

AGRONOMY

1. The percentage of photosynthates contributed by awns to developing grains is about:
(A) 3% (B) 20%
(C) 10% (D) 30%
2. The notable contribution of Prof. Yuan Longping is:
(A) Golden rice (B) Hybrid rice
(C) Hybrid wheat (D) Hybrid maize
3. The waxy corn belongs to the subspecies:
(A) indurata (B) amylacea
(C) everta (D) ceratina
4. A solution of 0.5% concentration refers to:
(A) 50 ppm (B) 500 ppm
(C) 5000 ppm (D) 50000 ppm
5. Bast fibre is extracted from:
(A) Seed (B) Leaves
(C) Stem (D) Root
6. The index used to determine the degree of diversity in a given community type:
(A) Simpson's index (B) Leaf area index
(C) Cropping index (D) Land utilization index
7. The clouds accompanied by lightning and thunderstorms are:
(A) Nimbostratus (B) Altocumulus
(C) Cumulonimbus (D) Cirrocumulus
8. The content of Zn in Zinc Sulphate is:
(A) 21% (B) 52%
(C) 10% (D) 33%
9. In India, the area under *rabi* pulses is generally about:
(A) 55% (B) 35%
(C) 45% (D) 25%

10. The golden fiber is:
(A) Cotton (B) Jute
(C) Mesta (D) Hemp
11. The climatic classification modified by ICRISAT is:
(A) Koppen's (B) Troll's
(C) Trewartha's (D) Hargreave's
12. The quantity of butachlor (50%EC) required for rice @ 1.5 kg a.i. per ha is:
(A) 3 litres (B) 1.5 litres
(C) 2.5 litres (D) 0.75 litre
13. The size of soil particles is determined by:
(A) Darcy's law (B) Stoke's law
(C) Fick's law (D) Bray's law
14. NPK content is highest in:
(A) Compost (B) Farmyard manure
(C) Vermicompost (D) Human excreta
15. The sea island cotton is:
(A) *G. hirsutum* (B) *G. arboreum*
(C) *G. herbaceum* (D) *G. barbadense*
16. Only $\frac{1}{3}^{\text{rd}}$ to $\frac{1}{2}$ of the total area is cultivated in:
(A) Zero tillage (B) Minimum tillage
(C) Strip tillage (D) Conventional tillage
17. Ekisthothermal climates are characterized by following type of vegetation:
(A) Dry climate (B) Tropical rainy
(C) Cold snowy forest (D) Snow
18. When the annual precipitation is less than the normal for prolonged period, the resultant drought is:
(A) Hydrological drought (B) Meteorological drought
(C) Atmospheric drought (D) Agricultural drought
19. The fertilizer additive used to enhance absorption of glyphosate herbicide is:
(A) Urea (B) Ammonium sulphate
(C) DAP (D) CAN
20. The harvest index of fodder crops is generally:
(A) Zero (B) 1.0
(C) 2.0 (D) 0.5

21. Soil moisture conservation measure suitable for hilly areas is:
 (A) Contour bunding (B) Graded bunding
 (C) Bench terracing (D) Border strips
22. The EC and ESP values respectively of saline soils are:
 (A) >4 & <15 (B) >4 & >15
 (C) <4 & <15 (D) <4 & >15
23. Epsom salt is:
 (A) Lime stone (B) Magnesium nitrate
 (C) Magnesium sulphate (D) Potassium magnesium sulphate
24. An example of partial root parasite:
 (A) Orobanche (B) *Singa*
 (C) Loranthus (D) *Cuscuta*
25. The burning quality of tobacco is adversely affected by:
 (A) Potassium (B) Magnesium
 (C) Chloride (D) Phosphorus
26. The t-test is employed under following condition:
 (A) Table F $>$ cal F (B) Table F $<$ cal F
 (C) Table F = cal F (D) Table F $\geq$ cal F
27. Sub-soil packer was suggested by:
 (A) Kanitkar (B) Campbell
 (C) Widtsae (D) Tamhane
28. *Salvinia molesta* is a:
 (A) Terrestrial weed (B) Industrial weed
 (C) Aquatic weed (D) Forest weed
29. Hygroscopic water is held with a tension of:
 (A) 31 atm. (B) 3 atm.
 (C) 15 atm. (D) Zero atm.
30. This chapter in a research report gives details of work done in the past:
 (A) Materials & methods (B) Discussion
 (C) Review of literature (D) Introduction
31. Wavelength of light absorbed to maximum extent for photosynthesis is:
 (A) Green light (B) Yellow light
 (C) Blue light (D) Red light

