

1. The behavior of a plant in relation to day length is termed as:
 - (A) Heliotropism
 - (B) Thermotropism
 - (C) Photoperiodism
 - (D) None of them
2. Which is not a long day plant?
 - (A) Wheat
 - (B) Potato
 - (C) Soybean
 - (D) Black gram
3. The soil groups, pedocals and pedalfers were given by:
 - (A) Marbut
 - (B) Joffe
 - (C) Dokuchaev
 - (D) Baldwin and associates
4. $E_h = E^{\circ} + 0.059/n \log K_{eq}$ is:
 - (A) Electrode potential
 - (B) Oxidation potential
 - (C) Ernest potential
 - (D) Donan potential
5. With increase in solute content in soil water, osmotic pressure and vapor pressure consequently.
 - (A) Increases, decreases
 - (B) Decreases, increases
 - (C) Increases, increases
 - (D) None of these
6. Critical soil test level approach was given by:
 - (A) Cate and Nelson
 - (B) Larsen
 - (C) Arnon and Stout
 - (D) Bray
7. Example of tectosilicates:
 - (A) Pyroxine
 - (B) Quartz
 - (C) Amphibole
 - (D) Mica
8. Which class of land capability classes has very strong salinity characteristics?
 - (A) Class 1
 - (B) Class 4
 - (C) Class 2
 - (D) Class 3
9. Which organic fraction of humus has lower molecular weight?
 - (A) Fulvic acid
 - (B) Hymatomelanic acid
 - (C) Humic acid
 - (D) Humin
10. Highly hygroscopic fertilizer is:
 - (A) Ammonium chloride
 - (B) Ammonium sulphate
 - (C) Urea
 - (D) CAN
11. Hen and chicken disorder in grapes is due to the deficiency of:
 - (A) B
 - (B) Zn
 - (C) Fe
 - (D) Mo

12. In clay minerals identification, which method is commonly used for qualitative analysis?
- (A) X-ray diffraction analysis
 (B) Differential thermal analysis (DTA)
 (C) Infrared spectroscopy
 (D) All of these
13. The potential determining ions in soil system are
- (A) Si^{4+} Al^{3+}
 (B) O^{2-} OH^-
 (C) H^+ OH^-
 (D) None of these
14. VAM fungi are
- (A) Obligate symbiont
 (B) Facultative symbiont
 (C) Free-living
 (D) Both (A) & (B)
15. The intensity of insolation depends upon
- (A) Altitude
 (B) Wind
 (C) Latitude
 (D) None of these
16. Path distance is covered by solar radiation is more at:
- (A) Sunrise
 (B) Sunset
 (C) Sunrise and sunset
 (D) Noon
17. Mg rich secondary clay mineral is
- (A) Montmorillonite
 (B) Kaolinite
 (C) Chlorite
 (D) Vermiculite
18. Which of the following is an aquatic fern?
- (A) Azolla
 (B) Anabaena
 (C) BGA
 (D) Both (A) & (B)
19. Most of the coastal soils are rich in:
- (A) Nitrogen
 (B) Phosphorus
 (C) Potassium
 (D) Calcium and Magnesium
20. The CO_2 concentration at which CO_2 fixed by photosynthesis and CO_2 produced by respiration equal each other is called:
- (A) Carbon dioxide compensation point
 (B) Saturation point
 (C) CO_2 balance
 (D) Ecological efficiency
21. The term often used to describe sun-induced leaf movements is:
- (A) Heliotropism
 (B) Paraheliotropic
 (C) Dieliotropic
 (D) Solar-tracking
22. A large family of nitrogen-containing secondary metabolites found in many vascular plants are named as:
- (A) Allelochems
 (B) Alkaloids
 (C) Amide
 (D) Amine

