

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

Test Booklet Series

T. B. C. : ASC – 2/20

A

TEST BOOKLET

(ASSISTANT SOIL CONSERVATION OFFICER)

22513

PAPER – II

Sl. No.

Time Allowed : 1½ Hours

Maximum Marks : 100

: INSTRUCTIONS TO CANDIDATES :

1. IMMEDIATELY AFTER THE 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 THE 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 alongside. **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 (answers) **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 will be no negative marking for wrong response (answer).**
8. Before you proceed to mark (darken) in the Answer Sheet the responses (answers) to various items (questions) in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per the instructions sent to you with your **Admission Certificate**.
9. After you have completed filling in all your responses (answers) 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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SEAL

1. Aman rice is sown in the month of :
 - (A) April – May
 - (B) June – July
 - (C) November – December
 - (D) May – June
2. A short duration crop is sown in between the two rows of main crops is termed as :
 - (A) Cash Crop
 - (B) Catch Crop
 - (C) Companion Crop
 - (D) Ephemeral
3. Crop production and Animal Husbandry collectively is known as :
 - (A) Mixed Cropping
 - (B) Relay Cropping
 - (C) Mixed Farming
 - (D) None of these
4. How much area of nursery is needed for sowing of paddy crop in one hectare ?
 - (A) 1/5 of total area
 - (B) 1/10 of total area
 - (C) 1/8 of total area
 - (D) 1/16 of total area
5. Ammonium Sulphate Fertilizer is preferred for nitrogen application in ground nut because it also provides :
 - (A) Calcium
 - (B) Magnesium
 - (C) Sulphur
 - (D) Boron
6. Nitrogen is taken up by the plants in the form of :
 - (A) Chloride
 - (B) Oxide
 - (C) Nitrate
 - (D) Sulphate
7. The deficiency symptoms on lower leaves are seen due to :
 - (A) Nitrogen
 - (B) Phosphorus
 - (C) Potassium
 - (D) Zinc
8. Which one of the following nutrient is more required for berseem crop ?
 - (A) Nitrogen
 - (B) Phosphorus
 - (C) Potash
 - (D) Boron

9. Acidic Soil can be reclaimed by the application of :
- (A) CaCO_3
 - (B) H_2SO_4
 - (C) $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
 - (D) HNO_3
10. Addition of following material makes it possible to take good crop in sodic soils :
- (A) FYM
 - (B) Green Manuring
 - (C) Gypsum
 - (D) Vermicompost
11. Ammonia is lost through volatilization in significant amount from :
- (A) Alkaline Soils
 - (B) Acidic Soils
 - (C) Saline Soils
 - (D) Sodic Soils
12. An aerobic environmental condition of paddy soil is responsible for gaseous losses of fertilizer nitrogen :
- (A) Ammonification
 - (B) Nitrification
 - (C) Denitrification
 - (D) Volatilization
13. Application of nitrogen in pulses at the time of sowing is known as :
- (A) Additional dose
 - (B) Starter dose
 - (C) Synergistic dose
 - (D) Basic dose
14. How much $\text{kg N}_2 / \text{ha} / \text{year}$ can be fixed by Azolla ?
- (A) 80 to 100
 - (B) 30 to 40
 - (C) 10 to 15
 - (D) 100 to 120
15. What is Crop Rotation ?
- (A) Growing more than one crop at a time
 - (B) Growing of crops one after another to maintain soil fertility
 - (C) Growing of an associate crop in between the rows of two main crop
 - (D) Growing of crops together in strips

16. Which is the most important source of Irrigation in India ?
- (A) Canal
 - (B) Pond
 - (C) Tubewell
 - (D) Charsa
17. When only two irrigations are available, the wheat crop should be irrigated at ?
- (A) CRI and Tillering stage
 - (B) CRI and Flowering stage
 - (C) CRI and Milking stage
 - (D) CRI and late joining stage
18. Which crop is considered as King of the fodder crop ?
- (A) Lucern
 - (B) Berseem
 - (C) Oat
 - (D) Sudan grass
19. Which of the following operation is not a primary practice ?
- (A) Ploughing
 - (B) Planking
 - (C) Harrowing
 - (D) Weeding
20. Phalaris minor weed is associated with :
- (A) Gram Crop
 - (B) Wheat Crop
 - (C) Paddy Crop
 - (D) Soybean Crop
21. Basal application of fertilizers means :
- (A) Application of fertilizers at the time of sowing
 - (B) Application of fertilizers in two split doses
 - (C) Application of fertilizers in Standing Crop
 - (D) Application of fertilizers many times
22. Bio fertilizer is a :
- (A) Mixture of organic matter and micro organisms
 - (B) Mixture of inorganic fertilizers and micro organisms
 - (C) Culture having the desired strain of micro organisms
 - (D) Decomposed organic matter enriched with bacteria

