1. Which among the following is the classic material for the load bearing structures of agricultural machinery?

   (A) Structural Steel (B) Alloyed Steel
   (C) Cast materials (D) Light Alloys

2. When an electric current is passed through a piezoelectric material, it experiences

   (A) Significant reduction in size (B) Drastic reduction in size
   (C) Drastic increase in size (D) Significant increase in size

3. The essential characteristic for cutting materials to withstand the heavy conditions is

   (A) Hardness (B) Toughness
   (C) Wear Resistance (D) All the above

4. ISO Code M in Carbide tools represent

   (A) For machining long and short chip forming ferrous materials like Stainless Steel
   (B) For machining long chip forming common material like plain carbon and low alloy steel
   (C) For machining short chipping ferrous and non ferrous materials like cast iron, brass etc.
   (D) None of the above

5. The merit of good Plant Layout is

   (A) Work in process inventory is more (B) Production control is less
   (C) Manufacturing time is less (D) Requiring more floor area

6. Which one is not the correct match?

   (A) Bending – Die (B) Welding – Arc
   (C) Straightening – Hammering (D) Shearing – Drill

7. Drought Prone Area Programme and Flood Prone Programme are introduced in

   (A) Second Five Year Plan (B) Third Five Year Plan
   (C) Fourth Five Year Plan (D) Fifth Five Year Plan

8. Land Slides and slumps are examples of

   (A) Glacial Erosion (B) Gravitational Erosion
   (C) Wind Erosion (D) Water Erosion

9. An earth embankment, constructed across the slope the control runoff and minimize soil erosion is known as

(A) Terrace (B) Mulch
(C) Rill (D) Sheet

10. The height of any bund depends on

(A) Slope of the land (B) Spacing of the bund
(C) Intensity of rainfall (D) All the above

11. Construction of water resources project such as dam can also result into which of the following?

(A) Famine and Drought (B) Flood Control
(C) Water Scarcity (D) None of the above

12. What do you call a component of spillway that reduces erosion at the riverbed by converting storm water runoff into sheet flow?

(A) Exit Channel (B) Energy dissipator
(C) Outlet (D) Sluice

13. The storage of water below the bottom of the lowest sluice way in a reservoir is called

(A) Dead Storage (B) Surcharge Storage
(C) Useful Storage (D) Live Storage

14. The example of non-rigid dam

(A) Arch Dam (B) Timber Dam
(C) Steel Dam (D) Rockfill Dam

15. The stilt load in the stream does not depend on

(A) Nature of the soil in the catchment area
(B) Topography of the catchment area
(C) Intensity of rainfall
(D) Alignment of dam

16. Which of the following types of drinking water is obtained by the reclamation process?

(A) Groundwater (B) Infiltrated water
(C) Desalinated water (D) Surface water

17. The field capacity of a soil is 25%, its permanent wilting point is 15% and specific dry unit weight is 1.5 g/cc. If the depth of the root zone of a crop is 80 cm, the storage capacity of the soil is

(A) 08 cm (B) 10 cm
(C) 12 cm (D) 14 cm

18. The minimum furrow grade to assure surface drainage is

(A) 0.09 % (B) 0.02 %
(C) 0.07 % (D) 0.05 %

19. Which of the following is known as "feeding bottle technique"?

(A) Drip Irrigation (B) Sprinkler Irrigation
(C) Furrow Method (D) None of the above

20. Which method is suitable for lowland rice and jute?

(A) Drip Method (B) Canal Method
(C) Flooding Method (D) None of the above

21. Which among the following is not Air Drying in Dairy Industry?

(A) Fixed Tray Drying (B) Moving Tray Drying
(C) Vacuum Drum Drying (D) Pneumatic Drying

22. HTST pasteurization is

(A) 72^{o}C for 15 – 20 Seconds (B) 63^{o}C for 30 minutes
(C) 135^{o}C for 2 – 4 second (D) 56^{o}C for 15 minutes

23. Water adulteration in milk can be detected by _____ instrument.

(A) Refractometer (B) Hygrometer
(C) Lactometer (D) Homogeniser

24. Gerber Test is used to detect

(A) Water in Milk (B) Acidity in Milk
(C) SNF % in Milk (D) Fat % in Milk

25. Example of soft cheese is

(A) Cheddar (B) Swiss
(C) Brick (D) Cottage

26. Which among the following is the correct flow chart preparation of potato chips?

(A) Peeling – slicing – deep frying – blanching – fat removal – salting
(B) Peeling – slicing –blanching - deep frying – fat removal – salting
(C) Peeling – slicing – deep frying – blanching– salting – fat removal
(D) Peeling – deep frying – blanching – slicing – fat removal – salting