23. Uptake of atmospheric O_2 with a concomitant release of CO_2 by illuminated leaves is called:
- (A) Photoprotection
(C) Photoperiodism
(B) Photorespiration
(D) Photophosphorylation
24. Eutrophication of water bodies is triggered by:
- (A) Excessive growth of phytoplankton
(B) Excessive inflow of nutrients
(C) Bright sunlight
(D) Excessive growth of fishes
25. The weathering of basalt rocks results in the formation of:
- (A) Basic soil
(C) Loam soil
(B) Acidic soil
(D) Sandy soil
26. CAM photosynthesis is found in:
- (A) Blue green algae
(B) Lichens
(C) Submerged aquatic plants
(D) Succulent plants
27. Flame photometry is based on the principle of:
- (A) Absorption spectroscopy
(C) IR spectroscopy
(B) Emission spectroscopy
(D) ESR spectroscopy
28. Energy derived from heated groundwater is called:
- (A) Solar energy
(C) Nuclear energy
(B) Hydroelectric energy
(D) Geothermal energy
29. With the increase in water pollution, the BOD:
- (A) Decreases
(C) Remains the same
(B) Increases
(D) Not measure of pollution
30. Cancer causing agents are called as:
- (A) Mutagens
(C) Neurogens
(B) Teratogens
(D) Carcinogens
31. The toxic substance in the Bhopal gas tragedy was:
- (A) NO_2
(C) DDT
(B) SO_2
(D) MIC
32. Which of the following radioisotopes is found in air?
- (A) ^{238}U
(C) ^{226}Ra
(B) ^{232}Th
(D) ^{222}Rn
33. The prominent source of natural radioactivity in the soils is:
- (A) ^{60}Co
(C) ^{40}K
(B) ^{55}Fe
(D) ^{32}P

(Handwritten signature)

34. Alum is a: (B) Flocculant
(A) Coagulant (D) Disinfectant
(C) Catalyst
35. Khaira disease of rice can be controlled by spraying: (B) Manganese sulphate
(A) Copper sulphate (D) Zinc sulphate
(C) Borax
36. Wind is caused by:
(A) Change in temperature
(B) Drop in the moisture content of atmosphere
(C) Difference in air pressure
(D) Heavy rain
37. A system of farming on a particular farm which includes crop production, raising livestock, poultry, fisheries, etc is called:
(A) Mixed farming (B) Inter cropping
(C) Relay cropping (D) Mixed cropping
38. Entisols denotes to:
(A) Alluvial soils (B) Organic soil
(C) Prairie soils (D) Black soils
39. On addition of organic matter bulk density:
(A) Decreases (B) Increases
(C) Not affected (D) Sometimes increases
40. The size of the micro pores in mm is
(A) 0.06 (B) 0.02
(C) 0.10 (D) 0.2
41. Cohesion is
(A) Attraction of water molecules for each other
(B) Attraction of water molecules for solid surface
(C) Repulsion of water molecules for each other
(D) Repulsion of water molecules for solid surface
42. Surface tension is the result of
(A) Cohesion (B) Adhesion
(C) Absorption (D) Binding
43. The plant usually utilizes water held in soil between
(A) > 0 bars (B) < 1 bars
(C) -0.1 to -31 bars (D) -0.1 to -15 bars
44. The soil exhibits acidity, if base saturation is
(A) $> 80\%$ (B) $< 80\%$
(C) $40-60\%$ (D) $20-40\%$

