

MAGDALINE COLACHING CENTRE (mc²)
AGRICULTURE ENGINEERING PAPER 2(JUNE)

1. The thermal efficiency of diesel engine varies between
 - a. 25-28 %
 - b. 28-32 %
 - c. 32-35%
 - d. 35-38 %**

2. Most commonly used pump in a forced feed lubricating system is
 - a. Positive displacement pump**
 - b. Reciprocating pump
 - c. centrifugal pump
 - d. None of the above

3. Calorific value of petrol
 - a. 10,300 kcal/kg
 - b. 10,550 kcal/kg
 - c. 11,100 kcal/kg**
 - d. 12,000 kcal/kg

4. The lowest temperature at which fuel ceases to flow is known as
 - a. cloud point
 - b. Flash point
 - c. pour point**
 - d. chilled point

5. which engine is used as a portable engine
 - a. Vertical single cylinder high speed**
 - b. Vertical twin cylinder high speed
 - c. Vertical single cylinder low speed
 - d. Vertical twin cylinder low speed

6. Horizontal single cylinder diesel engine has
 - a. Slow
 - b. medium to high speed**
 - c. medium speed
 - d. slow to medium speed

7. Farm power availability of Indian Farms iskW/ha
 - a. 1.52
 - b. 1.73
 - c. 1.85
 - d. 2.02**

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8. Specific fuel consumption of diesel engine is (Kg/KW-hr)

- a. **0.2**
- b. 0.25
- c. 0.27
- d. 0.29

9. Octane Rating is the indication of

- a. Ignition quality
- b. **Knocking effect**
- c. both
- d. None of the above

10. Engine power is indicated by

- a. **BHP**
- b. IHP
- c. FP
- d. all of the above

11. The diesel engine operation is done at

- a. **constant pressure**
- b. constant temperature
- c. constant volume
- d. both a & c

12. The basic engine parts to which all other accessories are attached

- a. **cylinder block**
- b. cylinder
- c. connecting rod
- d. cylinder head

13. The exhaust gases of which engine has higher temperature

- a. Petrol engine
- b. **Diesel engine**
- c. steam engine
- d. None of the above

14. The type of pump used in forced water cooling system of a tractor engine is

- a. Piston
- b. **centrifugal**
- c. gear
- d. vane

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15. Connecting rod of an internal combustion engine is subjected to
- compression only
 - tension only
 - Both compression and tension**
 - torsion only
16. In a fuel property determination, Reid vapour pressure test is used for measuring
- volatility
 - viscosity**
 - Sulphur content
 - carbon residue
17. All internal combustion engines are equipped with
- battery ignition system
 - magneto ignition system**
 - spark ignition system
 - none of the above
18. In a C.I engine the compression pressure inside the cylinder is normally in the range of
- 15-25 kg/cm²
 - 35-45 kg/cm²**
 - 55-65 kg/cm²
 - 70-90 kg/cm²
19. The space that supports the crankshaft in the cylinder block is called as
- camshaft
 - main journal**
 - crank journal
 - piston
20. If BHP= 40 hp and IHP= 60 hp then what will be the mechanical efficiency if FHP= 10
- 25 %
 - 66 %**
 - 16 %
 - 50 %
21. The octane number of commercially available fuel is
- 56
 - 82
 - 92**

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d. 108

22. The counter weights are provided in crankshaft is

- a. **Throughout the length**
- b. Throughout the thickness
- c. throughout the width
- d. both ends

23. In I.C engine thermal efficiency is correlated to its specific consumption

- a. **Inversely proportional**
- b. directly proportional
- c. equal to
- d. not relation

24. The rocker arm is used to actuate the inlet and exhaust valves motion as directed by the

- a. **cam & follower**
- b. crank
- c. crankshaft
- d. connecting rod

25. Indicated horse power during engine idling

- a. equal to BHP
- b. Equal to FHP
- c. **Equal to BHP + FHP**
- d. > BHP

26. In an I.C engine, a drop in a jacket temperature will affect the specific consumption when the engine operates at

- a. **No load**
- b. Light load
- c. medium load
- d. maximum load

27. Differential lock in tractor is used to improve

- a. Lateral stability
- b. Braking performance
- c. Hydraulic lift
- d. **Traction of a wheel**

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28. S.I unit of tractor power