32. The word tillage is derived from:
(A) Anglo-saxon (B) Latin
(C) Greek (D) French
33. The percentage data obtained from protein analysis can be subjected to:
(A) Logarithmic transformation (B) Arc-sine transformation
(C) Square root transformation (D) Normal analysis
34. pF is the logarithm of the soil moisture tension expressed in:
(A) cm height of water column (B) m height of water column
(C) m width of water column (D) cm width of water column
35. Cattail millet is:
(A) Pearl millet (B) Little millet
(C) Proso millet (D) Finger millet
36. Smooth leaf surface without any hairs refers to:
(A) Pubescent (B) Glaucous
(C) Glabrous (D) Villose
37. The cropping intensity for net cultivated area of 5 ha when cropped for 15 ha is:
(A) 3% (B) 300%
(C) 150% (D) 200%
38. The measurement of dispersion in the data includes computation of:
(A) Mean (B) Standard deviation
(C) Mode (D) Median
39. Boron containing mineral is:
(A) Chalcopyrite (B) Tourmaline
(C) Biotite (D) Sphalerite
40. The chemical used for seeding warm clouds:
(A) Silver iodide (B) Common salt
(C) Zinc oxide (D) Magnesium sulphate
41. The irrigation requirement (IR) is equal to:
(A) $WR - (ER + S)$ (B) $WR - (ER - S)$
(C) $WR + (ER - S)$ (D) $WR + (ER + S)$
42. Coefficient of variation is the percentage ratio between:
(A) SD and variance (B) Mean and variance
(C) SD and mean (D) Variance and mean

43. A wasteful process in C-3 plants is:
(A) Photosynthesis (B) Photolysis
(C) Photorespiration (D) Photo-oxidation
44. Under high rainfall situations following fertilizer is most effective:
(A) Urea (B) Ammonium sulphate
(C) Calcium Ammonium Nitrate (D) Anhydrous ammonia
45. Fibre length is measured by the instrument:
(A) Micronaire (B) Digital fibrograph
(C) Pressley tester (D) Odometer
46. The effective yoke length of a wooden plough is:
(A) $2L$ (B) $4b$
(C) $3b+d$ (D) $2b$
47. 'Hollow heart' nutrient disorder in groundnut is due to:
(A) Boron (B) Copper
(C) Calcium (D) Magnesium
48. Error degrees of freedom for 6 treatments with 4 replications in a RCBD is:
(A) 12 (B) 15
(C) 10 (D) 23
49. Aquatic weeds can be effectively controlled by:
(A) Herbigation (B) Burning and Flaming
(C) Dredging and Chaining (D) Cutting and Mowing
50. The first standard meteorological week begins on:
(A) 1st June (B) 31st December
(C) 1st January (D) 1st April
51. The percent nicotine content is high in:
(A) FCV tobacco (B) Burley tobacco
(C) Bidi tobacco (D) Chewing tobacco
52. Next Stage of Sheet erosion is:
(A) Ravine erosion (B) Splash erosion
(C) Gully erosion (D) Rill erosion
53. For successful control of water hyacinth, the following biocontrol can be used:
(A) *Neochetina* sp (B) *Bradyrhizobium* sp
(C) *Zygogramma* (D) *Cyrtobagous* sp