45. Sodic soils are those with
 (A) >8.5 pH and < 4 EC ✓
 (B) < 8.5 pH and 4 EC
 (C) >8.5 pH and >4 EC
 (D) < 8.5 pH and > 4 EC
46. Histosols are the soils, which contain
 (A) $>20\%$ O.M.
 (B) $>2\%$ O.M.
 (C) $> 5\%$ O.M.
 (D) 10% O.M.
47. The essential element for the synthesis of auxin
 (A) Zinc
 (B) Manganese
 (C) Iron
 (D) Sulphur
48. Plasmolysis occurs due to
 (A) Evaporation
 (B) Osmosis
 (C) Transpiration
 (D) Exosmosis
49. The amino acid that is accumulated under water stress conditions in plant is
 (A) Violaxanthin
 (B) Auxin
 (C) Proline
 (D) Polyamines
50. The Pine vegetation will more likely develop in this soil condition
 (A) Acidity
 (B) Sodicity
 (C) Salinity
 (D) Neutrality
51. With the increasing soil moisture, the heat capacity of soil
 (A) Decreases
 (B) Increases
 (C) Remain unchanged
 (D) None of the above
52. The availability of Fe and Mn is maximum at
 (A) > 5.5 pH
 (B) <5.5 pH
 (C) > 6.5 pH
 (D) > 7.5 pH
53. The C:N ratio in the bodies of micro-organics ranges from
 (A) 1:1 to 4:1
 (B) 4:1 to 9:1
 (C) 10:1 to 14:1
 (D) 15:1 to 20:1
54. Which micronutrient is not essential for photosynthesis in plants?
 (A) Zinc
 (B) Copper
 (C) Manganese ✓
 (D) Chlorine ✓
55. The pale yellow inter-venial chlorosis in the young leaves of plant is the symptom of
 (A) Nitrogen
 (B) Phosphorous
 (C) Iron
 (D) Magnesium
56. Mid-season drying of the field is a practice commonly adopted in
 (A) Wheat
 (B) Sugarcane
 (C) Rice
 (D) Cotton

57. Which is not a C₄ crop?
 (A) Wheat (B) maize
 (C) Sugarcane (D) Sorghum
58. Which is the radioactive phosphate similar to phosphorous absorbed by plants
 (A) Phosphorous-31 (B) Phosphorous-32
 (C) Phosphorous-30 (D) Phosphorous-33
59. The ratio of the radiant power transmitted by a sample to radiant power incident on the sample is
 (A) Refraction (B) Defraction
 (C) Transmittance (D) Absorbance
60. Which of the following is sulphur containing amino acid
 (A) Lysine (B) Proline
 (C) Cystine (D) Tryptophan
61. The latent heat of vaporization of water in cal/g of water is
 (A) 80 (B) 110
 (C) 340 (D) 540
62. Which of the following is the only acid that oxidizes and dissolves gold
 (A) Aqua regia (B) Fuming Sulphuric acid
 (C) Nitric acid (D) Perchloric acid
63. Organophosphate pesticides disrupt mainly
 (A) Digestive system (B) Circulatory system
 (C) Nervous system (D) Skin
64. The chemical name for "soda ash" is
 (A) Sodium carbonate (B) Carbolic acid
 (C) Magnesium hydroxide (D) Calcium oxide
65. The international institute on wheat and maize called as CIMMYT is situated in
 (A) USA (B) China
 (C) Mexico (D) Japan
66. The most electronegative element in the periodic table is
 (A) Chlorine (B) Fluorine
 (C) Gold (D) Silver
67. In India, which soil order has negligible area
 (A) Oxisols (B) Vertisols
 (C) Inceptisols (D) Histosols
68. Soil particle analysis make use of
 (A) Arnold's law (B) Darcy's law
 (C) Ishiwata's law (D) Stoke's law

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69. Which one does not contribute to nitrogen availability in the soil
 (A) Decay of organic matter (B) Electric storms
 (C) Azotobacter (D) Liming
70. Lateral movement of water is called
 (A) Percolation (B) Seepage
 (C) Infiltration (D) Permeability
71. Osmotic potential of pure water is
 (A) Zero (B) One
 (C) More than one (D) Less than one
72. The weight of a half mole of water is
 (A) 0.5 g (B) 1.0 g
 (C) 9.0 g (D) 18.0 g
73. Ion exchange is a
 (A) Static process (B) Reversible process
 (C) Process for cation exchange only (D) Process for anion exchange only
74. In international pipette method, H_2O_2 is used for
 (A) Removal of $CaCO_3$ (B) Removal of Iron oxide
 (C) Removal of organic matter (D) None of these
75. Which of the following mineral does not belong to primary mineral
 (A) Quartz (B) Orthoclase
 (C) Biotite (D) Hematite
76. Unit of viscosity is
 (A) Gram/cm (B) Poise
 (C) Cal/g (D) Cal/cm
77. Which law is used in studies of air movement
 (A) Darcy's law (B) Fick's law
 (C) Fourier's law (D) Ohm's law
78. Total porosity is less in
 (A) Sandy soil (B) Clayey soil
 (C) Loamy soil (D) Silty soil
79. The process of mixing of the soil is called as
 (A) Pedoturbation (B) Podzolization
 (C) Humification (D) Laterization
80. Cation exchange capacity of vermiculite is
 (A) 80-100 c.mol (p+)/kg soil (B) 100-150 c.mol (p+)/kg soil
 (C) 15-40 c.mol (p+)/kg soil (D) 3-15 c.mol (p+)/kg soil