23. Biological Nitrogen fixation is :
- (A) Aerobic and anaerobic
 - (B) Denitrification
 - (C) Leaching
 - (D) Removal
24. Capillary movement of water in the soil is complemented by :
- (A) Stem Elongation
 - (B) Root Extension
 - (C) Leaf Orientation
 - (D) Fruit formation
25. Topping in Tobacco Crop means a process of :
- (A) Removal of buds in the axil of leaves
 - (B) Removal of leaves
 - (C) Removal of terminal buds
 - (D) Burning of leaves
26. Diameter of breast height (dbh) of tree is measured at :
- (A) $4\frac{1}{2}$ feet above ground level
 - (B) Merchantable height of the tree
 - (C) 1.37 meter from the ground level
 - (D) Just below the canopy of the tree
27. Tree species which give fuel, fodder, food, fruit and fiber are called :
- (A) Fodder Trees
 - (B) Multipurpose Trees
 - (C) Agroforestry Trees
 - (D) Leguminous Trees
28. A tree which completely becomes leafless in rainy season is :
- (A) *Faidherbia albida*
 - (B) *Prosopis juliflora*
 - (C) *Leucaena leucocephala*
 - (D) *Acacia nilotica*
29. Which is the scented portion in Sandal wood ?
- (A) Flower
 - (B) Seed
 - (C) Soft Wood
 - (D) Heart Wood
30. Tree age can be measured by :
- (A) Altimeter
 - (B) Increment borer
 - (C) Hygrometer
 - (D) Relascope

31. Head Quarter of ICRAF is located at :
- (A) Dehradun
(B) Jhansi
(C) Nairobi
(D) Europe
32. Global Warming is due to :
- (A) Deforestation
(B) Mixed farming
(C) Crop diversity
(D) Agroforestry
33. Which of the following tree species is not nitrogen fixing ?
- (A) *Acacia nilotica*
(B) *Dalbergia Sissoo*
(C) *Azadirachta Indica*
(D) *Leucaena Leucocephala*
34. Sal tree bears flower :
- (A) Every year
(B) Once in two years
(C) Once in five years
(D) None of these
35. The criteria of essentiality of nutrients is given by :
- (A) Amon
(B) Tandon
(C) Rattan
(D) Dargan
36. In Alley Cropping, the row to row spacing varies from :
- (A) 1 – 4 m
(B) 4 – 8 m
(C) 2 – 4 m
(D) 4 – 6 m
37. Home garden is found extensively in :
- (A) Low rainfall areas
(B) Medium rainfall areas
(C) High rainfall areas
(D) Arid areas
38. The mature trees removed in one operation is called :
- (A) Shelter Wood System
(B) Clear Felling System
(C) Improvement Felling
(D) Coppice with Reserve System
39. Katha is extracted from which part of Khair trees ?
- (A) Fruit
(B) Heart Wood
(C) Seed
(D) Roots

40. For cooking 1 kg of food, how much quantity of fuel wood is required ?
- (A) 1 kg
(B) 1.2 kg
(C) 1.5 kg
(D) 1.7 kg
41. An operation is carried out for the benefit of a forest crop at any stage between seedling to maturity, is called :
- (A) Cultural Operation
(B) Plant Protection
(C) Regeneration
(D) Tending Operations
42. Which is the most important physical characteristics of wood ?
- (A) Strength
(B) Grain
(C) Specific gravity
(D) Elasticity
43. First Inspector General of Forest of India was :
- (A) K. F. S. King
(B) H. G. Champion
(C) R. S. Troup
(D) Dietrich Brandis
44. World Forestry Day is celebrated on date :
- (A) 5th June
(B) 15th June
(C) 22nd March
(D) 25th September
45. Growing of trees with the crop is called :
- (A) Agri-silviculture-System
(B) Agri-horticulture System
(C) Agro-silvopastoral System
(D) Agro-horti-silviculture System
46. Silvopastoral System means :
- (A) Growing of trees with pasture
(B) Growing of trees with crop
(C) Growing of grasses with fruit trees
(D) Growing of pasture + crop
47. The ideal potting mixer used in filling polybags for raising seedlings contains ratio of Soil : Sand : FYM :
- (A) 1 : 3 : 1
(B) 1 : 2 : 1
(C) 1 : 1 : 1
(D) 2 : 1 : 1