54. Broad Bed Furrow system of land management is recommended for:
 (A) Sandy soils (B) Vertisols
 (C) Red soils (D) Alluvial soils
55. The concept of Soil Management zone is associated with:
 (A) Organic agriculture (B) Conservation agriculture
 (C) Precision agriculture (D) Conventional agriculture
56. Piezometer is used to measure:
 (A) Hydraulic conductivity (B) Water potential
 (C) Water table (D) Soil moisture
57. The sphere which lies above stratosphere is:
 (A) Thermosphere (B) Ionosphere
 (C) Mesosphere (D) Exosphere
58. Following design is used when treatments require convenience in field operations:
 (A) Split plot (B) RCBD
 (C) Strip plot (D) Split-Split plot
59. The concept of 'Aggressivity' in intercropping was proposed by:
 (A) de Witt (B) McGilchrist
 (C) Donald (D) Watson D.J.
60. An agro-forestry system having components of crops+trees+pasture/animals
 (A) Agrisilviculture (B) Silvipasture
 (C) Agrisilvipasture (D) Agrisilvihorticulture
61. National Farmers' Day is observed on:
 (A) 23rd December (B) 23rd March
 (C) 16th October (D) 5th June
62. The diameter of USWB class A pan evaporimeter is:
 (A) 122 cm (B) 132 cm
 (C) 112 cm (D) 222 cm
63. Which of the following is related to asexual reproduction:
 (A) Allogamy (B) Amphimixis
 (C) Autogamy (D) Apomixis
64. The oil content of normal maize cultivars would be in the range:
 (A) 3-4% (B) 10-12%
 (C) 15-17% (D) 20-22%

76. The brick is burnt before its use for destroying the:
(A) Bulk density (B) Swelling & Shrinkage property
(C) Particle density (D) Porosity
77. The pH of 0.01 N NaOH theoretically would be:
(A) 14 (B) 12
(C) 6 (D) 2
78. What is true in the context of infestation of Bakanae disease in direct-seeded rice (DSR) and transplanted rice (TPR)?
(A) $DSR > TPR$ (B) $DSR = TPR$
(C) $DSR < TPR$ (D) None of these
79. Langbeinite in addition to K contains the following elements.
(A) P and S (B) Mg and Cl
(C) P and Mg (D) Mg and S
80. The general critical limit used for sulphur in Indian soil for classifying fertility classes is:
(A) 2 ppm (B) 5 ppm
(C) 10 ppm (D) 15 ppm
81. 'Pusa Rudhira' is a variety of
(A) Cauliflower (B) Raddish
(C) Carrot (D) Wheat
82. If urea is applied @ 200 kg/ha, the amount of urea needed for an area of 20 m² is:
(A) 0.4 kg (B) 0.45 kg
(C) 0.5 kg (D) 0.55 kg
83. Which country has the largest reserves of K?
(A) Canada (B) Germany
(C) USA (D) Russia
84. What percentage of the non-exchangeable K generally is the exchangeable K?
(A) <1 % (B) 1-2%
(C) 2-3% (D) 4-5%
85. In a situation where entire dry matter is the economic product, the response is:
(A) Parabolic (B) Reciprocal
(C) Quadratic (D) Asymptotic

65. The term 'flopping' is associated with:
(A) Wilting due to disease (B) Wilting due to high temp.
(C) Wilting due to waterlogging (D) Wilting due to excess nutrients
66. The seed rate (kg/ha) for soybean grown at 30 x 10 cm when 100 seed weight is 22.5g is:
(A) 67.5 kg (B) 85 kg
(C) 75 kg (D) 99 kg
67. The seed rate of tobacco is:
(A) 10 g m⁻² (B) 5 g m⁻²
(C) 50 g m⁻² (D) 0.5 g m⁻²
68. The average per ha consumption of pesticide in India is about:
(A) 550 g (B) 780 g
(C) 380 g (D) 900 g
69. The area, production and productivity of Jute Crop is high in:
(A) Bihar (B) Orissa
(C) West Bengal (D) Uttar Pradesh
70. Which of the following is not true for a puddled soil
(A) Ideal soil condition for paddy (B) Improved weed control
(C) Reduced deep percolation loss (D) Improved aeration
71. Imperial Agricultural Research Institute was started in
(A) New Delhi (B) Bihar
(C) Cuttack (D) West Bengal
72. Water hyacinth vegetatively multiplies through
(A) Runner (B) Stolon
(C) Offset (D) Suckers
73. Calcium in soil mostly moves through the process of:
(A) Diffusion (B) Mass flow
(C) Root interception (D) Osmosis
74. The "inductive approach" for pre-set yield target was developed by:
(A) Truog (B) Ramamoorthy
(C) Muralidharudu (D) Sairam
75. Which of the following is called "Green Gold"?
(A) Greengram (B) Sisal
(C) Bamboo (D) Jute

