

PHYSICAL SCIENCE

1. The "International year of soil" was celebrated in the year:  
(A) 2005 (B) 2015  
(C) 2012 (D) 2010
2. Which is the day neutral plant?  
(A) Soybean (B) Sorghum  
(C) Rice (D) Groundnut
3. The natural aggregates in soil are:  
(A) Clod (B) Ped  
(C) Fragment (D) Mottle
4. Lime stone is the chief source for manufacturing of:  
(A) Cement (B) Steel  
(C) Phosphatic fertilizer (D) Basic slag
5. If the pH of a solution is 7, what is the pOH:  
(A) 4 (B) 10  
(C) 7 (D) 5
6. The science of study of earth's crust is known as:  
(A) Mineralogy (B) Petrology  
(C) Crystallography (D) Geology
7. The unit of expression of CEC is:  
(A)  $\text{meq } 100\text{g}^{-1}$  (B)  $\text{c mol } (\text{P}^+) \text{ kg}^{-1}$   
(C) Both A & B (D)  $\text{dSm}^{-1}$
8. The acid sulphate soils are also called as:  
(A) Cat clays (B) Red clays  
(C) Black clays (D) Brown clays
9. The upper size limit of clay particle is:  
(A) 0.02 mm (B) 2.0 mm  
(C) 0.002 mm (D) 0.2 mm

10. According to Ministry of Agriculture report (2013-14), the average per hectare consumption of NPK fertilizers was highest in the state of:  
(A) Punjab (B) Andhra Pradesh  
(C) Puducherry (D) Haryana
11. The study of soils in relation to plant growth is called as:  
(A) Pedology (B) Edaphology  
(C) Geology (D) Physiology
12. Enzymes are more active at:  
(A) Low temperature (B) High temperature  
(C) Optimum temperature (D) High humidity
13. Dr. Norman E. Borlaug was awarded Noble prize in the field of:  
(A) Agriculture (B) Peace  
(C) Chemistry (D) Genetics
14. The number of textural classes as per the textural triangle is:  
(A) 10 (B) 8  
(C) 12 (D) 16
15. Rust mottles are common in:  
(A) Well drained soil (B) Poorly drained soil  
(C) Moderately drained soil (D) Normal soil
16. The available water indicates water held between:  
(A) 1/3 to 15 bar (B) 15 to 31 bar  
(C) 0 to 31 bar (D) 0 to 100 bar
17. Thermal conductivity of the soil is in which of the following orders:  
(A) Sand > loam > clay (B) Sand < loam < clay  
(C) Sand > loam < clay (D) Sand < loam > clay
18. The clay mineral having highest cation exchange capacity is:  
(A) Kaolinite (B) Vermiculite  
(C) Illite (D) Chlorite
19. Which organism fixes atmospheric nitrogen symbiotically?  
(A) Rhizobium (B) Nitrobacteria  
(C) Nitrosomonas (D) Nitrosococcus
20. The difference between upper plastic limit and lower plastic limit is called as:  
(A) Plasticity index (B) Plasticity number  
(C) Plasticity coefficient (D) COLE

21. The maximum percent of biurate in urea as specified in "The Fertilizer Control Order" is:  
(A) 0.5 (B) 2.0  
(C) 2.5 (D) 3.5
22. The primary constituent of chlorophyll is:  
(A) Nitrogen (B) Phosphorus  
(C) Calcium (D) Magnesium
23. The land capability classes suited to cultivation is:  
(A) V to VIII (B) I to III  
(C) I to IV (D) VI to VIII
24. The source of permanent negative charge on silicate clays is:  
(A) Isomorphous substitution (B) Hydrolysis of water  
(C) Ionization of OH<sup>-</sup> groups (D) Alteration
25. Soil water potential is generally:  
(A) Zero (B) Positive  
(C) Neutral (D) Negative
26. The Iron deficiency is found mostly in which of these soil:  
(A) Calcareous (B) Acid  
(C) Saline (D) Normal
27. The micronutrient available under high pH is:  
(A) Iron (B) Zinc  
(C) Boron (D) Molybdenum
28. Soil water potential is measured by:  
(A) Tensiometer (B) Penetrometer  
(C) Pycnometer (D) Hydrometer
29. 'White bud' of maize is caused due to the deficiency of:  
(A) Zinc (B) Molybdenum  
(C) Nitrogen (D) Phosphorus
30. Among the following GHG's, which has the highest global warming Potential:  
(A) CO<sub>2</sub> (B) CH<sub>4</sub>  
(C) N<sub>2</sub>O (D) CFC's
31. Radiation most useful for photosynthesis is:  
(A) 300-900 nm (B) 300-400 nm  
(C) 400-700 nm (D) 400-600 nm

