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# **OPSC AAO**

**Previous Year Paper  
Paper-II  
09 Mar, 2025**





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**T.B.C. : AAO-2/24**

**Sl. No. 24313**

**TEST BOOKLET**  
**ASSISTANT AGRICULTURE OFFICER**  
**(PAPER - II)**

**Test Booklet Series**



**K-49**

**Time Allowed : 2½ Hrs.**

**Maximum Marks : 100**

**INSTRUCTIONS TO CANDIDATES**

1. IMMEDIATELY AFTER COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET OF SAME SERIES ISSUED TO YOU.
2. ENCODE CLEARLY THE TEST BOOKLET SERIES **A, B, C OR D**, AS THE CASE MAY BE, IN THE APPROPRIATE PLACE IN THE ANSWER SHEET USING BALL POINT PEN (BLUE OR BLACK).
3. You have to enter your **Roll No.** on the Test Booklet in the Box provided along side. **DO NOT** write anything else on the Test Booklet.
4. **YOU ARE REQUIRED TO FILL UP & DARKEN ROLL NO., TEST BOOKLET / QUESTION BOOKLET SERIES IN THE ANSWER SHEET AS WELL AS FILL UP TEST BOOKLET / QUESTION BOOKLET SERIES AND SERIAL NO. AND ANSWER SHEET SERIAL NO. IN THE ATTENDANCE SHEET CAREFULLY. WRONGLY FILLED UP ANSWER SHEETS ARE LIABLE FOR REJECTION AT THE RISK OF THE CANDIDATE.**
5. This Test Booklet contains **100** items (questions). Each item (question) comprises four responses (answers). You have to select the correct response (answer) which you want to mark (darken) on the Answer Sheet. In case, you feel that there is more than one correct response (answer), you should mark (darken) the response (answer) which you consider the best. In any case, choose **ONLY ONE** response (answer) for each item (question).
6. You have to mark (darken) all your responses **ONLY** on the separate **Answer Sheet** provided, by **using BALL POINT PEN (BLUE OR BLACK)**. See instructions in the Answer Sheet.
7. All items (questions) carry equal marks. All items (questions) are compulsory. Your total marks will depend only on the number of correct responses (answers) marked by you in the Answer Sheet. There shall be negative marking for wrong answers with a deduction of 0.25 marks for every wrong answer.
8. Before you proceed to mark (darken) in the Answer Sheet the responses to various items (questions) in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per instructions sent to you with your **Admission Certificate**.
9. After you have completed filling in all your responses on the Answer Sheet and after conclusion of the examination, you should hand over to the Invigilator the *Answer Sheet* issued to you. You are allowed to take with you the candidate's copy / second page of the Answer Sheet along with the **Test Booklet**, after completion of the examination, for your reference.
10. Sheets for rough work are appended in the Test Booklet at the end.

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1. Soil information systems serves
  - (A) Basis of technology transfer
  - (B) Aid in decision making level
  - (C) Both (A) and (B)
  - (D) None of these
2. Which of the following is soil information system in India?
  - (A) ARS
  - (B) NASIS
  - (C) UMSIS
  - (D) NRIS
3. Who first used the term nanotechnology?
  - (A) Sumio Lijima
  - (B) Norio Taniguchi
  - (C) Eric Drexler
  - (D) Richard Feynman
4. Who launched nanofertilizer in India?
  - (A) Vijay Rupani
  - (B) C.N.R. Rao
  - (C) Heinrich Rohrer
  - (D) P. C. Ray
5. Who is the father of Indian nanotechnology?
  - (A) Vijay Rupani
  - (B) C.N.R. Rao
  - (C) P. C. Ray
  - (D) None of these
6. Which of the following is an active factor of soil formation?
  - (A) Parent material
  - (B) Climate
  - (C) Time
  - (D) Relief
7. The process of accumulation of materials in B horizons is called
  - (A) Eluviation
  - (B) Carbonation
  - (C) Illuviation
  - (D) Oxidation
8. The size of silt particles in ISSS system is
  - (A) 2 mm to 0.2 mm
  - (B) 0.2 to 0.02 mm
  - (C) 0.02 to 0.002 mm
  - (D) < 0.002 mm