86. The common extract used in most soil-testing laboratories in India for estimation of calcium and magnesium is:
(A) Morgan's reagent (B) Hot water
(C) Mehlich's No.1 (D) Normal ammonium acetate
87. If 500 litres of 0.2% solution of urea is to be sprayed on one hectare of land, the amount of urea required for 5 hectares will be:
(A) 2.5 kg (B) 5 kg
(C) 10 kg (D) 15 kg
88. In a crop, water is applied at IW/CPE 1.4. If the initial irrigation water depth was 7.0 cm, the next irrigation will be given when CPE reaches to:
(A) 40 mm (B) 50 mm
(C) 55 mm (D) 60 mm
89. Which of the following machine is good for zero-till sowing of crops under surface residue retention?
(A) Turbo/Happy seeder (B) Ferti-seed drill
(C) Common zero-till drill (D) Type opener zero-till drill
90. The nitrogen uptake of rice increased from 50 kg/ha under control to 70 kg/ha with application of 40 kg N/ha. The apparent N recovery would be:
(A) 50.0% (B) 57.1%
(C) 80.0% (D) 60.0%
91. The exchangeable sodium percentage (ESP) of an alkali soil having 115 mg Na^+ /kg and CEC 50 cmol c/kg of soil is:
(A) 10 (B) 15
(C) 20 (D) 25
92. What will be the monetary advantage index (MAI) of an intercropping system, if LER is 1.5 and value of combined intercrops is Rs. 1000?
(A) 330 (B) 333.3
(C) 300 (D) 630
93. Sulfosulfuron (Leader 75WP) is to be applied @ 25 g ha^{-1} for 2 hectares. What is amount of commercial product (~Leader) required?
(A) 60 g (B) 66.6 g
(C) 50 g (D) 55.5 g
94. A soil is having C:N ratio of 10:1 and nitrogen content of 0.25%. What is the organic matter content of the soil?
(A) 5.2% (B) 4.3%
(C) 3.4% (D) 4.5%

95. If the weight of lint is 10 g and weight of cotton seed is 20 g, the ginning percentage of cotton is:
 (A) 50% (B) 33%
 (C) 30% (D) 35%
96. Which of the following is correct about crop growth rate (CGR)?
 (A) $NAR \times LAR = CGR$ (B) $NAR \times LAI = CGR$
 (C) $LAI \times \text{Crop duration} = CGR$ (D) $RGR \times LAR = CGR$
97. Which is known as accumulator of Zn?
 (A) *Amaranthus viridis* (B) *Chenopodium album*
 (C) *Setaria lutescens* (D) *Portulaca oleracea*
98. The depth of planting of sugarcane setts is:
 (A) 5 cm (B) 10 cm
 (C) 15 cm (D) 25 cm
99. C value for Nitrogen in Mitscherlich equation:
 (A) 0.40 (B) 0.122
 (C) 0.60 (D) 0.301
100. An experimental plot has length 5 m and 7 rows spaced at 50 cm. At harvesting one border row from either side is left out. The net plot size will be:
 (A) 5.0m x 2.5m (B) 6.0 m x 1.5m
 (C) 4.0m x 3.0 m (D) 3.5m x 3.0m
101. $Y = 10000 - 1000X$ yield of seed cotton with 50000 plants per hectare and 20 bolls/plant, the per boll yield of seed cotton should be:
 (A) 30 g (B) 3 g
 (C) 7.7 g (D) 300 mg
102. If 4 levels of sowing dates are laid out in main plots, 5 levels of N applied in sub-plot and replicated 3 times, the degrees of freedom for Error(b) is:
 (A) 30 (B) 60
 (C) 12 (D) 24
103. "Feed the soil not the plant" is the watch word of:
 (A) Eco-farming (B) Conservation agriculture
 (C) Natural farming (D) Precision agriculture
104. A plant sample contains 0.3% P. The amount of P in plant is:
 (A) 3000 ppm P (B) 300 ppm P
 (C) 30000 ppm P (D) 3 ppm P