27. The length of Engineers chain is

(A) 33 feet (B) 66 feet
(C) 99 feet (D) 100 feet

28. Sloping inward bench terraces are effective in

(A) Heavy rainfall areas (B) Medium rainfall areas
(C) Low rainfall areas (D) Drought prone areas

29. Tractor operation in a lower gear causes

(A) Less Torque (B) More Pull
(C) Less Pull (D) More Torque

30. The common type of battery used in IC Engines is

(A) Lead acid Battery (B) Dry Battery
(C) Both (A) and (B) (D) None of the above

31. The velocity required to operate wind mill is more than

(A) 5 miles per hour (B) 5 KM per hour
(C) 10 miles per hour (D) 10 KM per hour

32. The power tillage is most suitable for

(A) Stationary operation (B) Deep ploughing
(C) Rotary operation (D) All are correct

33. The shovel of cultivator is made up of

(A) Mild Steel (B) Cast Iron
(C) Chilled Cast Iron (D) Soft Centre Steel

34. The gas holder in floating gas type biogas plant is

(A) Inverted drum (B) Conical
(C) Spherical (D) None of the above

35. Insulated metal of solar cooker is

(A) Black from outside
(B) Black from inside
(C) Black from out and inside
(D) White from out and inside

36. A group of Solar cell is

(A) Solar Cap
(B) Solar Panel
(C) Solar Node
(D) All are correct

37. Biogas is a mixture of

(A) Ethane and Methane
(B) Methane and Carbon monoxide
(C) Ethane and Carbon monoxide
(D) Methane and Carbon dioxide

38. In sun drying, the relative humidity (per day) of grain under favourable conditions is reduced by

(A) 1 – 2%
(B) 3 – 4%
(C) 5 – 6 %
(D) 7 – 8%

39. Compared to raw rice, par boiled rice needs

(A) More Polishing
(B) Less Polishing
(C) No polishing
(D) None of the above

40. Percentage of Bran in Paddy is

(A) 1.30 %
(B) 2.40 %
(C) 3.50 %
(D) 4.60 %

41. The properties of aquifer may be expressed in terms of

(A) Hydraulic Conductivity
(B) Transmissibility
(C) Specific Yield
(D) All are correct

42. The viscosity is measured in

(A) Poise
(B) Dynes
(C) Newton
(D) Joule

43. The indicator plant used for determining the permanent wilting percentage is

(A) Wheat
(B) Safflower
(C) Sun flower
(D) Paddy

44. Of the following, which is the form of precipitation?

(A) Hail (B) Snowfall
(C) Rain (D) All the above

45. Lysimeter is used to measure

(A) Atmospheric pressure (B) Evaporation
(C) Evapotranspiration (D) All the above

46. Flow Mass curve is an integral curve of

(A) Flow duration curve (B) S Curve
(C) Hyetograph (D) Hydrograph

47. The erosion caused by concentration flow in small channels is called

(A) Gully Erosion (B) Rill Erosion
(C) Torrent Erosion (D) All the above

48. Shelter beds are constructed by

(A) One Row (B) Two Row
(C) More than two rows (D) None of these

49. The tension of water at saturation capacity is almost

(A) 0 (B) 1
(C) 10 (D) 100

50. The upper strata of the earth where the openings are completely filled with water are

(A) Zone of fracture (B) Zone of aeration
(C) Zone of saturation (D) None of these

51. Which of the following is not igneous rocks?

(A) Granite (B) Basalt
(C) Dibase (D) Quartzite

52. Which of the following is not a high salt tolerant crop?

(A) Sugarcane (B) Barley
(C) Sugarbeet (D) Maize

53. _____ is not a secondary major nutrient.