Code

Code-03

4

32. Rate of decrease of temperature with height is called as:  
(A) Edaphic rate (B) Dynamic rate  
(C) Lapse rate (D) Static rate
33. World Soil Day is celebrated every year on:  
(A) 16<sup>th</sup> September (B) 16<sup>th</sup> October  
(C) 16<sup>th</sup> November (D) 5<sup>th</sup> December
34. The titrant used in the determination of calcium and magnesium is:  
(A) DTPA (B) EDTA  
(C)  $\text{NH}_4\text{OAc}$  (D)  $\text{FeSO}_4$
35. Laterization is the process of accumulation of:  
(A) Sesquioxides (B) Silica  
(C)  $\text{CaCO}_3$  (D) Salts
36. When soil is saturated, its moisture content is:  
(A) Equal to field capacity (B) Greater than field capacity  
(C) Less than field capacity (D) Equal to PWP
37. The following soils have high osmotic potential:  
(A) Alkaline soils (B) Acid soils  
(C) Calcareous soils (D) Saline soils
38. Base unsaturated soils are:  
(A) Acid soils (B) Calcareous soils  
(C) Desert soils (D) Submerged soils
39. Strength of  $\text{H}_2\text{SO}_4$  used in the laboratory is:  
(A) 36 N (B) 16 N  
(C) 12 N (D) 14 N
40. The dispersing agent used in soil particle size analysis is:  
(A) Sodium hexa metaphosphate (B) Calcium chloride  
(C) Hydrogen peroxide (D) Sulphuric acid
41. The calcium carbonate equivalent of  $\text{CaCO}_3$  is:  
(A) 179 (B) 108  
(C) 136 (D) 100
42. DTPA stands for:  
(A) Diethylene Triamine Penta Acetic acid  
(B) Dichlor Triamine Penta Acetic acid  
(C) Dichloro Triethylene Penta Acetic acid  
(D) Diethylene Trichloro Penta Acetic acid

43. The concept of STCR (Targeted yield) approach in India was proposed by:  
(A) J.S. Kanwar (B) N.N. Goswami  
(C) N.P. Datta (D) B. Ramamoorthy
44. The mineral source of boron in soil is:  
(A) Apatite (B) Tourmaline  
(C) Pyrite (D) Bentonite
45. The N serve is a:  
(A) Nitrification inhibitor (B) Nitrification enhancer  
(C) Nitrogen fixer (D) Urease inhibitor
46. The concept of DRIS was developed by:  
(A) Cate and Nelson (B) Beaufils  
(C) Lindsay and Norwel (D) Page and Miller
47. The most abundant non-metal elements in the earth's crust are:  
(A) Silica and aluminum (B) Silica and oxygen  
(C) Silica and calcium (D) Silica and magnesium
48. Which group of soil microorganisms has highest biomass in soil:  
(A) Fungi (B) Bacteria  
(C) Algae (D) Actinomycetes
49. Gram equivalent of a solute dissolved in 1000 ml of solvent is:  
(A) Molar solution (B) Molal solution  
(C) Normal solution (D) Standard solution
50. The Critical level approach was proposed by:  
(A) Cate and Nelson (B) J.B Bousingault  
(C) Theoder de Saucer (D) Arnon and Stout
51. The availability of nutrient from soil reserves depends on:  
(A) Quantity factor (B) Intensity factor  
(C) Both A and B (D) Buffering
52. In Munsel color chart, the dominant spectral color is represented by:  
(A) Hue (B) Value  
(C) Chroma (D) Grade
53. The softest mineral in the earth crust is:  
(A) Gold (B) Quartz  
(C) Diamond (D) Talc