116. According to US Salinity Laboratories, irrigation water is considered high salinity water if its EC ranges between:
 (A) $<0.25 \text{ dS m}^{-1}$ (B) $0.25-0.75 \text{ dS m}^{-1}$
 (C) $0.75-2.25 \text{ dS m}^{-1}$ (D) $2.5-5 \text{ dS m}^{-1}$
117. The herbicide/herbicide group that shows epinasty symptom after its exposure to plants is:
 (A) Triazines (B) Paraquat
 (C) Nitrofen (D) Benzoic acids
118. The minimum horse power requirement of tractor for zero tillage sowing with Turbo/Happy Seeder is:
 (A) 30 HP (B) 35 HP
 (C) 45 HP (D) 25 HP
119. The resource-use efficiency (RUE) is calculated by:
 (A) $\text{RUE} = 2 \times \text{Conversion efficiency}$ (B) $\text{RUE} = \frac{\text{Capture efficiency}}{\text{Conversion efficiency}}$
 (C) $\text{RUE} = \frac{\text{Conversion efficiency}}{\text{Capture efficiency}}$ (D) $\text{RUE} = (\text{Capture efficiency} \times \text{Conversion efficiency})$
120. The porosity (%) of a soil that has bulk density of 1.5 mg/m^3 and particle density of 2.65 mg/m^3 is:
 (A) 38 (B) 43
 (C) 46 (D) 23
121. In organic farming system, the Reams Fertility System is associated with:
 (A) Permaculture (B) Biological farming
 (C) Nature farming (D) Biodynamic agriculture
122. The headquarters of International Federation of Organic Agriculture Movements (IFOAM) is situated in:
 (A) Geneva, Switzerland (B) Bonn, Germany
 (C) Milan, Italy (D) Canberra, Australia
123. The target weed species of fungus *Phytophthora citrophthora* p.v. *palmivora* is:
 (A) *Aeschynomene virginica* (B) *Malva prusila*
 (C) *Morrenia odorata* (D) *Cuscuta reflexa*
124. The approach, which is most commonly followed for fertilizer recommendations is:
 (A) Cation-ratio concept (B) Maintenance concept
 (C) Sufficiency level concept (D) Depletion concept

105. If a soil contains 0.57% organic C, the organic matter present in soil is:
 (A) 1.2% (B) 1.0%
 (C) 0.98% (D) 1.3%
106. Net benefit: cost is calculated by:
 (A) Net returns / total cost (B) Gross returns/total cost
 (C) Net returns/gross returns (D) Gross returns/Net returns
107. Micronaire in cotton is used to measure:
 (A) Fibre fineness (B) Fibre strength
 (C) Staple length (D) Fibre color
108. In space transplanting method of sugarcane planting, the seed requirement is:
 (A) 10 q/ha (B) 20 q/ha
 (C) 30 q/ha (D) 40 q/ha
109. Element that acts as regulator of K/Ca ratio in soil is.
 (A) S (B) B
 (C) Fe (D) Mn
110. Which of the following equations explains the Mitscherlich's law of yield:
 (A) $Y=a+bx+cx^2$ (B) $\log(A-y)=\log A-cx$
 (C) $y=M(1-R^x)$ (D) $Y=a+bx$
111. In meteorological observatory, the height of sunshine recorder from ground level is kept at:
 (A) 3.68 m (B) 3.08 m
 (C) 1.22 m (D) 75 cm
112. If the soil erodability factor (K) of a soil is low, it indicates that soil has:
 (A) Low infiltration rate (B) High infiltration rate
 (C) More soil erosion from surface (D) Low vegetative cover
113. A micronutrient found in most of the irrigation waters at low concentrations is:
 (A) Zinc (B) Iron
 (C) Copper (D) Boron
114. Optimum slope of the plots for broad bed and furrow method of irrigation is:
 (A) 0.4-0.8% (B) 0.1-0.2%
 (C) 0.2-0.4% (D) 0.9-1.0%
115. Which of the following herbicides has both symplastic and apoplastic movement?
 (A) Atrazine (B) Fenoxaprop-p-ethyl
 (C) Paraquat (D) Glufosinate-AM