(A) S (B) P
(C) Ca (D) Mg

54. The element which is mobile in soil is

(A) Ca (B) Mg
(C) K (D) N

55. Example for Bio-fertilizer is

(A) Blue-green algae (B) Compost
(C) Green manure (D) Farm yard manure

56. To check nitrification, nitrification inhibitors are most useful in

(A) Maize (B) Cotton
(C) Paddy (D) None of these

57. The value above _____ ppm is associated with Boron Toxicity.

(A) 400 (B) 350
(C) 300 (D) 250

58. The soils of _____ Zones can supply adequate potassium for many years under irrigations

(A) Temperate (B) Humid
(C) Arid (D) Sub – tropical

59. The texture of surface soil or surface horizon is called

(A) Soil Type (B) Soil Variant
(C) Soil phase (D) Soil moisture

60. Saline soil can be managed by

(A) Addition of Lime (B) Addition of Pyrite
(C) Addition of Gypsum (D) Leaching of Salts

61. Soil solum includes

(A) A horizon (B) B horizon
(C) (A) and (B) horizon (D) None of the above

62. The natural soil aggregates are called as

(A) Concretion (B) Mottling
(C) Peds (D) Soil Separates

63. The soil having higher buffering capacity is

(A) Loamy Soil (B) Loamy Sand
(C) Sandy Soil (D) Clay soil

64. The diagnostic horizons are called

(A) Epipedon (B) Pedon
(C) Polypedon (D) All of them

65. The bacteria responsible for fixation of nitrogen in soyabean is

(A) Rhyzobium phaseoil (B) Rhyzobium leguminoserum
(C) Rhyzobium glycicum (D) Rhyzobium japonicum

66. Tarai Soils are high in

(A) Sodium (B) Calcium
(C) Iron (D) Organic matter

67. Soil air contains _____ % of Carbon dioxide.

(A) 0.02 (B) 0.25
(C) 2.00 (D) 3.00

68. Maximum absorption of water by roots takes place through the

(A) Zone of Elongation (B) Root Hair
(C) Zone of maturation (D) Root Cao

69. The father of pedology

(A) KD Glinka (B) CF Marbut
(C) VV Dokuchaev (D) DG Vilensky

70. Fungal population is comparatively high in soil having

(A) Alkaline pH (B) Neutral pH
(C) Acidic pH (D) None of the above

71. Chlorosis refers to the

(A) Yellowing of the leaf tissues
(B) Death of Leaf tissues
(C) Burning of Leaf tissues
(D) Reddish brown development in Leaf tissues

72. A soil absorbs _____ % of incoming solar radiation.

(A) 5 (B) 10
(C) 15 (D) 20

73. Application of nitrogen in pulses at the time of planting is known as

(A) Synergistic dose (B) Basic Dose
(C) Starter Dose (D) Additional Dose

74. Chemical Weathering governs mostly by the process

(A) Hydration (B) Hydrolysis
(C) Solution (D) All the above

75. In acid soils, the availability of Fe is

(A) High (B) Medium
(C) Low (D) Not traceable

76. Family of groundnut is

(A) Leguminosae (B) Compositae
(C) Poaceae (D) Cruifereae

77. The highest production of mustard is contributed by the state

(A) Gujarat (B) Uttar Pradesh
(C) Rajasthan (D) Madhya Pradesh

78. Khaira disease in rice is caused by deficiency of

(A) Zinc (B) Silicon
(C) Iron (D) Hydrogen Sulfide

79. Triple response is associated with

(A) Cytokinin (B) Auxin
(C) Ethylene (D) GA3

80. The best suited soil for potato cultivation is

(A) Clay loam (B) Silky loam
(C) Sandy Loam (D) Loamy sand

81. Directorate of Wheat Research is located in

(A) Panipat (B) Karnal
(C) Chandigarh (D) Dehradun

82. Who is the father of agronomy?

(A) Pascal (B) La-Flitze
(C) Jethrotull (D) Peter Decresenzi

83. First KVK was established in

(A) Puducherry (B) Rajasthan
(C) Uttar Pradesh (D) Himachal Pradesh

84. Blue Revolution is related with

(A) Floriculture (B) Pisciculture
(C) Horticulture (D) Sericulture

85. The first state in India to adopt Panchayat Raj system.

(A) Madhya Pradesh (B) Punjab
(C) Rajasthan (D) Karnataka

86. Kyoto Protocol is related to

(A) Green House Gas minimization (B) Disease Control
(C) Pest Control (D) Decrease of methane in atmosphere

87. _____ is basic unit of society.