9. The crystal units of montmorillonite are held together by

- (A) O-H linkage
- (B) O-O linkage
- (C) H-Bonding
- (D) Covalent bonding

10. Which of the following elements has highest concentration in earth's crust?

- (A) Silicon
- (B) Iron
- (C) Magnesium
- (D) Calcium

11. Marble contains high quantity of \_\_\_\_\_

- (A)  $MgCO_3$
- (B)  $CaCO_3$
- (C)  $Na_2CO_3$
- (D)  $K_2CO_3$

12. Sticking of two different nature of particles is called

- (A) Flocculation
- (B) Cohesion
- (C) Deflocculating
- (D) Adhesion

13. Nitrification is a process of

- (A) Biological reduction
- (B) Biological oxidation
- (C) Biological carbonation
- (D) Biological  $N_2$ -fixation

14. Which of the following soil orders is found in Indo-gangetic plain?

- (A) Mollisol
- (B) Vertisol
- (C) Gellisol
- (D) Inceptisol

15. The maximum water holding capacity occurs at pF value of

- (A) 1.0
- (B) 3.0
- (C) 6.0
- (D) 7.0

16. Mycorrhiza is an association of

- (A) Bacteria and legumes
- (B) BGA and *Azolla*
- (C) Fungi and Algae
- (D) Fungi and plant root

17. Medium range of available phosphorus (kg/ha) in soil is :

(A)  $< 10$   
(B) 10-20  
(C) 20-50  
(D)  $> 50$

18. Micronutrient which availability is more in alkaline condition :

(A) Fe  
(B) Zn  
(C) Mn  
(D) Mo

19. Plants absorb which form of phosphate ion?

(A)  $\text{H}_2\text{PO}_4^-$   
(B)  $\text{HPO}_4^{2-}$   
(C)  $\text{HPO}_4^{2-}$  and  $\text{H}_2\text{PO}_4^-$   
(D)  $\text{PO}_4^{3-}$

20. For accurate pH measurement, which of the following is often used?

(A) Pocket pH meter  
(B) Color chart  
(C) pH meter  
(D) Dye solution

21. Deficiency of nitrogen first appears on:

(A) Younger leaves  
(B) Older lower leaves  
(C) Middle leaves  
(D) All of these

22. Magnesium is predominantly found in

(A) Mitochondria  
(B) Nucleus  
(C) Cell wall  
(D) Chlorophyll

23. The Law of Minimum was given by:

(A) Mitcherlich  
(B) Spillman  
(C) J. V. Liebig  
(D) Thomas Way

24. Which fertilizer is physiologically neutral?

(A) Urea  
(B) Ammonium sulphate  
(C) Ammonium nitrate  
(D) Calcium ammonium nitrate

25. Who discovered the control of Khaira disease of rice?

(A) Dr. America Singh  
(B) Dr. Y. L. Nene  
(C) Dr. P. K. Chakraberty  
(D) Dr. M. S. Swaminathan

26. pH of calcareous soil is:

(A)  $< 7.0$   
(B)  $< 8.5$   
(C)  $> 10.0$   
(D)  $> 12.0$

27. The major cation causing flocculating of soil is

(A)  $\text{Na}^+$   
(B)  $\text{K}^+$   
(C)  $\text{Ca}^{++}$   
(D)  $\text{Mg}^{++}$

28. Which of the following group of micro organism shows highest influence on soil aggregation?

(A) Gum producing bacteria  
(B) Fungi  
(C) Streptomyces  
(D) Yeast

29. Neutralizing value of which of the following liming material is highest?

(A)  $\text{CaCO}_3$   
(B)  $\text{CaO}$   
(C)  $\text{CaMg}(\text{CO}_3)_2$   
(D)  $\text{CaSiO}_2$