48. Which of the following is an example of Silvopastoral System ?
- (A) *Hardwickia binata* + *Cenchrus Ciliaris* + Goat
- (B) *Eurhlica officinalis* + Cowpea
- (C) *Gmelina arborea* + *Dicanthium annulatum*
- (D) *Acaica nilotica* + Paddy
49. Raising of trees on bunds or farm boundaries is known as :
- (A) Social Forestry
- (B) Community Forestry
- (C) Farm Forestry
- (D) Extension Forestry
50. Central Agroforestry Research Institute (CAFRI) is located at :
- (A) Hyderabad
- (B) New Delhi
- (C) Jhansi
- (D) Solan
51. The putting of plant propagules in the field to grow as crop plants is called :
- (A) Sowing
- (B) Gap filling
- (C) Planting
- (D) Transplanting
52. Which of the following method of sowing gives rapid and uniform germination with good seedling vigour ?
- (A) Broadcasting
- (B) Dibbling
- (C) Drilling
- (D) Line sowing
53. For the planting of turmeric crop, which of the following vegetative material is used ?
- (A) Tubers
- (B) Bunches
- (C) Setts
- (D) Rhizomes
54. Maximum rainfall occurs on the :
- (A) Leeward Side
- (B) East-West Direction
- (C) North-South Direction
- (D) Windward Side
55. The optimum range of temperature required for the grain formation in Wheat crop is :
- (A) 8 to 10° C
- (B) 10 to 15° C
- (C) 12 to 26° C
- (D) 5 to 10° C

56. Which of the statement is not related to deep ploughing ?
- (A) Favours break up of clods
 - (B) Kills the weeds
 - (C) Increases soil erosion
 - (D) Incorporates organic residues
57. Which of the following implement is not used for ploughing ?
- (A) Country Plough
 - (B) Mould Board Plough
 - (C) Ridge Plough
 - (D) Disc Plough
58. Find the odd one out – In Sigmoid Growth Curve, there are three well marked regions :
- (A) Lag phase
 - (B) Economic phase
 - (C) Log phase
 - (D) Steady state phase
59. Which one of the following operation is not helpful in controlling floods ?
- (A) Construction of dams
 - (B) Afforestation
 - (C) Provision of adequate drainage
 - (D) Deforestation
60. Which of the following are not related to greenhouse gases ?
- (A) Methane
 - (B) Carbondioxide
 - (C) Chlorofluoro carbons
 - (D) NO_3
61. Absorption of which of the following gas reduces the level of chlorophyll pigments in cell and affects photosynthesis ?
- (A) CO_2
 - (B) SO_2
 - (C) NO_2
 - (D) NH_3
62. Quantity, Quality, Intensity and Duration are the important parameters of :
- (A) Soil Temperature
 - (B) Rain Fall
 - (C) Solar Radiation
 - (D) Soil Moisture
63. The science of identification and classification of earth surface features using electromagnetic radiation as a medium of interaction refers to :
- (A) Weather Forecasting
 - (B) Remote Sensing
 - (C) Geographic Information System
 - (D) Global Positioning System

64. The process of destruction of soil aggregates by mechanical force in soils with a moisture content exceeding the moisture equivalent :
- Puddling
 - Ploughing
 - Mulching
 - Intercultivating
65. In urea, the nitrogen is available in :
- Nitrate form
 - Sulphate form
 - Amide form
 - Ammonium form
66. The maximum Anion Exchange Capacity is found in :
- Kaolinite mineral
 - Montmorillonite mineral
 - Granite mineral
 - Basalt mineral
67. Castor belongs to the family :
- Leguminoceae
 - Euphorbiaceae
 - Cruciferae
 - Compositae
68. The removal of wings from the seeds is called :
- Deheading
 - Dewinging
 - Washing
 - Cleaning
69. The removal of seeds in case of fleshy fruits is called :
- Depulping
 - Extraction
 - Soaking
 - Winnowing
70. The decomposition of litter (Leafy matter) is faster in case of :
- Narrow leaves
 - Pointed leaves
 - Broad leaves
 - Wax-coated leaves
71. Which of the statement is not related to deep ploughing ?
- Favors break-up of clots
 - Kills the weeds
 - Increases soil erosion
 - Incorporates organic residues
72. The natural geo-hydrological unit whereby all streams are draining into a common point is called :
- Water conservation
 - Water shed management
 - Soil conservation
 - Dug wells

73. The science which deals with water, concerning with distribution, physical and chemical reaction and in relation to the life of the earth :
- (A) Precipitation
 - (B) Flooding
 - (C) Hydrology
 - (D) Agrostology
74. The removal of thin uniform layer of soil from the land surface by the action of run-off water is called :
- (A) Splash erosion
 - (B) Sheet erosion
 - (C) Rill erosion
 - (D) Gully erosion
75. The making of small depressions of about 10-15 cm depth around the vegetation before sowing of crop is called :
- (A) Bunding
 - (B) Bench terracing
 - (C) Basin listing
 - (D) Graded buns
76. The weeds which normally start and complete their life-cycle on the land is called :
- (A) Alien weeds
 - (B) Obligate weeds
 - (C) Parasitic weeds
 - (D) Terrestrial weeds
77. A weeds that has become an integral part of a crop-ecosystem is called :
- (A) Facultative weeds
 - (B) Satellite weeds
 - (C) Associated weeds
 - (D) Noxious weeds
78. The direct or indirect harmful effect by one plant on another through the production of inhibitory substances is called :
- (A) Allelopathy
 - (B) Competition
 - (C) Stimulation
 - (D) Interaction
79. The living organisms (bio-agent) used to limit the infestation of Parthenium Hysterophorus weed is :
- (A) Cactoblastic Cactorum
 - (B) Crylophagous Salvinia
 - (C) Zygomagrama bicolorata
 - (D) Delias hypareta