(A) Community (B) Village
(C) Family (D) None of the above

88. Which is not a projected visual aid?

(A) Over Head Projector (B) Slide
(C) Power Point Slide (D) Poster

89. Market containing single buyer of product

(A) Monopoly (B) Oligopoly
(C) Monopsony (D) Oligopsony

90. Kharif crops are grown in

(A) June – July (B) October – November
(C) March – June (D) Throughout the year

91. Green Revolution in India was started in

(A) 1945 (B) 1966
(C) 1987 (D) 2010

92. Area sown more than once in an agricultural year plus net sown area is known as

(A) Green Cover (B) Waste Land
(C) Gross Cropped area (D) Forest Cover

93. Nationalization of banks was carried out on

(A) 19th June, 1970 (B) 19th July, 1969
(C) 2nd October, 1969 (D) 2nd October, 1970

94. Crop farming and milk production is an example of

(A) Competitive enterprise (B) Supplementary enterprise
(C) Complementary enterprise (D) None of the above

95. Elasticity cannot be explained by

(A) Regression (B) OLS
(C) GLS (D) Correlation

96. The amount of output that exist in the market is known as

(A) Stock (B) Surplus
(C) Supply (D) None of the above

97. Which of the following is an example of working capital?

(A) Tools (B) Machine
(C) Building (D) Raw Materials

98. The largest producer of milk in the world is

(A) China (B) Argentina
(C) Netherlands (D) India

99. In regulated markets, _____ are regulated.

(A) Prices (B) Farmers behaviour
(C) Traders behaviour (D) Marketing practices

100. When the value of good is expressed in terms of money, it is known as

(A) Value (B) Price
(C) Cost (D) MRP

101. If the intercept on a vertical staff is observed as 0.75 m from a tachometer, the horizontal distance between tachometer and staff

(A) 0.75 m (B) 25 m
(C) 50 m (D) 75 m

102. A series of closely spaced contour lines represents a

(A) Plane Surface (B) Uniform Slope
(C) Steep Slope (D) Gentle Slope

103. The line of sight is kept as high above ground surface as possible to minimize the error in the observed angles due to

(A) Shimmering (B) Horizontal Reflection
(C) Vertical Reflection (D) Both Shimmering and Horizontal reflection

104. Overturing of vehicles on a curve can be avoided by using

(A) Compound curve (B) Vertical Curve
(C) Reverse Curve (D) Transition Curve

105. Chain surveying is well adopted for

(A) Small areas in open ground (B) Small areas with crowded details
(C) Large areas with simple details (D) Large areas with difficult details

106. In geodetic surveys higher accuracy is achieved, if

(A) Curvature of the earth surface is ignored
(B) Curvature of the earth surface is taken into account
(C) Angles between the curved lines are treated as plane angles
(D) None of the above

107. Surveys which are carried out to depict mountains, rivers, water bodies, wooded areas and other cultural details are known as

(A) Cadastral surveys
(B) City Surveys
(C) Topographical surveys
(D) Guide map Surveys

108. The most reliable method of plotting a theodolite traverse, is

(A) By consecutive co-ordinates of each station
(B) By independent co-ordinates of each station
(C) By plotting included angles and scaling off each traverse leg
(D) By the tangent method of plotting

109. The whole circle bearing of a line is 290^{o}. Its reduced bearing is

(A) N 20^{o} E
(B) N 20^{o} W
(C) N 70^{o} W
(D) S 70^{o} E

110. Remote sensing techniques make use of the properties of ———————— emitted, reflected or diffracted by the sensed objects.

(A) Electric waves
(B) Sound waves
(C) Electro magnetic waves
(D) Wind waves

111. The refractive index of the ocean water

(A) Increases with salinity
(B) Increases with temperature
(C) Decreases with salinity
(D) Decreases with temperature

112. The code based GPS receivers are generally used for

(A) Vehicle Tracking
(B) Land navigation
(C) Trans movement
(D) All of these

113. Freon group of refrigerants are

(A) Inflammable (B) Toxic
(C) Non-inflammable and toxic (D) Non toxic and non- inflammable

114. The vapour compressor refrigerator employs the following cycle

(A) Rankine (B) Carnot
(C) Reversed Rankine (D) Reversed Carnot

115. A human body feels comfortable when the heat produced by the metabolism of human body is equal to the

(A) Heat dissipated to the surroundings (B) Heat stored in the human body
(C) Sum of (A) and (B) (D) Difference between (A) and (B)

116. When the air is passed through an insulated chamber having sprays of water maintained at a temperature higher than the dew point temperature of entering air but lower than its dry bulb temperature, then the air is said to be

(A) Cooled and humidified (B) Cooled and dehumidified
(C) Heated and humidified (D) Heated and dehumidified