30. Acid sulphate soils are formed due to:

(A) Reduction of sulphate  
(B) Oxidation of sulphide  
(C) Evolution of  $\text{H}_2\text{S}$   
(D) Use of ammonium sulphate fertilizers

31. Exchangeable sodium percentage of alkali soils is

(A)  $< 15$   
(B)  $> 8$   
(C)  $> 15$   
(D)  $< 10$

32. Submergence of alkaline soil tends to:

(A) Increase its pH  
(B) Decrease its pH of  
(C) Decrease then increase its pH  
(D) No any effect

33. Splash erosion is related to:

- (A) Wind velocity
- (B) Slops steepness
- (C) Rainfall intensity
- (D) Sheet erosion

34. Saline and alkali soils are also called as:

- (A) Halomorphic soil
- (B) Hydromorphic soil
- (C) Chernozem soil
- (D) Calcimorphic soil

35. Gypsum is used for the reclamation of:

- (A) Acid soil
- (B) Saline soil
- (C) Sodic soil
- (D) Alluvial soil

36. Identify the abiotic factor which results in storage loss of seed.

- (A) Bacteria
- (B) Rodents
- (C) Moisture
- (D) Mites

37. In which year Seed Act was enacted?

- (A) 1960
- (B) 1963
- (C) 1966
- (D) 1969

38. Among the following which chemical is fumigant being used during the storage of seed?

- (A) DDT
- (B) Formaline
- (C) Methyl Bromide
- (D) None of these

39. Which category of seed is not produced in India?

- (A) Breeder seed
- (B) Certified seed
- (C) Registered seed
- (D) Foundation seed

40. What should be percent genetic purity of foundation seed?

- (A) 98
- (B) 99
- (C) 99.5
- (D) 100

41. What colour of tag is issued by certified seed producing agency?

- (A) White
- (B) Blue
- (C) Golden
- (D) No colour tag

42. Wheat and paddy come under what class of seed?

- (A) Microbiotic seeds
- (B) Mesobiotic seeds
- (C) Macrobiotic seeds
- (D) None of these

43. The universally accepted DNA replication model is

- (A) Semi-conservative
- (B) Conservative
- (C) Dispersive
- (D) None of the above

44. Sudden heritable change in the phenotype of an individual is termed as

- (A) Deletion
- (B) Mutation
- (C) Transcription
- (D) Jumping genes

45. Crossing of  $F_1$  with homozygous recessive parent is called

- (A) Pure Line
- (B) Back-Cross
- (C) Test-Cross
- (D) Inbred Line

46. Transmission of characters from parents to offspring through cytoplasmic factors is called

- (A) Linkage
- (B) Mutation
- (C) Crosssing Over
- (D) Cytoplasmic Inheritance

47. Tendency of genes to be inherited in groups is termed as

- (A) Linkage
- (B) Crossing-over
- (C) Epistasis
- (D) Gene Interaction

48. Manifold effect of a gene is known as

- (A) Maternal Effect
- (B) Pleiotropic Effect
- (C) Co-dominance
- (D) Environmental effect

49. "Law of homologous series of variation" was given by

- (A) N.I. Vavilov
- (B) Gregor Johann Mendel
- (C) R.A. Fisher
- (D) H.G. Khurana

50. Maturation of anthers before stigma is referred to as

- (A) Protogyny
- (B) Protandry
- (C) Andromonoceous
- (D) Gynodioceous

51. Male Sterility promotes

- (A) Cleistogamy
- (B) Self-Fertilization
- (C) Cross-Fertilization
- (D) Autogamy

52. Progeny of single homozygous self pollinated crop is

- (A) Pure-Line
- (B) Inbred Line
- (C) Multiline
- (D) All of the above

53. Desirable oligogenic trait can be transferred into the commercial existing variety lacking in it by

- (A) Pure-line selection
- (B) Mass selection method
- (C) Back-cross method
- (D) Bulk method