Codi

Code-03

6

54. Aggregate stability of soils is determined by:  
(A) Yoder's apparatus (B) Pressure plate apparatus  
(C) Atterberg's apparatus (D) Penetrometer
55. Particle density of soils can be determined by:  
(A) Hydrometer (B) Pycnometer  
(C) Penetrometer (D) Infiltrometer
56. Lignin is a polymer of:  
(A) Sugar alcohol (B) Aromatic alcohol  
(C) Polyphenols (D) Galactosamines
57. The correlation coefficient values ranges from:  
(A) -1 to +1 (B) 0 to 1  
(C) 1 to 10 (D) 1 to 5
58. The year 2016 has been recognized as the International Year of:  
(A) Millets (B) Pulses  
(C) Oil seeds (D) Sugarcane
59. Mycorrhizae help in uptake of which nutrient?  
(A) Phosphorus (B) Potassium  
(C) Nitrate (D) Molybdenum
60. The solar system belong to the galaxy called:  
(A) Andromeda nebula (B) Milky way  
(C) Radiogalaxy (D) Magellanic cloud
61. The process by which energy is generated in the sun is:  
(A) Nuclear fission (B) Nuclear fusion  
(C) Burning of gas (D) Yet unknown
62. The atmospheric layer most affected by air pollutants is:  
(A) Troposphere (B) Stratosphere  
(C) Mesosphere (D) Ionosphere
63. If carbon dioxide is withdrawn from the biosphere, which organism would first experience negative effect:  
(A) Primary consumers (B) Producers  
(C) Secondary consumers (D) Tertiary consumers
64. Which one of the following insecticides is the most persistent in soil?  
(A) Malathion (B) Aldrin  
(C) Gamma BHC (D) Parathion

65. Most used coagulant is:  
(A) Chlorine (B) Alum  
(C) Lime (D) Bleaching powder
66. Isobars means:  
(A) Line of constant pressure (B) Line of constant temperature  
(C) Line of constant humidity (D) Line of constant wind speed
67. Thermo couple psychrometer is used to measure:  
(A) Soil water potential (B) Osmotic potential  
(C) Hydraulic conductivity (D) Infiltration
68. Auxin is:  
(A) An enzyme (B) A vitamin  
(C) A hormone (D) A protein
69. Mull soils develop where the climate is:  
(A) Cool (B) Hot and humid  
(C) Hot (D) Moderate
70. High specific heat and high latent heat are the characteristics of:  
(A) Water (B) Mercury  
(C) Soil (D) Ethanol
71. Subsidence inversion can be related to:  
(A) Cyclone (B) Anticyclone  
(C) Radiation (D) Tornado
72. An ordinary rain will generally be:  
(A) Slightly acidic (B) Highly acidic  
(C) Slightly alkaline (D) Highly alkaline
73. Which one of the following pairs of crop and diseases is correctly matched?  
(A) Cabbage – early blight (B) Cucumber – club root  
(C) Potato – black wart (D) Tomato – white rust
74. Khaira disease of rice can be controlled by spraying:  
(A) Copper sulphate (B) Manganese sulphate  
(C) Borax (D) Zinc sulphate
75. Most resistant mineral is:  
(A) Quartz (B) Feldspar  
(C) Ferromagnesium (D) Calcite