81. Most porous soil structure
(A) Granular (B) Crumb
(C) Prismatic (D) Platy
82. Which element enhances drought resistance in plants
(A) N (B) P
(C) K (D) Mo
83. Enzymes are basically made up of
(A) Fats (B) Proteins
(C) Nucleic acids (D) Vitamins
84. The enzyme responsible for the reduction of molecular nitrogen to the level of ammonia in the leguminous root nodule is
(A) Nitrogenase (B) Nitrate reductase
(C) Nitrite reductase (D) All of the above
85. Which of the following is a molybdenum containing enzyme
(A) Nitrogenase (B) Peroxidase
(C) Carbonic anhydrase (D) Catalase
86. Which is the example of self indicator
(A) $K_2Cr_2O_7$ (B) KOH
(C) $KMnO_4$ (D) $AgNO_3$
87. Increase in soil pH increases the availability of :
(A) Mn (B) Mo
(C) Fe (D) Cu
88. Which element is required for photosynthetic evolution of oxygen
(A) Cu (B) Fe
(C) Zn (D) Mn
89. Soil moisture is measured by:
(A) Tensiometer (B) Lysimeter
(C) Photometer (D) Luxmeter
90. The most advanced stage of weathering is represented by:
(A) Entisols (B) Oxisols
(C) Gelisols (D) Histosols
91. Which gas causes depletion of Ozone layer in the atmosphere is:
(A) Ethane (B) Methane
(C) Carbondioxide (D) Chlorofluoro carbon
92. Transpiration rate is inversely related to:
(A) Humidity (B) Light
(C) Temperature

93. National Academy of Agriculture Research Management (NAARM) is located at:
(A) New Delhi (B) Hyderabad
(C) Bangalore (D) Kolkata
94. Ethylene is mainly responsible for:
(A) Formation of root hair (B) Formation of flower
(C) Ripening of fruits (D) Formation of fruit
95. Phosphatic biofertilizers contain live cells of phosphate solubilising bacteria belonging to the genera:
(A) *Azospirillum* (B) *Azotobacter*
(C) *Pseudomonas* (D) *Rhizobium*
96. Which of the following gases have highest contribution in total global warming:
(A) CO_2 (B) N_2O
(C) CFCs (D) CH_4
97. Name the crop which can synthesize Hydrocyanic acid.
(A) Sorghum (B) Cotton
(C) Maize (D) Sugar beet
98. *Phalaris minor* is the prominent weed of:
(A) Rice (B) Sugarcane
(C) Cotton (D) Wheat
99. Name the weed of wheat crop largely used as vegetable (leaves).
(A) *Convolvulus arvensis* (B) *Chenopodium album*
(C) *Chenopodium murale* (D) *Avena sativa*
100. The cause of the great Bengal Famine of 1943 was:
(A) Late blight of potato (B) Blast of rice
(C) Brown Spot of rice (D) Rust of wheat
101. Pendimethalin is a:
(A) Pre-emergence weedicide
(B) Post emergence weedicide
(C) Anti floral dropping enzyme
(D) Floral initiation enzyme
102. Which one of the following component of soil organic matter is most resistant to decomposition?
(A) Cellulose (B) Hemicellulose
(C) Starch (D) Lignin
103. The accumulation of the organic acid in CAM plants:
(A) Increases during the day
(B) Decreases during day
(C) Increases during the night
(D) Decreases during night