- a. Wp
- b. kW**
- c. kW-h
- d. Newton

29. A star delta starter is used to operate

- a. Diesel engine
- b. Single phase electric motor
- c. Three phase electric motor**
- d. three wheel tractor

30. Caster angle is related to

- a. Drive wheels
- b. steered wheels**
- c. towed wheels
- d. self- propelled wheels

31. The toe-in provided in tractor is approximately

- a. 18-28 mm
- b. 14- 15 mm
- c. 7 to 10 mm**
- d. 2/3 mm

32. The type of starting aid generally used in diesel power tiller is

- a. Glow plug
- b. Thermostat
- c. Decompression lever**
- d. Intake manifold surrounded by exhaust manifold

33. Aspect ratio of tractor tyres is ratio of

- a. section height : rim diameter
- b. section width : rim diameter
- c. section height : section width**
- d. none of the above

34. For transmitting tractor power into useful work which of the following is least efficient

- a. Flywheel
- b. PTO
- c. hydraulic
- d. Drawbar**

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35. While turning differential maintains the tractor stability by deliveringto both wheels.
- a. unequal torque but equal power**
 - b. equal torque but unequal power
 - c. equal torque and equal power
 - d. none of the above
36. What power range of tractor is most commonly used in India (hp)
- a. 10-15
 - b. 25-35
 - c. 30-35
 - d. 30-45**
37. Number of splines on PTO shaft with 540 rpm
- a. 6**
 - b. 21
 - c. 20
 - d. 15
38. Radiator cap on tractor works on
- a. vacuum and pressure**
 - b. force
 - c. temperature
 - d. work
39. Most widely used clutch in power tiller is
- a. Dog clutch**
 - b. Friction clutch
 - c. Rotor clutch
 - d. fluid clutch
40. Gears generally used in transmission box are
- a. Helical and spur gears**
 - b. spur gear only
 - c. helical gear only
 - d. bevel gear
41. The stability of a 4 wheel tractor up a hill can be improved by increasing the
- a. hitch angle
 - b. grade angle
 - c. moment of inertia of entire tractor**
 - d. moment of inertia of drive wheels

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42. Header loss also called as

- a. cutter bar loss**
- b. shoe loss
- c. cylinder loss
- d. rack loss

43. Most commonly used threshing mechanism of the grain combine is

- a. Rasp bar cylinder**
- b. spike tooth cylinder
- c. spring tooth cylinder
- d. Peg tooth cylinder

44. For safety, the minimum length of feeding chute should be kept

- a. 700 mm
- b. 900 mm**
- c. 1200 mm
- d. 1000 mm

45. For threshing the moist crop, the most suitable threshing cylinder is

- a. Rasp bar
- b. hammer mill
- c. spike tooth
- d. syndicator**

46. As per BIS, the average acceptable length of bhusa from a wheat thresher is

- a. 6-8 mm
- b. 10-12 mm
- c. 12-15 mm**
- d. 15-18 mm

47. Duffee's formula is used to find the

- a. capacity of blower
- b. capacity of null
- c. ventilation rate
- d. chopping capacity of chaff cutter**

48. Lead & registration are term related to

- a. seed drill
- b. MB plough
- c. disc plough
- d. cutter bar of mower**

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49. For wheat, the recommended speed of threshing drum is

- a. 10-150 m/s
- b. 20-30 m/s**
- c. 10-15 m/s
- d. 10-30 m/s

50. Registration in cutter bar is adjustable for

- a. outer edge of cutter bar is about 2 cm lead per metre of cutter bar**
- b. centre of knife must stop at centre of guard
- c. height of cutter bar from guard
- d. width of cutter bar per strip

51. The path traced by the material threshed between the cylinder and concave of an axial flow thresher is

- a. straight single pass and perpendicular to cylinder shaft
- b. curved and perpendicular to cylinder shaft
- c. helical and several times**
- d. straight and parallel to the cylinder shaft

52. In cutter bar of mower, the knife is connected to

- a. ledger plate
- b. cutter bar
- c. flywheel
- d. pitman**

53. In tractor mounted vertical conveyor reaper, the crop is guided by

- a. flywheel
- b. guard
- c. pressure spring
- d. star wheel**

54. A flat fan nozzle is suitable for

- a. Foliage spraying
- b. insect control
- c. spot spray
- d. herbicide spray**

55. For a given spray sample

- a. VMD=NMD**
- b. VMD<NMD
- c. VMD>NMD
- d. none of the above

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56. Part of the cone nozzle which imparts rotation to the liquid passing through it is called as