117. The temperature of ammonia after compression in a vapour compression system is

(A) 20– 50^{o} C (B) 50 - 70^{o} C
(C) 70 -110^{o} C (D) None of these

118. One tonne of refrigeration (1TR) means that the heat moving capacity is

(A) 105 KJ/Min (B) 210 KJ/Min
(C) 420 KJ/Min (D) 620 KJ/Min

119. In which of the following cases provision of fins on a given heat transfer surface will be more effective?

(A) Fewer but thin fins (B) Large number of thin fins
(C) Large number of thick fins (D) Fewer but thick fins

120. Which of the following is having highest value of overall heat transfer coefficient?

(A) Steam (B) Steam condensers
(C) Feed Water heaters (D) Alcohol condensers

121. For a cylindrical rod with uniformly distributed heat sources, the thermal gradient at half the radius location will be

(A) One half (B) One fourth
(C) Four times (D) Twice

122. How many times do we have to calculate for Nusselt Number in a Double Pipe heat Exchanger?

(A) 6 (B) 2
(C) 4 (D) 9

123. ———————— drying would be chosen whenever the production rate is small (under 200 kg/hr)

(A) Rotary dryer (B) Drum dryer
(C) Continuous (D) Batch

124. Which one of the following is not an advantage of forced convection boiling?

(A) Very cheap to operate (B) Positive Circulation
(C) High heat transfer coefficient (D) Low fouling and scaling

125. Which one of the following method removes water molecule by changing its chemical composition?

(A) De- moisturizing (B) Dewatering
(C) Dehydration (D) Drying

126. The tractor drawn rotavator is specially designed for which purpose

(A) Primary tillage implements (B) Secondary tillage implements
(C) Mulching Purpose (D) Wetland cultivation in paddy crops

127. Which of the following is not a secondary tillage implement?

(A) Hoe (B) Harrow
(C) Meston plough (D) Cultivators

128. Main objective of puddling in paddy is to

(A) Destroy insects – pests (B) Create an impermeable layer in the soil
(C) Mix the fertilizer in the soil (D) All of the above

129. The diameter of feed roller of a conveyor type power chaff cutter is 100 mm and they are rotating at 100 rpm for cutting the dry fodder. The effective length of each feed roller is 0.25 m and average clearance between them is 0.015 mm. The compression density while passing through feed roller is 250 kg/m^3. What will be the capacity of the chaff cutter?

(A) 1. 47 tonnes/hour
(B) 2. 47 tonnes/hour
(C) 3. 47 tonnes/hour
(D) 4. 47 tonnes/hour

130. Helical gear is used for transmitting the power between two

(A) Parallel Shafts
(B) Inclined Shafts
(C) Shafts located at long distance
(D) Shafts at 90^o

131. Perfect velocity ratio is obtained in

(A) Gear drives
(B) V-belts
(C) Belts
(D) Chain drive

132. In which rivet joint the plates are kept in the same plane?

(A) Lap Joint
(B) Wood Screws
(C) Butt Joints
(D) Cap Screws

133. Which of the following is not a type of chain?

(A) Roller
(B) Hook Link
(C) Pintle
(D) Bevel

134. The phenomenon caused in a governor in which the speed of the engines fluctuates continuously above and below the mean speed

(A) Firing Interval
(B) Sensitiveness of Governor
(C) Governor hunting
(D) Air-supply measurement

135. Engines of different cylinder dimensions, power and speed can be compared on the basis of

(A) Maximum Pressure
(B) Fuel Consumption
(C) Mean effective pressure
(D) Unit power

136. The lowest part of a crankcase is commonly known as

(A) Dry liner (B) Wet liner
(C) Skirt (D) Oil Pan

137. A fuel contains 84% carbon and 16% hydrogen by mass. The necessary air-fuel ration for chemically correct combustion is

(A) 10.42:1 (B) 15.30:1
(C) 20.36:1 (D) 31.08:1

138. The function of pistol pin in IC Engine is to

(A) Absorb the cylinder heat (B) Join the connecting rod to the piston
(C) Increase the speed (D) Joint wheel and connecting rod

139. What is the detachable portion of engine, which covers the upper end of the cylinder known as

(A) Cylinder head (B) Ignition cell
(C) Combustion cell (D) Manifold

140. Stress is defined as

(A) Restoring force per unit area (B) Passive force on all units
(C) Active force per unit area (D) All of the above