Cod

Code-03

8

76. Absorbance in a spectrophotometer is equal to:  
(A)  $P_0/P$  (B)  $1/T$   
(C)  $\log P_0/P$  (D)  $\log P/P_0$
77. The Himalayan foot hills in Hardwar consists of:  
(A) Shiwalik system of rocks (B) Aravalli system of rocks  
(C) Vindhyan system of rocks (D) The deccan trap rocks
78. In  $C_3$  plants,  $CO_2$  is initially converted to:  
(A) Oxalic acid (B) Pyruvate  
(C) Indol acetic acid (D) Phosphoglyceraldehyde
79. The term often used to describe sun-induced leaf movements is:  
(A) Heliotropism (B) Paraheliotropic  
(C) Dianeliotropic (D) Solar-tracking
80. The ratio of total mass of soil solids to total volume of soil solids is called :  
(A) Particle density (B) Bulk density  
(C) Porosity (D) Air filled porosity
81. The most advanced stage of weathering is represented by:  
(A) Entisols (B) Oxisols  
(C) Gelisols (D) Histosols
82. The inherent capacity of a soil to supply essential nutrients to plants in adequate amount and in right proportion for their optimum growth is called:  
(A) Soil fertility (B) Optimum fertilizer rates  
(C) Efficient use of fertilizer (D) Integrated nutrient management
83. The manifestations of the physical forces of cohesion and adhesion acting within the soil at various moisture contents are designated as:  
(A) Soil consistency (B) Soil plasticity  
(C) Soil compression (D) Soil compaction
84. Azotobacter is a:  
(A) Symbiotic bacteria (B) Associative bacteria  
(C) Free living bacteria (D) Free living and associative bacteria
85. Drooping of leaves due to loss of turgor at noon but recovery in the evening is referred:  
(A) Temporary wilting (B) Incipient wilting  
(C) Permanent wilting (D) Midday desiccation



86. The cause of atmospheric pressure is:  
(A) Gravitational force of earth (B) Altitude from the sea level  
(C) Rotation of earth (D) Location specific
87. Lichens are the indicator of:  
(A) SO<sub>2</sub> pollution (B) Nox pollution  
(C) CO pollution (D) CH<sub>4</sub> pollution
88. Which one of the following is the renewable source of energy:  
(A) Coal (B) Petroleum  
(C) Natural gas (D) Solar
89. Noise pollution is measured in:  
(A) Hertz (B) Fathoms  
(C) Nanometers (D) Decibels
90. Which one is not an example of C<sub>4</sub> plant?  
(A) Sugarcane (B) Wheat  
(C) Sorghum (D) Portulaca
91. Krishi Vigyan Kendras are functioning through the financial assistance of:  
(A) State Govt. (B) UNICEF  
(C) ICAR (D) IARI
92. Jhuming is the other name for:  
(A) Mixed cropping (B) Shifting agriculture  
(C) Taungya (D) Agroforestry
93. Hormone responsible for breaking dormancy of winter buds is:  
(A) Ethylene (B) Gibberlin  
(C) Auxin (D) Cytokinin
94. Carbon becomes available to crop plant in the form of:  
(A) Amino acids (B) Carbonates  
(C) Carbon dioxide (D) Elemental carbon
95. The marble is an example of:  
(A) Metamorphic rock (B) Igneous rock  
(C) Sedimentary rock (D) Soil minerals
96. All air borne suspensions smaller than 1 μm are called:  
(A) Fog (B) Aerosol  
(C) Mist (D) Smoke

Cod

Code-03

10

97. Which gas is maximum in biogas?  
(A)  $\text{CH}_4$  (B)  $\text{CO}_2$   
(C)  $\text{H}_2$  (D)  $\text{N}_2$
98. The process of nutrient enrichment of water bodies leading to detrimental change in the water quality is called:  
(A) Eutrophication (B) Oligotrophication  
(C) Putrifaction (D) Contamination
99. When water potential of Cell A is -10 bars and Cell B is -18 bars, water moves from:  
(A) B to A (B) A to B  
(C) Does not move (D) Move in both direction
100. In which plants Stomata open during night and close during day?  
(A) C3 plants (B) C4 plants  
(C) CAM plants (D) Temperate plants
101. Which of the following vitamin is involved in the biosynthesis of collagen?  
(A) Vitamin A (B) Vitamin B1  
(C) Vitamin C (D) Vitamin B12
102. Atomic Absorption Spectrophotometer is used for which analyses?  
(A) Hydrocarbon analyses (B) Phosphate analyses  
(C) Pesticides analyses (D) Heavy metal analyses
103. The process of conversion of solid to vapour without becoming liquid is known as:  
(A) Sublimation (B) Solubilization  
(C) Vaporization (D) Ionization
104. Aqua regia is prepared by mixing:  
(A) Concentrated HCl and  $\text{HNO}_3$  (B) Concentrated  $\text{HNO}_3$  and  $\text{H}_2\text{SO}_4$   
(C) Concentrated HCl and  $\text{H}_2\text{SO}_4$  (D) Concentrated  $\text{HClO}_4$  and  $\text{H}_2\text{SO}_4$
105. What is the half-life of  $^{32}\text{P}$ ?  
(A) 32 days (B) 14.3 days  
(C) 86.7 days (D) 245 days
106. Which one is not a radio isotope?  
(A)  $^{35}\text{S}$  (B)  $^{14}\text{C}$   
(C)  $^{137}\text{Cs}$  (D)  $^{15}\text{N}$
107. Gilgai micro relief is found in which order?  
(A) Vertisol (B) Entisol  
(C) Andisol (D) Histosol