104. STCR approach for fertilizer application in crop field was introduced in India by:

- (A) J.S. Kalra (B) N.P. Dutta
(C) B. Ramamoorthy (D) K.V. Raman

105. The first step of nitrogen mineralization is known as:

- (A) Immobilization (B) Ammonification
(C) Aminization (D) Nitrification

106. The common bread wheat "Triticum aestivum" is a:

- (A) Tetraploid (B) Hexaploid
(C) Haploid (D) Diploid

107. Yellow Rust in wheat is caused by:

- (A) Xanthomonas graminis
(B) Puccinia recondita
(C) Puccinia graminis
(D) Puccinia striiformis

108. 0.1 % solution of a chemical is equivalent to:

- (A) 10000 ppm (B) 1000 ppm
(C) 100 ppm (D) 10 ppm

109. Avogadro's number is equal to:

- (A) 6.023×10^{17} (B) 6.023×10^{19}
(C) 6.023×10^{21} (D) 6.023×10^{23}

110. The factor "S" in universal soil loss equation denotes:

- (A) Slope gradient ✓
(B) Soil texture
(C) Slope-length
(D) Soil erodibility

111. Paddy crop prefers absorbing nitrogen in the form of:

- (A) NH_4^+
(B) NO_3^-
(C) N_2
(D) N_2O

112. GDD concept is based on:

- (A) Accumulated heat units over base temperature
(B) Accumulated heat units below base temperature
(C) Accumulated photothermal units
(D) Accumulated heliothermal units

113. Which element is found in maximum amount in earth's crust?

- (A) Silicon (B) Oxygen
(C) Aluminium (D) Iron

Handwritten notes:
1 ppm = 1 mg
0.1% SL
1% SL → 1g in 100g
0.1g in 100g

114. Which of the following fertilizer is not produced in India?
 (A) DAP
 (C) Urea
 (B) Muriate of Potash
 (D) Zinc sulphate
115. The process of accumulation of soil material into a horizon by movement out of some other horizon is called as:
 (A) Alluviation
 (B) Illuviation
 (C) Leaching
 (D) Humification
116. Anhydrous Ammonia contains:
 (A) 60 % of nitrogen
 (C) 80 % of nitrogen
 (B) 90 % of nitrogen
 (D) 100 % of nitrogen
117. Zinc sulphate contains:
 (A) 23 % zinc
 (C) 60 % zinc
 (B) 43 % zinc
 (D) 35 % zinc
118. Metamorphic rocks can be formed from:
 (A) Igneous rocks
 (B) Sedimentary rocks
 (C) Igneous or sedimentary rock
 (D) Rock resulting from the exposure of eroded rocks
119. Coal is a rock of:
 (A) Igneous type
 (C) Metamorphic origin
 (B) Sedimentary origin
 (D) Glacial origin
120. The rocks found over the largest surface area of the globe are:
 (A) Sedimentary
 (C) Metamorphic
 (B) Igneous
 (D) Glacial rock
121. Ozone in the atmosphere absorbs:
 (A) Ultraviolet radiation
 (C) Water vapours
 (B) Infrared radiation
 (D) Carbon dioxide
122. With increase in altitude the density of gases:
 (A) Decreases
 (B) Increases
 (C) Not affected
 (D) Both decreases and increases
123. Oxisols soils are largely confined to:
 (A) Hot and humid climates of equatorial region
 (B) Dry regions of world
 (C) Grasslands
 (D) Temperate regions of world

124. In general the lower the latitude of a place, the:

- (A) More the solar energy it receives
- (B) Lesser the solar energy it receives
- (C) Not related with latitude
- (D) Not affected by solar energy

125. Epiphytes are plants that:

- (A) Derive their water and nutrients from air
- (B) Have a wide range of water tolerance
- (C) Tolerates saline conditions
- (D) Complete their life cycle in very short period