125. An important creeping perennial weed is:
 (A) *Amaranthus hybridus* (B) *Sonchus oleraceus*
 (C) *Chromolaena odorata* (D) *Rumex dentatus*
126. Weed seed dormancy due to impermeable seed coat is observed in the plants of:
 (A) Fabaceae (B) Orchidaceae
 (C) Poaceae (D) Brassicaceae
127. The "Fakot" watershed project is situated in:
 (A) Himachal Pradesh (B) Punjab
 (C) Haryana (D) Uttar Pradesh
128. Which of the following weed species has comose type of seed dispersion mechanism by wind?
 (A) *Calotropis procera* (B) *Ageratum conyzoides*
 (C) *Convolvulus arvensis* (D) *Acer macrophyllum*
129. The weed that developed resistance against herbicide for the first time in the world is:
 (A) *Phalaris minor* (B) *Lolium rigidum*
 (C) *Senecio vulgaris* (D) *Cyperus iria*
130. As per Indian Meteorological Department (IMD), drought year occurs when annual rainfall is:
 (A) $\leq 75\%$ of normal (B) $\leq 25\%$ of normal
 (C) $\leq 50\%$ of normal (D) $\leq 100\%$ of normal
131. Arcsine transformation is used when percent data lies in the range of:
 (A) 30 to 70 (B) 50 to 100
 (C) 0 to 100 (D) 70 to 100
132. What will be the concentration of atrazine in solution, if 1.0 kg atrazine is dissolved in 1000 litres of water?
 (A) 100 ppm (B) 1000 ppm
 (C) 10,000 ppm (D) 1,00,000 ppm
133. Nitrogen inhibitor recommended for dryland areas to reduce nitrogen losses is:
 (A) Oxamide (B) Cynamide
 (C) N-serve (D) Thiourea
134. The largest agro-climatic zone in the country is:
 (A) Western dry region (B) Eastern plateau and hill region
 (C) Western plateau and hill region (D) The island region

135. Number of moisture belts as per the ICAR classification of agro-climatic zones is:
(A) 5 (B) 10
(C) 8 (D) 7
136. An ultra low volume sprayer producing mist will have droplet size of:
(A) Upto 50 micron (B) 50-100 micron
(C) 101-200 micron (D) 201-400 micron
137. The area of a micro-watershed is:
(A) 100-250 ha (B) 250-500 ha
(C) 1-100 ha (D) 500-1000 ha
138. The reduction of carbon dioxide is also called:
(A) Light reaction (B) Dark reaction
(C) Energy (D) Carbon fixation
139. At physiological maturity the moisture percentage of grain is about:
(A) 10 % (B) 15 %
(C) 20 % (D) 25 %
140. Watson (1947) developed the concept of:
(A) Leaf area duration (B) Leaf area
(C) Relative growth rate (D) Leaf area index
141. Acid soils can be converted into neutral soils by addition of:
(A) Lime (B) Gypsum
(C) Organic matter (D) Compost
142. Space around the root surface of higher plants is called:
(A) Rhizosphere (B) Root zone
(C) Rhizobium (D) Root mass
143. Foundation seed is the progeny of:
(A) Nucleus seed (B) Breeder seed
(C) Certified seed (D) Truthful seed
144. *Sesbania rostrata* is a stem nodulating green manure crop which is a native of:
(A) China (B) West Africa
(C) America (D) India
145. Nitrogen fixation by leguminous green manure crops can be increased by application of:
(A) Phosphatic fertilizers (B) Ammonium sulphate
(C) Ammonium fertilizers (D) Nitrogenous fertilizers