Code-03

108. Volcanic materials are usually found in which soil order?  
(A) Alfisols (B) Aridisols  
(C) Andisols (D) Gellisols
109. Norin-10 is a:  
(A) Dwarf gene of wheat (B) Dwarf gene of rice  
(C) Dwarf gene of maize (D) Disease resistant gene of Brinjal
110. Which of the following species of wheat is called as bread wheat?  
(A) *T. dicoccum* (B) *T. aestivum*  
(C) *T. durum* (D) *T. sativum*
111. Plasticity of soil can be determined by:  
(A) Hydrometer (B) Atterberg's apparatus  
(C) Pressure Plate Apparatus (D) Tensiometer
112. The major cementing agent in soil aggregate formation is:  
(A) Lipids (B) Proteins  
(C) Polysaccharides (D) Mineral nutrients
113. Which of the following is commonly referred to as muriate of potash?  
(A) Potassium nitrate (B) Potassium chloride  
(C) Potassium sulphate (D) Potassium silicate
114. Calcium sulphate ( $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ ) is added to reclaim:  
(A) Saline soil (B) Alkali soil  
(C) Acid soil (D) Calcareous soil
115. In acid soil, which one may be occurring?  
(A) Aluminum toxicity (B) Magnesium toxicity  
(C) Nitrate toxicity (D) Chloride toxicity
116. Alkali soils are generally found in:  
(A) Sub-humid climate (B) Arid and semi-arid climate  
(C) Temperate climate (D) Humid climate
117. Anaerobic environment of paddy soil is responsible for which of the following process that result in the gaseous loss of fertilizer nitrogen:  
(A) Ammonification (B) Nitrification  
(C) Denitrification (D) Volatilization
118. Apatite is a group of minerals which mainly contains:  
(A) Sulphur (B) Phosphate  
(C) Nitrogen (D) Manganese

Cod

Code-03

12

119. Arrangement of soil particles is referred to as:  
(A) Soil structure (B) Soil texture  
(C) Soil aggregate stability (D) Bulk density
120. Buffering capacity of soil means resistance to a change in:  
(A) Soil microbial activity (B) Soil aeration  
(C) Soil pH (D) Water saturation
121. Diphenylamine is an indicator, which is used for determination of:  
(A) Phosphorus (B) Organic carbon  
(C) Micronutrients (D) Calcium
122. Eluviations refers to:  
(A) Removal of clay from above horizons to lower horizons  
(B) Removal of clay and sesquioxide from above horizons to lower horizons  
(C) Removal of soluble salts from above horizons to lower horizons  
(D) Accumulation of clay and sesquioxides on the surface layer
123. Which one of the following fractions of organic matter is comparatively resistant to microbial degradation?  
(A) Cellulose (B) Protein  
(C) Lignin (D) Hemicellulose
124. In acid soils phosphorus is fixed as:  
(A) Fe and Al-phosphate (B) Ca – phosphate  
(C) Hydroxy apatite (D) Organic-phosphate
125. Soils of desert lands are known as:  
(A) Alfisols (B) Mollisols  
(C) Spodosols (D) Aridisols
126. Neutral normal ammonium acetate is used for extraction of:  
(A) Potassium (B) Nitrate  
(C) Chloride (D) Sulphur
127. Which of the following is the amorphous clay mineral?  
(A) Kaolinite (B) Muscovite  
(C) Vermiculite (D) Allophane
128. The phosphatic fertilizer most suitable for calcareous soil is:  
(A) Single superphosphate (B) Dicalcium phosphate  
(C) Diammonium phosphate (D) Rock phosphate