126. Flame photometer is being used mainly for the estimation of:

- (A) Phosphorus
- (B) Potassium
- (C) Nitrogen
- (D) Carbon

127. A reaction type in which two compounds are joined with the elimination of water is called:

- (A) Condensation
- (B) Conformation \checkmark
- (C) Complementary
- (D) Configuration

128. Scurvy disease is caused by deficiency of:

- (A) Vitamin C
- (B) Vitamin B-Complex
- (C) Vitamin D
- (D) Calcium

129. The important technique for the separation of proteins based on the migration of charged proteins in an electric field is called:

- (A) Electrophoresis
- (B) Isoelectric focussing
- (C) Two-dimensional electrophoresis
- (D) SDS gel electrophoresis

130. The amount of Evapotranspiration is affected by:

- (A) Solar radiation
- (B) Temperature
- (C) Wind
- (D) Solar radiation, temperature wind and relative humidity

131. Immobilization of N by microbes is a common result after:

- (A) Large additions of residues with high C-N ratio
- (B) Addition of less amount of residues
- (C) Addition of fast decomposing material
- (D) Addition of water content

132. The S.I. unit of radioactivity is:

- (A) Roentgen
- (B) Rad
- (C) Becquerel
- (D) Gray

133. The half life of radio nuclide is given by:

(A) $T_{1/2} = \frac{0.693}{\lambda}$

(B) $T_{1/2} = \frac{\lambda}{0.639}$

(C) $T_{1/2} = \frac{1.44}{\lambda}$

(D) $T_{1/2} = 1.44\lambda$

$T_{1/2}$

134. Which of the following wavelength ranges is associated with UV spectroscopy?

(A) 00.8 to 10nm

(B) 200 to 400nm

(C) 100 to 400nm

(D) 380 to 750nm

135. In reversed phase HPLC instrumentation:

(A) A hydrophilic stationary phase is combined with polar mobile phase

(B) A hydrophobic stationary phase is combined with polar mobile phase

(C) A hydrophobic stationary phase is combined with non polar mobile phase

(D) A hydrophilic stationary phase is combined with non polar mobile phase

136. Finger print region is observed in:

(A) NMR Spectroscopy

(B) Elemental analysis

(C) IR Spectroscopy

(D) ESR Spectroscopy

137. What is the meaning of the term wave number, which is used in IR spectroscopy?

(A) It is the reciprocal of the wavelength of radiation of particular energy

(B) It is the number of waves that pass through a particular point each second

(C) It is another term for the energy of radiation in the IR band

(D) It is the total number of wavelengths of IR radiation absorbed by the compound.

138. In plants three elements C, H and O obtain from air or water compose about

(A) 60%

(B) 65%

(C) 20%

(D) 95%

139. The ordinary rain will generally be:

(A) Slightly acidic

(B) Highly acidic

(C) Slightly alkaline

(D) Highly alkaline

140. Thermocouple psychrometer is used to measure:

(A) Soil water potential ✓

(B) Osmotic potential

(C) Hydraulic conductivity

(D) Infiltration

141. Auxin is:
(A) An enzyme
(C) A hormone
(B) A vitamin
(D) A protein
142. Which mineral is generally found abundantly in rocks?
(A) Carbonates
(C) Silicates
(B) Sulphates
(D) Chlorides
143. Which elemental cycle has no atmospheric reserve:
(A) Sulfur
(C) Phosphorus
(B) Nitrogen
(D) Carbon
144. Azotobacter is a:
(A) Symbiotic bacteria
(B) Associative bacteria
(C) Free living bacteria
(D) Free living and associative bacteria ✓
145. Hormone responsible for breaking dormancy of winter buds is:
(A) Ethylene
(C) Auxin
(B) Gibberlin
(D) Cytokinin
146. Which one of the following contains magnesium:
(A) Nitrogenase
(C) B-carotene
(B) Chlorophyll
(D) Phytol
147. Hardness of minerals is measured in:
(A) Mohr's scale ✓
(B) Talc scale
(C) Clastic scale
(D) Beaufor's scale
148. The specific gravity of concentrated H_2SO_4 is around:
(A) 1.18
(C) 1.82
(B) 1.81
(D) 1.84
149. In C_3 plants CO_2 is initially converted in to:
(A) Oxalic acid
(B) Pyruvate
(C) Indole acetic acid
(D) Phosphoglyceraldehyde (PGA) ✓
150. Plants absorb this water from the soil:
(A) Hygroscopic
(B) Capillary water
(C) Gravitational water
(D) Both hygroscopic water and gravitational water