146. The amount of water required to produce a unit amount of dry matter is known as:
 (A) Transpiration ratio (B) Evapotranspiration
 (C) Transpiration (D) Evaporation
147. Harvesting maturity generally occurs after physiological maturity in:
 (A) 3 days (B) 5 days
 (C) 10 days (D) 7 days
148. Ozone layer in the stratosphere protects the surface of the earth from sun's:
 (A) Ultraviolet radiation (B) Photosynthetically active radiation
 (C) Long wave radiation (D) Near infrared radiation
149. Root primordial in the embryo of a seed is:
 (A) Radicle (B) Primary root
 (C) Shoot (D) Seminal root
150. Horizontal, slender, underground root like stems that have roots and leafy shoots are :
 (A) Rhizome (B) Culm
 (C) Sucker (D) Stolon

Cross matching type questions (151 to 160). Each sub-question carries ONE mark. Choose the correct answer (A, B, C, D and E) for each sub-question (i, ii, iii, iv and v) and enter your choice in the circle (by shading with Black/Blue ball point pen) on the OMR- Answer Sheet. For each wrong answer 0.20 marks will be deducted

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| 151. Scientists | Indices |
| (i) Gregory | (A) Leaf area index |
| (ii) Blackman | (B) Specific leaf weight |
| (iii) Watson | (C) Light transmission ratio |
| (iv) Hayashi | (D) Relative growth rate |
| (v) Monsi and Saeki | (E) Net assimilation rate |
| 152. Physiological action | Chemical |
| (i) Growth retardant | (A) Triacontanol |
| (ii) Ripener | (B) Maleic hydrazide |
| (iii) Defoliant | (C) Glyphosate |
| (iv) Dwarfner | (D) Abscissic acid |
| (v) Growth stimulant | (E) Cycocel |

153. **Instrument**
 (i) SPAD meter
 (ii) IRGA
 (iii) Rhizotron
 (iv) Theta probe
 (v) ICP
- Measured parameter**
 (A) Soil moisture
 (B) Nutrients
 (C) Photosynthesis
 (D) Chlorophyll
 (E) Roots
154. **Chemical name**
 (i) Paraquat
 (ii) Glyphosate
 (iii) Oxyflourfen
 (iv) Pendimethalin
 (v) Butachlor
- Trade name**
 (A) Machete
 (B) Goal
 (C) Round up
 (D) Gramoxone
 (E) Stomp
155. **Nomenclature**
 (i) Isohyets
 (ii) Isonephys
 (iii) Isotachs
 (iv) isotones
 (v) isohels
- Parameter used**
 (A) Wind speed
 (B) Neutrons
 (C) Sunshine
 (D) Clouds
 (E) Rainfall
156. **Common name of weeds**
 (i) Field bindweed
 (ii) Swine cress
 (iii) Day flower
 (iv) Pimpernel
 (v) Corn cockle
- Scientific name of weeds**
 (A) *Coronopus didymus*
 (B) *Commelina Africana*
 (C) *Agrostemma githago*
 (D) *Convolvulus arvensis*
 (E) *Anagallis arvensis*
157. **Crops**
 (i) Soybean
 (ii) Maize
 (iii) Tobacco (*Nicotiana tabacum*)
 (iv) Common potato (*Solanum tuberosum*)
 (v) Cotton (*Gossypium herbaceum*)
- Place (s) of origin**
 (A) Chilean centre
 (B) Chinese centre
 (C) South Mexican and Central American centre
 (D) Peruvian, Ecuadorean and Bolivian centre
 (E) Central Asiatic centre
158. **Micronutrients**
 (i) Zn
 (ii) Cu
 (iii) Fe
 (iv) Mn
 (v) B
- Critical limit in soil (mg/kg)**
 (A) 0.5
 (B) 0.2
 (C) 2.0
 (D) 4.5
 (E) 0.6

159. Crop

- (i) Sugarcane
- (ii) Cotton
- (iii) Rapeseed-mustard
- (iv) Berseem
- (v) Sunflower

Irrigation scheduling criteria
based on IW/CPE ratio:

- (A) 1.0
- (B) 0.9
- (C) 0.8
- (D) 0.75
- (E) 0.7

160. Crop

- (i) Maize
- (ii) Pearl millet
- (iii) Cotton
- (iv) Wheat
- (v) Pigeon pea

Variety

- (A) Rajlaxmi
- (B) Pusa 992
- (C) Pusa Composite 4
- (D) Pusa Composite 443
- (E) Aurobindo