141. The depth of normal ploughing is

(A) 10 cm (B) 15 cm
(C) 20 cm (D) 25 cm

142. What is the degree of crank rotation during the completion of a four stroke cycle?

(A) 90^{o} (B) 180^{o}
(C) 270^{o} (D) 360^{o}

143. What is the firing order of a four cylinder engines?

(A) 1 – 2 – 3 – 4 (B) 1 – 3 – 2 – 4
(C) 1 – 3 – 4 – 2 (D) 4 – 3 – 2 – 1

144. What is the efficiency of compressed charge engine?

(A) 40% (B) 20%
(C) 10% (D) 30%

145. In a four stroke engine, the working cycle is completed in

(A) One revolution of crankshaft (B) Two revolution of crankshaft
(C) Three revolution of crankshaft (D) Four revolution of crankshaft

146. What is the HP power required for power sprayer?

(A) 1 – 2 HP (B) 10 – 12 HP
(C) 3 – 5 HP (D) 5 – 7 HP

147. A medium size bullock can develop

(A) 1.00 to 1.25 HP (B) 1.25 – 1. 50 HP
(C) 0.75 – 1.00 HP (D) 0.50 – 0.75 HP

148. Piston of an engine is made of

(A) Cast Iron (B) Aluminum Alloy
(C) Nickel Iron Alloy (D) All are correct

149. The fuel used in EC engines for generation of power is

(A) Petrol (B) Diesel
(C) Kerosene (D) Steam

150. The API gravity of water is

(A) 10 (B) 15
(C) 20 (D) 25

151. Blade surface of sail type windmill can be made from

(A) Cloth (B) Nylon
(C) Plastic (D) All the above

152. The breeder ratio for a breeder type reactor

(A) Is less than unity (B) Is unity
(C) Is more than unity (D) Tends to infinity

153. Which of the following is a non-renewable resource?

(A) Coal (B) Solar
(C) Geothermal (D) Tidal

154. The source of non-conventional energy is

(A) Natural Gas (B) Coal
(C) Oil (D) Wind

155. The major contributors of Acid Rain

(A) Sulphur and Nitrogen
(B) Sulphur and Nitrogen dioxide
(C) Nitrogen and Sulphur dioxide
(D) Nitrogen dioxide and Sulphur dioxide

156. Wind Plants affect the habitat of

(A) Tigers (B) Whales
(C) Fishes (D) Birds and bats

157. The cleanest fossil fuel is

(A) Natural Gas (B) Petrol
(C) Petroleum (D) Coal

158. The potential water pollutant from a geothermal plant

(A) Carbon (B) Silicon
(C) Sulphur (D) Nitrogen

159. By which process, CO_2 can be removed from the atmosphere?

(A) Pyrolysis (B) Filtration
(C) Magnetohydronomics (D) Photosynthesis

160. What is TDI stands for in the thermal pollution field?

(A) Turbochanger Direct Injection (B) Toluene Di Isocyanate
(C) Thermal Discharge Index (D) Thermal energy Discharge Integration

161. Type of Wind Turbine blade cross section is

(A) Air foiled cross section
(B) Penta hedral cross section
(C) Radar cross section
(D) Turbo cross section

162. The base material for distemper is

(A) Lime
(B) Chalk
(C) Cement Wash
(D) Lime Putty

163. Hygrograph is the graphical representation of

(A) Runoff rate versus time
(B) Infiltration rate versus time
(C) Rainfall rate versus time
(D) None of the above

164. Watershed Planning and Management requires

(A) Land Use Data
(B) Socio-economic Data
(C) Hydrologic Data
(D) All of the above

165. If the radius of raindrop is doubles, the kinetic energy will be increased by

(A) 2 times
(B) 4 times
(C) 8 times
(D) 16 times

166. Water gas is a mixture of

(A) Carbon Monoxide and hydrogen
(B) Carbon di oxide and Oxygen
(C) Oxygen, hydrogen and Carbon dioxide
(D) Water with any gas

167. Which of the following does not constitute 90% of dry weight of food?

(A) Carbohydrates
(B) Proteins
(C) Fats
(D) Fibres

168. Pulverized coal is

(A) Ash free coal
(B) Powdered Coal
(C) Non Smoking coal
(D) Coal which burns for a long time

169. Reflecting Mirrors used for harnessing solar energy are called

(A) Mantle (B) Ponds
(C) Diffusers (D) Heliostats

170. The mass of water vapour per unit mass of dry air is

(A) Relative humidity (B) Specific humidity
(C) Percentage humidity (D) Equilibrium humidity