129. Cotton belongs to the family of:  
(A) Cruciferae (B) Anacardiaceae  
(C) Malvaceae (D) Solanaceae
130. Which of the following amino acid accumulates under water stress condition in plants?  
(A) Proline (B) Tyrosine  
(C) Glycine (D) All of the above
131. 'Hidden hunger' means:  
(A) Deficiency symptoms are seen when the nutrient is deficient  
(B) Severe yield reduction may occur without appearance of deficiency symptoms  
(C) The nutrient is not deficient but apparently seems to be deficient  
(D) Visual deficiency symptoms are suppressed by other elements
132. Absorption of ions in plants occurring with the aid of metabolic energy is termed as:  
(A) Passive absorption (B) Active absorption  
(C) Deffusive absorption (D) Mass flow absorption
133. 'Aeolian' deposits are formed by the transportation of materials through:  
(A) Running water (B) Wind  
(C) Sea (D) Ice
134. Molasses is a byproduct of which industry?  
(A) Textile industry (B) Sugar industry  
(C) Tanning industry (D) Paper industry
135. Ringelmann Chart is used for measuring:  
(A) Relative humidity (B) Odour intensity  
(C) Smoke density (D) Movement of pollutants
136. The bioindicator organism for the fecal contamination of water is:  
(A) *Bacillus sp.* (B) *Clostridium sp.*  
(C) Algae (D) *E.coli*
137. Site of oxidative electron transport in cell is:  
(A) Mitochondria (B) Ribosome  
(C) Nucleus (D) Chloroplast
138. Which one is essential for synthesis of auxin?  
(A) Zinc (B) Sulphur  
(C) Potassium (D) Phosphorus

Cod

Code-03

14

139. Golden rice is rich in:  
(A) Vitamin A (B) Vitamin B  
(C) Vitamin C (D) Vitamin D
140. A chemical bond formed between two atoms by sharing an electron is:  
(A) Ionic bond (B) Hydrogen bond  
(C) Covalent bond (D) Vander wall bond
141. Arrow is the inflorescence of which crop?  
(A) Sugarcane (B) Maize  
(C) Wheat (D) Rice
142. Which type of clouds can cause rainfall of highest intensity?  
(A) Stratus (B) Cirrus  
(C) Nimbus (D) Cumulonimbus
143. Lady bird beetle is a biological control of what?  
(A) Aphids and spider mite (B) Insects  
(C) Red ants (D) Caterpillars and beetles
144. Which is a metalloid that is very toxic to organisms?  
(A) Arsenic (B) Chromium  
(C) Mercury (D) Cadmium
145. What is responsible for bread making quality of wheat?  
(A) Gluten (B) Amylose  
(C) Amylopectin (D) Lysine
146. Major greenhouse gases based on their contribution to global warming are:  
(A)  $N_2O > CH_4 > O_3 > CO_2$  (B)  $CH_4 > CO_2 > O_3 > N_2O$   
(C)  $O_3 > N_2O > CH_4 > CO_2$  (D)  $CO_2 > CH_4 > O_3 > N_2O$
147. Phosphatic fertilizers are known to contain contaminants like:  
(A) Copper and Chromium (B) Iron and Aluminum  
(C) Arsenic and Mercury (D) Cadmium and Fluoride
148. Which one of the following biofertilizer helps in phosphorus nutrition?  
(A) *Azotobacter sp.* (B) *Rhizobium japonicum*  
(C) *Nostoc sp.* (D) *Bacillus megaterium*
149. "Mridaparikshak", a MINILAB for soil testing is developed by:  
(A) ICAR-IISS, Bhopal (B) ICAR-IARI, New Delhi  
(C) ICAR-CAZRI, Jodhpur (D) ICAR-CRIDA, Hyderabad

150. "Biochar" is used for:
- |  |                                |
|--|--------------------------------|
| (A) Slow release fertilizer.           | (B) Carbon sequestration       |
| (C) Bio-fertilizer for $N_2$ -fixation | (D) Ameliorant for Alkali Soil |

