must submit the OMR Answer Sheet to the invigilator on duty. Candidates shall be allowed to take their Question Booklet only after the end of the examination session.
16. Any candidate found to be intoxicated with alcohol and/or psychotropic substances will be expelled from the Examination Hall/Room.
17. Examination centre once opted cannot be changed.

**PLEASE REFER THE BACKSIDE OF THE QUESTION BOOKLET FOR MORE INSTRUCTIONS.**

**PAPER/II-06/SFA**

**SEAL**



1. Which of the following is not a disinfectant ?

- (A) Formalin
- (B) Bleaching powder
- (C) Slacked lime
- (D) Salt

2. Which of the following is advantages of loose egg production ?



- (A) Superior quality
- (B) Increased egg recovery
- (C) Increased hatchability
- (D) All of the above

3. *B.mori* abdomen is composed of

- (A) 6 segments
- (B) 10 segments
- (C) 8 segments
- (D) 12 segments



4. Which of the following is not an external morphology of *B.mori* ?

- (A) Head
- (B) Abdomen
- (C) Thorax
- (D) Mouth

5. When is the disinfection schedule followed in the chawki rearing house ?



- (A) Occurrence of uzifly
- (B) Preventing rats and birds
- (C) Occurrence of rootknot nematode
- (D) Occurrence of pebrine in the previous crop rearing

6. Which of the following green leaf manuring plants grown along with the mulberry ?

- (A) Pongamia
- (B) Glyricidia
- (C) Both (A) and (B)
- (D) None of the above

7. Botanical name of Oak Tasar Silkworm



- (A) *Antheraea mylitta*
- (B) *Antheraea frithi*
- (C) *Antheraea proylei*
- (D) *Bombyx mori*

8. Silkworm belongs to order

- (A) Psocoptera
- (B) Lepidoptera
- (C) Odonata
- (D) Orthoptera





9. Damaging stage of Pink mealy bug is  
(A) Egg (B) Adults  
(C) Nymphs (D) Both (B) and (C)
10. The process for producing single yarn out of discontinuous filament of cocoon is known as  
(A) Grainage (B) Skeining  
(C) Spinning (D) Reeling
11. Which of the following statement is incorrect regarding purpose of incubation ?  
(A) It is the first important step in silkworm seed management  
(B) During incubation, optimum temperature of 25°C, 75% relative humidity is required  
(C) 8 hours light and 16 hours dark are to be maintained for the uniform development of silkworm egg  
(D) All of the above
12. What is the characteristic feature of female while sex separation of pupae ?  
(A) Slender and small in size  
(B) Darker skin colour  
(C) Bigger and stout in size  
(D) Pointed posterior end

13. Mulberry garden is generally established through



- (A) Seeds  
(B) Suckers  
(C) Stem cuttings  
(D) Grafting
14. Young caterpillars are called  
(A) Cocoon  
(B) Chawki worm  
(C) Mori worm  
(D) Younger worm
15. What is the Material to liquor ratio (M.L ratio) of standard recipe of degumming ?  
(A) 1 : 15  
(B) 1 : 1  
(C) 1 : 30  
(D) None of the above
16. Which of the following statements are incorrect regarding Palade layer ?  
(A) Silk waste of residual cocoons from the reeling basin is called as palades  
(B) The silk remaining is used for only hand spinning  
(C) This used water contains dissolved amino acids and vitamins  
(D) All of the above



17. Which acid is used for preventing the diapause from immediate brushing of egg in bivoltine silkworms ?



- (A) Hydrochloric acid
- (B) Sulphuric acid
- (C) Acetic acid
- (D) None of the above