- a. **swirl plate**
- b. nozzle body
- c. nozzle cap
- d. nozzle disc

57. Maximum slip considered for calibration of seed drill is

- a. 5 %
- b. 10 %
- c. **15 %**
- d. 20 %

58. Mat type seedlings are required in

- a. **automatic paddy trans planter**
- b. conventional paddy transplanting
- c. drum seeder
- d. broadcasting method

59. Belt feed and cup feed type metering mechanism are used in

- a. **Potato planter**
- b. maize planter
- c. sugarcane planter
- d. none of these

60. Shape of groove in fluted metering mechanism

- a. elliptical
- b. **semicircular**
- c. circular
- d. all of these

61. Which of the following is considered as precision metering device?

- a. Fluted feed roller
- b. internal double run
- c. **plate with cells**
- d. Hole mesh with agitator

62. Seed rate of a seed drill is alter by changing

- a. speed of the speed shaft
- b. row spacing
- c. speed of the ground wheel
- d. **length of fluted roller**

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63. Keeping all the factors constant, the specific draft of a tillage tool in sandy loam soil, as compared to sandy soil will be

- a. more
- b. equal
- c. less**
- d. no effect

64. At higher disc angle, the draft of disc plough tends to decrease due to

- a. decrease in side draft
- b. less penetration
- c. lower throw of soil**
- d. less constant of disc & furrow wall.

65. The soil on soil coefficient of friction is dependent on

- a. Normal load
- b. surface area of contact
- c. speed of slippage
- d. soil texture**

66. Conservation cultivation places most emphasis on

- a. anti-soil erosion measures
- b. conservation of moisture
- c. energy conservation
- d. all of these**

67. Plough share used in sandy soil should be made of

- a. Mild steel
- b. Soft Centre steel
- c. high carbon steel
- d. chilled cast iron**

68. Abrasion of metal tillage tool by soil is caused by

- a. soil is in plastic stage
- b. soil as rigid body
- c. Low soil metal friction
- d. rolling of soil**

69. The ascending order of resistance to ploughing force with type of soil is

- a. Clay-loam-sandy-loam-sand
- b. Clay-sandy loam-loam-sand
- c. Sandy-sandy loam-loam-clay**
- d. Sand-loam-sandy loam-clay

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70. Under a given set of operating conditions with a specific implement the operator has little control over

- a. **parasitic force**
- b. useful soil resistance force
- c. tensile force
- d. frictional force

71. In deep litter poultry housing birds live on the floor, which is covered with a suitable litter of aboutcm depth.

- a. 10 to 15
- b. **15 to 20**
- c. 20 to 25
- d. 25 to 30

72. In which of the following storage structure winding of the rope as well as the pouring in of grain are done simultaneously

- a. Bukhari
- b. Kothari
- c. **Morai**
- d. all of the above

73. The diameter of pit silo is usually limited tom and its depth is kept 2 to 3 times that of the diameter

- a. 3
- b. 4
- c. 5
- d. **6**

74. The 2.4×2.4 m small shed of deep litter housing can accommodate about.....birds

- a. **16**
- b. 20
- c. 24
- d. 28

75. Gutters in stanchion barn are usually 45 cm wide andcm deep

- a. 10
- b. **15**
- c. 20
- d. 25

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76. A feed alley ofm width is sufficient in stanchion type dairy barn

- a. 0.4
- b. 0.9
- c. 1.0
- d. 1.2**

77. Milking Parlour is an essential part ofbarn

- a. Stanchion
- b. Loose housing**
- c. open air
- d. both a & b

78.type barns are usually preferred for bullocks and open field

- a. Face in**
- b. Face out
- c. both a & b
- d. None of the above

79. When a vertical member is carrying mainly axial loads, it is term as

- a. strut
- b. tie
- c. column**
- d. all of these.