80. The process by which a herbicide passes from one system into another system is called :
- (A) Adsorption
 - (B) Formulation
 - (C) Incorporation
 - (D) Absorption
81. The Lucknow-49 is a variety of :
- (A) Mango
 - (B) Guava
 - (C) Amla
 - (D) Ber
82. Growing of two or more crops on the same field per year, where the succeeding crop is planted after the preceding crop has been harvested is called :
- (A) Multiple cropping
 - (B) Relay cropping
 - (C) Sequential cropping
 - (D) Ratoon cropping
83. The quantity of water required by a crop in a given period of time for their normal growth under field condition is called :
- (A) Water requirement
 - (B) Irrigation requirement
 - (C) Consumptive use of water
 - (D) Irrigation frequency
84. When fertilizers are applied close to the seed or plant which is adopted when relatively small quantity of fertilizer has to be applied for widely spaced crop is called :
- (A) Deep placement
 - (B) Localized placement
 - (C) Drill placement
 - (D) Band placement
85. When the fertilizer solutions of low concentrations prepared for soaking seeds or dipping roots of seedlings for early establishment is called :
- (A) Foliar application
 - (B) Soil application
 - (C) Starter solutions
 - (D) Fertigation
86. The moisture of the soil at which plants can no longer obtain enough moisture to meet the transpiration requirement and water is held by soil so tightly as thin film around soil particles is called :
- (A) Field Capacity
 - (B) Available moisture
 - (C) Permanent Wilting Point
 - (D) Water-holding capacity

87. The downward movement of water through saturated soil when water is under pressure and tension is less than $\frac{1}{2}$ atmosphere is called :
- (A) Percolation
(B) Water intake
(C) Permeability
(D) Seepage
88. The scientist who has given the concept of Law of Minimum :
- (A) Mitscherlich (1909)
(B) Justus Von Liebig (1840)
(C) Blackman (1005)
(D) Willcox (1942)
89. Plant that grows on extremely dry soil are classified under :
- (A) Thalophytes
(B) Hydrophytes
(C) Xerophytes
(D) Hydroponics
90. The C : N ratio of humus is :
- (A) 20 : 1
(B) 100 : 1
(C) 10 : 1
(D) 400 : 1
91. Cutting of green branches and leaves of a tree for feeding the cattle is known as :
- (A) Lopping
(B) Pruning
(C) Pollarding
(D) Thinning
92. In the pellet method of sowing, the homogeneous paste is prepared in the ratio :
- (A) 3 : 1 : 1 : 1
(B) 1 : 2 : 1 : 3
(C) 2 : 1 : 1 : 2
(D) 4 : 1 : 2 : 1
93. The optimum depth of sowing of grasses in the rangeland should be :
- (A) 3 to 5 cm
(B) 5 to 7 cm
(C) 0.5 to 1 cm
(D) 2 to 4 cm
94. Which method is used for the entire plant removal of scattered scrubs or tree seedlings of small diameter ?
- (A) Grubbing
(B) Girdling
(C) Chopping
(D) Mowing

95. The reasons of enormous increase in the livestock population of the country is :
- (A) Availability of green fodder
 - (B) Social attitude of people
 - (C) Multiple uses of animals
 - (D) Large number of family members
96. The characteristics of tree species for shelter belt is :
- (A) Nitrogen fixing
 - (B) Fast growing
 - (C) Profused branching
 - (D) Deep rooted
97. Mulching is useful for :
- (A) Conserving moisture
 - (B) Reducing crop growth
 - (C) Nutrient depletion
 - (D) High evaporation
98. The growth of seedling destroyed by animals is due to :
- (A) Browsing
 - (B) Grazing
 - (C) Trampling
 - (D) Up-rooting
99. Which is not the component of agroforestry ?
- (A) Land
 - (B) Animal
 - (C) Tree
 - (D) Water
100. The tree species suitable for bio-drainage in the water logged areas :
- (A) Eucalyptus
 - (B) Ailanthus excelsa
 - (C) Albizia procera
 - (D) Gmelina arborea

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SPACE FOR ROUGH WORK

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