Cross matching type question (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

151. Match the instruments used in specific analysis/determination:
- |                        |                          |
|------------------------|--------------------------|
| (i) pH meter           | (A) Micronutrients       |
| (ii) EC bridge         | (B) Phosphorus           |
| (iii) Flame photometer | (C) Specific conductance |
| (iv) Spectrophotometer | (D) Active acidity       |
| (v) AAS                | (E) Na and K             |
152. Match the following Institutes with their Head quarters:
- |                 |               |
|-----------------|---------------|
| (i) ICAR-IISS   | (A) Hyderabad |
| (ii) ICAR-IASRI | (B) Bangalore |
| (iii) ICAR-IIHR | (C) New Delhi |
| (iv) ICAR-CRIDA | (D) Jodhpur   |
| (v) ICAR-CAZRI  | (E) Bhopal    |
153. Match the N-fertilizers with their nutrient content:
- |                           |         |
|---------------------------|---------|
| (i) Urea                  | (A) 33% |
| (ii) Ammonium sulphate    | (B) 82% |
| (iii) Ammonium nitrate    | (C) 21% |
| (iv) Diammonium phosphate | (D) 46% |
| (v) Anhydrous ammonia     | (E) 18% |
154. Match the following:
- |                        |                           |
|------------------------|---------------------------|
| (i) Primary mineral    | (A) Mica                  |
| (ii) Secondary mineral | (B) Metamorphic rock      |
| (iii) Silica           | (C) Greyish tinge to soil |
| (iv) Limestone         | (D) Gypsum                |
| (v) Marble             | (E) Sedimentary rock      |
155. Match the following:
- |                                   |                                       |
|-----------------------------------|---------------------------------------|
| (i) Land Coordinates              | (A) Mineralization and immobilization |
| (ii) Land use                     | (B) Hilly areas                       |
| (iii) C:N ratios                  | (C) Soil capability classification    |
| (iv) Land slides and soil erosion | (D) Environmental                     |
| (v) Soil and water pollution      | (E) GPS                               |

156. Match the following:
- |  |                                      |
|--|--------------------------------------|
| (i) Legume-Rhizobium symbiosis             | (A) <i>Sesbania rostrata</i>         |
| (ii) Non-legume <i>Frankia</i> symbiosis   | (B) Rice field                       |
| (iii) <i>Azolla-Anabaena</i> symbiosis     | (C) Fish                             |
| (iv) Non-specific associative $N_2$ fixers | (D) <i>Alnus, Myrica</i>             |
| (v) Phytoplankton                          | (E) <i>Azospirillum, Azotobacter</i> |
157. Match the following:
- |                       |                       |
|-----------------------|-----------------------|
| (i) Potentiometry     | (A) Sodium            |
| (ii) Colorimeter      | (B) Phosphorus        |
| (iii) Conductometry   | (C) Volatile compound |
| (iv) Flame Photometry | (D) pH                |
| (v) Gas Chromatograph | (E) EC                |
158. Match the following:
- |                             |                     |
|-----------------------------|---------------------|
| (i) Daincha                 | (A) Moisture Stress |
| (ii) Rice                   | (B) Weed            |
| (iii) <i>Phalaris minor</i> | (C) Oil seed        |
| (iv) Ragi                   | (D) Dapog nursery   |
| (v) <i>Brassica rapa</i>    | (E) Green manuring  |
159. Match the following:
- |                        |             |
|------------------------|-------------|
| (i) Igneous rock       | (A) Granite |
| (ii) Mineral           | (B) Illite  |
| (iii) Metamorphic rock | (C) Shale   |
| (iv) Clay              | (D) Gneiss  |
| (v) Sedimentary rock   | (E) Diamond |
160. Match the following:
- |                    |                    |
|--------------------|--------------------|
| (i) Poultry manure | (A) Calcium        |
| (ii) Pyrites       | (B) Biofertilizer  |
| (iii) Gypsum       | (C) Carbon         |
| (iv) Compost       | (D) Organic manure |
| (v) <i>Azolla</i>  | (E) Sulphur        |