18. Which of the following is grainage equipment?

- (A) Moth tray
- (B) Egg cards
- (C) Thermometer
- (D) All of the above

19. A clear-cut increase in plant grown and leaf chlorophyll content can be observed due to spray of

- (A) Triacntanol
- (B) Zinc
- (C) Azotobacteria
- (D) Seriboost

20. Which of the following is not a component of silk filament ?

- (A) Fibroin
- (B) Sericin
- (C) Fat and wax
- (D) Glycerin

21. Life cycle of pupa silkworm

- (A) 10 days    (B) 20 days
- (C) 30 days    (D) 50 days

22. Silk is made up of \_\_\_\_protein.

- (A) Fibroin
- (B) Tubulin
- (C) Collagen
- (D) Elastin

23. Which method of irrigation more gainfully utilized in paired row system of plantation ?



- (A) Sprinkler
- (B) Drip
- (C) Flood
- (D) Micro jet

24. Which micronutrient required for leaf yield in mulberry ?




- (A) Nitrogen
- (B) Zinc
- (C) Potassium
- (D) None of the above



25. Which of the following is a Mycoplasma disease of mulberry ?

- (A) Leaf mosaic
- (B) Dwarf disease
- (C) Leaf blight
- (D) Rot disease



26. Which of the following disease is controlled by application of sulphur fungicides ?  
(A) Violet root rot  
(B) Leaf spot  
(C) Powdery mildew  
(D) Leaf rust
27. Which of the following statements are correct regarding Binomial distributions ?  
 (A) Mean is always greater than variance  
(B) Mean is always lesser than variance  
(C) Mean is equal to variance  
(D) Mean is equal to zero
28. Gaussian distribution is also called  
(A) Binomial distribution  
(B) Normal distribution  
(C) Poisson distribution  
(D) None of the above
29. The process of reeling the bundles of yarn to skein lacing is known as  
 (A) Shedding (B) Spinning  
(C) Weaving (D) Twisting
30. Which of the following is a types of reeling ?  
(A) Charaka  
(B) Cottage Basin  
(C) Multi end reeling machine  
(D) All of the above
31. A mating ritual induced by female's secretion of a pheromone in silkworm is known as  
(A) Chawki  
(B) Harpes  
(C) Bombykol  
(D) Labin
32. Mulberry silkworm male perform a  
(A) Flutter dance  
(B) Waggle dance  
(C) Clockwise dance  
(D) Ring dance
33. Largest producer of silkworm in World  
(A) Japan  
(B) China  
(C) USA  
(D) Italy
34. Mulberry is basically \_\_\_\_\_ species.  
 (A) Chasmogamy  
(B) Dicogamy  
(C) Dioecious  
(D) None of the above





35. Which of the following is not a rearing room pest of silkworm ?



- (A) Ant
- (B) Uzifly
- (C) Fruitfly
- (D) Straw itch mite

36. Hanging down symptom is characteristic feature of \_\_\_\_\_ disease.

- (A) Pebrine
- (B) Smithea virus
- (C) Grasserie
- (D) Flacherie

37. The ability of many insect groups to produce from one to several generations a year is called as

- (A) Brushing
- (B) Univoltine
- (C) Grainage
- (D) Voltinism

38. The process of breaking, altering or scratching seed covering to make it permeable to water and gases is called as



- (A) Scarification
- (B) Stratification
- (C) Thermo dormancy
- (D) Rudimentary

39. Which of the following is not an enzymatic silk degumming ?

- (A) Trypsin
- (B) Papain
- (C) Bacterial enzyme
- (D) Threonine

40. The univoltine and bivoltine silkworm breeds have the inherent capacity to adopt to a physiological resting phase called as



- (A) Diapause
- (B) Unipause
- (C) Multipause
- (D) Oligopause

41. Which of the following is a secondary macronutrient ?

- (A) Nitrogen
- (B) Iron
- (C) Calcium
- (D) Zinc



42. Which type of harvesting gives throughout year plucking ?

- (A) Branch cutting
- (B) Leaf picking
- (C) Whole shoot harvesting
- (D) Stem harvesting



43. Which of the following statements are incorrect regarding spinning ?

- (A) The process of producing spun silk yarn is known as silk spinning
- (B) Silk reeling is a wet process
- (C) Silk spinning is a dry process
- (D) Degumming is done only with soap and soda solution

44. Which of the following is not a method of finishing process ?



- (A) Doubling (B) Gassing
- (C) Reeling (D) Winding

45. Which of the following growth regulator controller of sucker ?

- (A) 2,4-D
- (B) Maleic hydrazide
- (C) Glyphosate
- (D) None of the above

46. When pollination is carried out by insects known as



- (A) Orthophilous
- (B) Hydrophily
- (C) Entomophilous
- (D) Anemophily

47. Shuttles typically are inserted at the rate of \_\_\_\_\_ times per minute.

- (A) 180 to 220
- (B) 50 to 100
- (C) 20 to 50
- (D) 10 to 50

48. Which of the following is most important and popular value added product in sericulture industry ?



- (A) Pennywort
- (B) Kanji
- (C) Sauerkraut
- (D) Sericha

49. Bacterial growth, cell division features are measured by

- (A) Geometric mean
- (B) Harmonic mean
- (C) Arithmetic mean
- (D) Mode

50. The value of sum of deviations from mean is

- (A) 0 – 1 (B) One
- (C) Zero (D) –1 to +1

51. Light requirement required for silk worm

- (A) 8 hours (B) 10 hours
- (C) 16 hours (D) 12 hours



52. Which of the following statements are correct regarding Lacing ?

- (A) In this process the two ends of the silk hank are tied with coloured thread
- (B) Lacing is done with silk or cotton thread which can be snapped or broken easily by hand
- (C) Unlaced silk has threads in an entangled manner, which results in breaks and finally wastage of silk
- (D) All of the above