54. How many net gain of ATP in glycolysis of one molecule of glucose?

- (A) 2
- (B) 4
- (C) 6
- (D) 8

55. Kranz anatomy is found in:

- (A) Wheat
- (B) Soybean
- (C) Cowpea
- (D) Sugarcane

56. Photosynthesis occurs in:

- (A) Thylakoid
- (B) Matrix
- (C) Chromoplast
- (D) Leucoplast

57. Deficiency of which of the following disturbs the vision capacity?

(A) Thiamin  
(B) Retinol  
(C) Ascorbic acid  
(D) Tocoferol

58. Which one of the following hormones causes leaf senescence and aging?

(A) GA  
(B) IAA  
(C) BA  
(D) ABA

59. Tryptophane is precursor to synthesis of

(A) IAA  
(B) NAA  
(C) MH  
(D) Ethylene

60. Hydrolysis of fat is catalysed by:

(A) Hydrolase  
(B) Catalase  
(C) Amylase  
(D) Lipase

61. Nationalization of bank was initiated in

(A) 1972  
(B) 1969  
(C) 1992  
(D) 2004

62. Source-> Transmitter-> Signal-> Receiver-> Destination is which method of communication?

(A) Berlo model  
(B) Fano model  
(C) Lasswell model  
(D) Shannon and weaver model

63. Father of extension education in India was?

(A) K. N. Singh  
(B) James Stuart  
(C) J. P. Leagans  
(D) Seaman A. Knapp

64. National Bank for Agriculture and Rural Development is an apex development finance institution?

(A) Owned by State Govt. + Central Govt. of India  
(B) Fully owned by Central Government of India  
(C) State Govt. + Central Govt. + Private banks  
(D) Fully owned by State Govt.

65. Which of the following is a farm agency?

- (A) FCI
- (B) Agro service center
- (C) IFFCO
- (D) Shree Ram Fertilizer

66. Result Demonstration is

- (A) Composite type demonstration or both type
- (B) Short type demonstration
- (C) Long type demonstration
- (D) None of the above

67. Extension is :-

- (A) Two way channel
- (B) Education for all village people
- (C) Teaching through learning by doing and seeing is believing
- (D) All of the above

68. It is more useful for making people aware of the new agricultural technology quickly?

- (A) Mass contact method
- (B) Group contact method
- (C) Individual contact method
- (D) All of these

69. Who was the father of cooperative movement in India?

- (A) F. Nicholson
- (B) Smith
- (C) Marshall
- (D) Robins

70. In "Perfectly inelastic" demand value of  $E_p$  :-

- (A)  $E_p = 0$
- (B)  $E_p = 1$
- (C)  $E_p = \infty$
- (D)  $E_p > 0$

71. Land taxes, annually hired labours come under :

- (A) Variable cost
- (B) Fixed cost
- (C) Marginal cost
- (D) Implicit cost

72. The Agricultural Produce (Grading and Marking) Act; was introduced in

- (A) 1993
- (B) 1945
- (C) 1937
- (D) 1990

73. For which graph “Price elasticity” line will be parallel to x-axis:-

- (A) Perfectly elastic
- (B) Perfectly inelastic
- (C) Unit elastic
- (D) None of these

74. When RBI was established?

- (A) 1 April, 1935
- (B) 5 May, 1990
- (C) 17 July, 1945
- (D) 1 December, 1955

75. Who is considered as father of Indian Statistics?

- (A) P. C. Mahalanobis
- (B) Karl Pearson
- (C) A.L. Bowley
- (D) Boddington

76. The variance is the square root of

- (A) Mean deviation
- (B) Standard deviation
- (C) Range
- (D) Correlation

77. Type 2<sup>nd</sup> error is denoted by?

- (A) Beta
- (B) Gamma
- (C) Infinity
- (D) Alfa

78. Indian Agricultural Statistical Research Institute is established at

- (A) Lucknow
- (B) Jaipur
- (C) New Delhi
- (D) Bombay

79. The hypothesis of no difference is known as

- (A) Simple hypothesis
- (B) Null hypothesis
- (C) Composite hypothesis
- (D) Alternative hypothesis