171. The type of induction motor having variable speed characteristics is

(A) Split Phase (B) Capacitor
(C) Universal (D) Three Phase

172. Critical Pressure of water is

(A) 113.8 kg/cm^2 (B) 183.8 kg/cm^2
(C) 213.8 kg/cm^2 (D) 283.8 kg/cm^2

173. The value of Betz's constant

(A) 9/25 (B) 16/27
(C) 25/81 (D) 11/49

174. The ratio between the molecular diffusivity of momentum to the diffusivity of heat is

(A) Nusselt Number (B) Peclet number
(C) Rayleigh Number (D) Prandtl number

175. Hulling percentage of rice is

(A) 50-52% (B) 60-62%
(C) 70-72% (D) 80-82%

176. Leakage factor has the dimension of

(A) Resistance (B) Velocity
(C) Length (D) Time

177. Porosity of Clay soil ranges between

(A) 40 – 50% (B) 50 – 60%
(C) 60 – 70% (D) 70 – 80%

178. Ditch Conduit formula is used for

(A) Sand bearing test (B) Grade of tile drain
(C) Size of tile drain (D) Loads on drain pipe

179. The removal of water from a substance by direct sublimation from the frozen state to the vapour state is known as

(A) Mechanical drying (B) Microwave drying
(C) Freeze drying (D) Solar drying

180. Commutator in DC generator is used for

(A) Collecting of current
(B) Reduce losses
(C) Increase efficiency
(D) Convert AC armature current into DC

181. Grassed waterways are used as

(A) Diversion channels (B) Outlets
(C) Inlet to terrace system (D) All are correct

182. The main objective of level bench terrace is

(A) Reduce run off (B) Transport of soil particles
(C) Conserve water and control erosion (D) Make steeply land cultivable

183. Choke control the amounts of

(A) Fuel (B) Water
(C) Air (D) All the above

184. Ring lubrication system is generally used for lubrication of

(A) Vertical Bearings (B) Horizontal Bearings
(C) Inclined Bearings (D) None of these

185. Evaporating cooling system is used for cooling of

(A) Steam Engines (B) Aircraft engines
(C) Industrial Engines (D) Railway engines

186. Rainfall intensity is the ratio of

(A) Time to rainfall amount (B) Rainfall amount to time
(C) Rainfall amount to velocity (D) Velocity to rainfall amount

187. Granular structured soil is

(A) Least credible (B) More Erodible
(C) Less Erodible (D) None of these

188. Throttle system controls the

(A) Amount of air fuel mixture (B) Engine Load
(C) Both (A) and (B) (D) None of the above

189. The main shaft of an engine is also called

(A) Lay Shaft (B) Input Shaft
(C) Output Shaft (D) Counter Shaft

190. Mass density increases as

(A) Pressure increase (B) Pressure decrease
(C) Temperature increase (D) Temperature decrease

191. Coolant pump is

(A) Gear pump (B) Centrifugal Pump
(C) Vane type (D) All are correct

192. Relative movement of wheel in direction of travel for given distance under load and no load condition is known as

(A) Wheel Slip (B) Tractive efficiency
(C) Coefficient of traction (D) Coefficient of rolling resistance

193. Jointer and Coulter are parts of

(A) Disc plough (B) Harrow Plough
(C) Indigenous plough (D) MB Plough

194. The forward end of cutting edge that actually penetrates into the soil and cuts the soil is

(A) Cutting edge (B) Wind of share
(C) Share Point (D) Gunnel of share

195. A ridger is used for

(A) Mulching (B) Making Channel
(C) Seed Bed preparation (D) Clod crushing

196. Animal drawn patela is :

(A) Clod Crusher (B) Clod Leveller
(C) Clod Expander (D) None of these

197. The purpose of harrowing is

(A) Pulverize soil (B) Destroy weeds
(C) Break clods (D) All are correct

198. For sowing mustard seeds, the most suitable seed drill is

(A) Zero till drill (B) Pneumatic seed drill
(C) Plain seed drill (D) None of the above

199. In sunlight, the heating rays are

(A) IR Ray (B) UV Ray
(C) Violet Ray (D) Red Ray

200. The optimum C:N ration for maximum microbiological activities is:

(A) 10 : 1 (B) 20 : 1
(C) 30 : 1 (D) 40 : 1

ROUGH WORK

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