53. Which of the following is not a bivoltine race ?

- (A) NB18      (B) NB7
- (C) E16      (D) NB4D2

54. The place where the silkworm eggs are produced in a scientific way is known as



- (A) Brushing
- (B) Webbing
- (C) Cocooning
- (D) Grainage

55. Which test is used, when sample size is large and population SD is known ?

- (A) Z-test
- (B) t-test
- (C) F-test
- (D) None of the above

56. In positively skewed distribution

- (A) Mean > Median > Mode
- (B) Mean < Median < Mode
- (C) Mean < Median > Mode
- (D) Mean = Median = Mode

57. Which of the following statements are correct regarding multivoltine eggs ?



- (A) Eggs are deep yellow in color and non hibernating
- (B) Acid treatment is required
- (C) Eggs are pale yellow in color and hibernating
- (D) None of the above

58. Rearing of young age silkworms upto 2<sup>nd</sup> moult is called as



- (A) Grainage
- (B) Buried earthen pot method
- (C) Chawki rearing
- (D) Double walled chamber method

59. Which of the following element serves as structural component of polyribosomes involved in protein synthesis ?

- (A) Calcium
- (B) Magnesium
- (C) Nitrogen
- (D) Boron





60. Which of the following alkaline disinfectants is used to destroy silkworm viruses ?

- (A) Bleaching powder
- (B) Chlorinated lime
- (C) Slaked lime
- (D) Chlorine dioxide

61. Duration of egg stages in the life-cycle of mulberry silkworm of Multivoltine breed



- (A) 09-12 days
- (B) 11-14 days
- (C) 03-06 days
- (D) 24-30 days

62. Which of the following is an exotic race of mulberry silkworm ?

(A) Nistari



(B) S-36

(C) Daizo

(D) None of the above

63. \_\_\_\_\_ is used for thread catching during reeling process.

(A) Jettebout

(B) Croissure

(C) Chamboncroissure

(D) Tavellettacroissure

64. Which of the following statements are incorrect regarding quality standards for the water used in the reeling industry ?

- (A) Water should be colourless, limpid and odourless
- (B) pH of the water should be acidic at ambient temperature
- (C) Total hardness should be less than 75 ppm
- (D) Total alkalinity should be less than 50 ppm



65. The degree of freedom for statistics for paired t-test of n pairs of observations is

- (A)  $n - 1$
- (B)  $n + 1$
- (C)  $-1$  to  $+1$
- (D) Zero

66. Which test is used for testing the significance of a mean difference of paired observations ?

- (A) Paired t-test
- (B) Z-test
- (C) Verbal test
- (D) Non verbal test

67. Primary host of Eri silkworm



- (A) *Terminalia tomentosa*
- (B) *Ricinus communis*
- (C) *Terminalia arjuna*
- (D) *Shorea robusta*



68. Silk was discovered in

- (A) India
- (B) China
- (C) Indonesia
- (D) Japan

69. \_\_\_\_\_ derivatives generally form red dyes.

- (A) Azobenzene
- (B) Anthraquinone
- (C) Triphenylmethane
- (D) Both (B) and (C)

70. The silk which is produced by reeling double cocoons is called



- (A) Dupion silk
- (B) Matka silk
- (C) Eri silk
- (D) Muga silk

71. Which of the following is a incorrect match ?

- (A) Root grubs – *Holotrichiaserrata*
- (B) Tussock caterpillar – *Euproctisfraterna*
- (C) Leaf Webber – *Diaphaniapulverulentalis*
- (D) Weevils – *Cercosporamoricola*

72. In Pebrine disease, pathological symptoms are observed in



- (A) Egg
- (B) Adult
- (C) Larval
- (D) All of the above

73. Growing mulberry and intercrops in distinct rows is called

- (A) Mixed cropping
- (B) Row intercropping
- (C) Strip intercropping
- (D) Relay intercropping

74. No distinct rows between mulberry and intercrops is called

- (A) Mixed cropping
- (B) Row intercropping
- (C) Strip intercropping
- (D) Relay intercropping

75. Pollarding is more commonly employed for



- (A) Fruitless trees
- (B) Fruitted trees
- (C) Dead trees
- (D) Infected pest and diseased tree

76. Worm starts spinning at \_\_\_\_\_ stage.

- (A) Fourth
- (B) Third
- (C) Fifth
- (D) Sixth





77. Match the following soil particles and distribution.



**Soil Particles      Diameter (mm)**

- |                |                    |
|----------------|--------------------|
| a. Coarse sand | i. less than 0.002 |
| b. Fine sand   | ii. 0.02 – 0.2     |
| c. Silt        | iii. 0.002 – 0.02  |
| d. Clay        | iv. 0.2 – 2.0      |