80. First level of Maslow's hierarchy pyramid is

- (A) Safety
- (B) Physiological
- (C) SelfActualization
- (D) Belongingness

81. Which of the following is NOT a function of management?

- (A) Organizing
- (B) Planning
- (C) Verification
- (D) Directing

82. A cognitive process resulting in the selection of a course of action among several alternative scenarios is called as

- (A) Decision Making
- (B) Planning
- (C) Proofing
- (D) Recording

83. The process of imparting knowledge in an individual is called

- (A) Supervision
- (B) Training
- (C) Directing
- (D) Staffing

84. F.W. Taylor is associated with

- (A) Scientific management
- (B) Future management
- (C) Modern management
- (D) Principles of management

85. Who recommends the Minimum Support Price?

- (A) Ministry of Agriculture and Farmer
- (B) NABARD
- (C) Niti Aayog
- (D) Commission for Agricultural Cost and Prices

86. NABARD was set up in year:

- (A) 1982
- (B) 1965
- (C) 1998
- (D) 2015

87. Which of the following is the primary sector of the Indian economy?

- (A) Information and Technology
- (B) Banking
- (C) Agriculture
- (D) Insurance

88. If a nation gains from trade, its consumption point is:

- (A) An its production possibility frontier
- (B) Inside its production possibility frontier
- (C) Above its production possibility frontier
- (D) Any of the above

89. If the cost of transporting a good between two countries exceeds the pre-trade price difference for the good between the two countries, then trade in that goods is:

(A) Possible  
(B) Impossible  
(C) Reversed  
(D) Can not say anything

90. The commodity in which a country has the least absolute disadvantage represents its area of:

(A) Comparative advantage  
(B) Comparative disadvantage  
(C) Absolute advantage  
(D) None of the above

91. The word Agriculture is derived from

(A) Arabi  
(B) Greek  
(C) Latin  
(D) English

92. Who started agriculture first?

(A) Egyptians  
(B) Chinese  
(C) Indians  
(D) Russians

93. The term chalcolithic is applied to communities using implements with-

(A) Bronze only  
(B) Copper only  
(C) Iron only  
(D) Bronze and Copper both

94. “Krishi Nirawahi Chatur Kisana” Above line indicating towards weeding is mentioned in:

(A) Shrimad Bhagvad Geeta  
(B) Ramayan  
(C) Ramcharitmanas  
(D) Guru Granth Sahib

95. Material cost including wages of skilled and semi-skilled workers under MGNREGS is borne by Central and by State Government in the ratio of:-

(A) 50:50  
(B) 90:10  
(C) 75:25  
(D) 25:75

96. What basic need does IAY fulfill?

(A) Water  
(B) Housing  
(C) Food  
(D) Fertilizer

97. Pradhan Mantri Krishi Sinchay Yojana was launched on:

(A) 1<sup>st</sup> May 2014  
(B) 17<sup>th</sup> July 2019  
(C) 1<sup>st</sup> July 2015  
(D) 5<sup>th</sup> January 2014

98. Pension given under PM Kisan Maandhan Yojana:

(A) Rs. 2,000  
(B) Rs. 3,000  
(C) Rs. 5,000  
(D) Rs. 6,000

99. What is prime function of ATMA?

(A) Research and development  
(B) Selling technology  
(C) Helping technology companies  
(D) Dissemination of technology

100. Aim of E-pashuhaar Portal :-

(A) To provide animal insurance  
(B) Improve milk productivity  
(C) To connect farmers and veterinary doctor for animal health issues  
(D) To connect breeders and farmers regarding availability of bovine germplasm

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