DIRECTIONS: (Question No. 151 to 160) Cross matching type questions. 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.

151. Match the following:

- (i) CAN
- (ii) Anhydrous ammonia
- (iii) Urea
- (iv) Ammonium sulphate
- (v) Ammonium nitrate

- (A) 21% (ii)
- (B) 82% (i)
- (C) 25% (iii)
- (D) 46% (iv)
- (E) 33% (v)

152. Match the following:

- (i) Direct solar radiation
- (ii) Atmospheric pressure
- (iii) Humidity
- (iv) Wind direction
- (v) Wind speed

- (A) Anemometer (v)
- (B) Pyrheliometer (i)
- (C) Barometer (ii)
- (D) Hygrometer (iii)
- (E) Wind vane (iv)

153. Match the following:

- (i) White grub
- (ii) Insect pest of cotton
- (iii) Cotton white fly
- (iv) Biopesticides
- (v) Predator

- (A) Helicoverpaarmigera 2
- (B) Holotrichia spp 1
- (C) Bemisiatabaci 3
- (D) Neem (iv)
- (E) Prey (v)

154. Match the following:

- (i) Azolla
- (ii) Symbiotic nitrogen fixation
- (iii) Free living bacteria
- (iv) Green manuring
- (v) Cover crop

- (A) Rice crop 1
- (B) Rhizobium 2
- (C) Azotobacter 3
- (D) Sunnhemp 4
- (E) Soil water conservation 5

155. Match the following:

- (i) Soil survey
- (ii) Land use
- (iii) C:N ratios
- (iv) Landslides and soil erosion
- (v) Soil and water conservation

- (A) GPS 1
- (B) Soil capability classification 2
- (C) Mineralization and immobilization 3
- (D) Green manuring 4
- (E) Hilly areas 5

156. Match the following:

- (i) Abscisic acid
- (ii) Ethylene
- (iii) Cytokinins
- (iv) Auxin
- (v) NAA

- (A) Dormancy 1
- (B) Ripening of fruits 2
- (C) Cell division 3
- (D) Herbicide
- (E) Increasing number of flowers

157. Match the following:

Land Capability Class

- (i) VIII
- (ii) III
- (iii) IV
- (iv) I
- (v) V

Uses

- (A) Intense Grazing 1
- (B) Limited Cultivation 3
- (C) Wild life & forestry 5
- (D) Moderate Cultivation 2
- (E) Very Intense Cultivation 4

158. Match the following:

- (i) Non expanding type clay
- (ii) A trioctahedral member of montmorillonite group
- (iii) 1:1 expanding clay mineral
- (iv) Fine grained illitic mica
- (v) 2:1 expanding clay mineral

- (A) Halloysite
- (B) Muscovite
- (C) Chlorite 1
- (D) Smectite
- (E) Beidellite

159. Match the following:

- (i) Global warming
- (ii) CO₂
- (iii) Volcano
- (iv) SO₂ pollution
- (v) Green house gas

- (A) Burning wood 2
- (B) Chlorofluorocarbon 1
- (C) Lichen
- (D) Water vapour
- (E) Gases 3

160. Match the following:

- (i) Flame photometer
- (ii) Photosynthesis
- (iii) Thornthwaite
- (iv) Watershed
- (v) Walkley black method

- (A) IRGA
- (B) Climatic classification
- (C) Organic carbon 5
- (D) Soil conservation 4
- (E) Available phosphorus 1