- (A) a – i,    b – ii,    c – iii,    d – iv  
 (B) a – ii,    b – iii,    c – iv,    d – i  
 (C) a – iv,    b – ii,    c – iii,    d – i  
 (D) a – iii,    b – iv,    c – ii,    d – i

78. Which of the following elements are necessary for charge balance also act as regulators and carriers ?

- (A) K, Ca and Mg  
 (B) N, S and P  
 (C) Fe, Mn and Zn  
 (D) B, Cu and Cl

79. Incubation facilities ensure the uniform development of

- (A) Embryo  
 (B) Larvae  
 (C) Moulting larvae  
 (D) Adult moth

80. Black boxing should be done on \_\_\_\_\_ stage.



- (A) Moulting  
 (B) Black head  
 (C) Cocooning  
 (D) None of the above

81. Which of the following variety developed by back crossing of hybrid of Matigare local × Kosen with Kosen twice ?

- (A) S-146  
 (B) BC-259  
 (C) Goshocerami  
 (D) ChakMajra



82. Which of the following is not a maturity sign of mounting ?

- (A) Larvae cease to feed and crawl restlessly in search of a corner to attach themselves for spinning  
 (B) They move to corners of the rearing beds ready to spin  
 (C) If picking of mature silkworms is delayed the worms spin on the bed and silk fiber is found on the bed  
 (D) The worms appear pink colour as they are full of silk, they appear shrank in length

83. Which of the following statements are correct regarding selection of seed cocoons ?



- a. Free from pebrine disease  
 b. Live pupae should be above 80%  
 c. Number of cocoons per kg should be in the range of 1000 – 2000  
 d. Average yield of seed cocoons should be above 200kg/100dfls


- (A) Statement d and c are correct  
 (B) Statement b and d are correct  
 (C) Statement a and c are correct  
 (D) Statement a and b are correct



84. The reciprocal of Arithmetic Mean of the reciprocal of given number is known as

- (A) Geometric mean
- (B) Harmonic mean
- (C) Median
- (D) Mode


85. How many whole shoot

 harvesting methods are made in a year ?

- (A) 20-25
- (B) 10-15
- (C) 2-3
- (D) 5-6

86. The defect happen due to improper mounting frames is called


- (A) Inside stained cocoons
- (B) Printed cocoons
- (C) Flimsy cocoons
- (D) Pierced cocoons

87. Chemical used for crushing  of moths for microscoping examination

- (A) Bleaching powder
- (B) Potassium carbonate
- (C) Formalin
- (D) None of the above

88. Which of the following race shows characteristics of white colour during moult and blue colour during blue in spinning stage in sericulture ?

- (A) Japanese race
- (B) Chinese race
- (C) European race
- (D) Indian race

89. Which of the following pair is an incorrectly matched ? 

- (A) White muscardine – *Beaveriabassiana*
- (B) Green muscardine – *Metarhiziumanisopliae*
- (C) Aspergillosis – *Aspergillus flavus*
- (D) Sotro – *Nosema bombycis*

90. Dwarf disease is transmitted by

- (A) Leaf hoppers
- (B) Whitefly
- (C) Grafting
- (D) None of the above

91. Flower does not open at all, ensuring complete self pollination is called

- (A) Monoecious
- (B) Geitonogamy
- (C) Chasmogamy
- (D) Cleistogamy





92. The superiority of F1 in one or more character over its parents known as



- (A) Heterobeltosis
- (B) Heterosis
- (C) Gene cloning
- (D) Acclimatization

93. Which of the following is not a operation of ring spinning ?

- (A) Winding (B) Twisting
- (C) Drafting (D) Reeling

94. Twist per inch is equal to

- (A) Spindle speed/Front roller delivery in inches
- (B) Front roller delivery in inches/ Spindle speed
- (C) Front roller delivery in inches/ Cotton English count
- (D) Cotton English count/Front roller delivery in inches

95. Optimum humidity for first instar silkworms is

- (A) 60% (B) 85%
- (C) 70% (D) 40%

96. Transfer of the newly hatched larvae from eggs on to the wax paper or rearing bed is called

- (A) Stifling (B) Cocooning
- (C) Brushing (D) Moulting

97. Which of the following is a non-parametric test ?



- (A) F-test
- (B)  $\chi^2$ -test
- (C) t- test
- (D) Z-test

98. Muga gives \_\_\_\_\_ colour silk.

- (A) Brick red colour
- (B) White colour
- (C) Golden yellow
- (D) Pink colour

99. Which operation of spinning is caused by the speed of the traveller lagging slightly behind that of the spindle due to yarn drag ?



- (A) Reeling (B) Twisting
- (C) Drafting (D) Winding

100. Spinning of cocoon is completed in

- (A) 48 – 72 hrs
- (B) 4 – 5 hrs
- (C) 10 – 12 hrs
- (D) 80 – 100 hrs