80. In a T beam, the breadth of the rib is equal to the

- a. total thickness of the slab
- b. width of the portion of the beam in the compression zone
- c. width of the portion of the beam in the tensile zone**
- d. none of the above

81. When the ratio of effective length of the column to its least lateral dimensions does not exceed 15, it is term as

- a. long column
- b. short column**
- c. plain column
- d. None of the above

82. The purpose of lateral ties in short reinforced concrete columns is to

- a. facilitate construction
- b. facilitate compaction of concrete
- c. avoid buckling of longitudinal bars**
- d. increase load carrying capacity of the column

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83. The diameter of longitudinal bars in a column should not be less than

- a. 4 mm
- b. 8 mm
- c. 12 mm**
- d. 16 mm

84. Granite is an example of

- a. aqueous rocks
- b. sedimentary rocks
- c. metamorphic rocks
- d. igneous rocks**

85. The frog of a brick is normally made on its

- a. longer face
- b. shorter face
- c. bottom face
- d. top face**

86. The dolomite bricks are

- a. ordinary bricks
- b. acid refractory bricks
- c. basic refractory bricks**
- d. neutral refractory bricks

87. The initial setting time of cement is caused due to

- a. di-calcium aluminate
- b. tri-calcium aluminate**
- c. tri-calcium silicate
- d. tri-calcium alumino ferrite

88. The time required for seasoning of timber in kiln seasoning is

- a. 2-5 days
- b. 5-10 days
- c. 10-20 days**
- d. 20-40 days

89. According to Indian standard specifications, full strength of concrete is achieved after

- a. 7 days
- b. 14 days
- c. 21 days
- d. 28 days**

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90. The slump test for concrete is used to measure its

- a. consistency**
- b. tensile strength
- c. compressive strength
- d. impact value

91. The base material for distemper is

- a. chalk**
- b. lime
- c. clay
- d. lime putty

92. The horizontal member of wood or steel used to support the common rafter of a sloping roof are called

- a. Purlins**
- b. cleats
- c. hip rafters
- d. valley rafters

93. The combinations of a king-post truss and queen post truss is known as

- a. couple roof
- b. collar beam roof
- c. mansard roof**
- d. purlin roof.

94. The type of truss commonly used for spans varying from 5 to 9 metre is

- a. queen post truss
- b. king post truss**
- c. mansard truss
- d. composite truss

95. The pointing which is extensively used in brick work and stone masonry face work is

- a. flush pointing**
- b. struck pointing
- c. V- grooved pointing
- d. tuck pointing

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96. In a sloping roof, the inclined wooden members laid from the ridge to the eaves are known as

- a. hip rafters
- b. jack rafters
- c. common rafters**
- d. valley rafters

97. A type of bond in a brick masonry in which each course consists of alternate headers and stretchers are called

- a. English bond
- b. Flemish bond**
- c. heading bond
- d. both a & b

98. A horizontal layer of bricks laid in mortar is known as

- a. course**
- b. stretcher
- c. header
- d. closer

99. A brick which is cut in such a way that the width of its one end is half that of a full brick is called

- a. king closer**
- b. mitred closer
- c. beveled closer
- d. queen closer

100. In made-up ground having a low value of its bearing power, heavy concentrated structural loads are generally supported by providing

- a. combined footing
- b. strap footing
- c. raft footing**
- d. all of the above

101. Biological action is used in

- a. screens
- b. sedimentation tanks
- c. trickling filters**
- d. all of the above

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102. The sewage is treated by aerobic bacteria action in

- a. settling tank
- b. trickling filter
- c. oxidation pond**
- d. all of the above

103. The bio-chemical treatment of sewage effluent is a process of

- a. oxidation**
- b. deoxidation
- c. self purification
- d. sedimentation

104. Disinfection of drinking water involves removal of

- a. bacteria**
- b. turbidity
- c. odour
- d. colour

105. The basis for the design of water distribution system for a place is

- a. maximum weekly consumption
- b. average annual consumption
- c. peak hourly consumption
- d. peak hourly consumption plus fire demand.**

106. The grain silos are used to store the grain in

- a. bulk**
- b. bags
- c. both bags and bulk
- d. none of the above

107. Sludge from septic tank should be removed in

- a. 1 or 2 years**
- b. 4 years
- c. 3 years
- d. 5 years

108. Rat proofing cones are provided in a grain storage structures at a height of

- a. 0.90 m
- b. 1.20 m**
- c. 1.50 m
- d. 1.80 m

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109. The maximum length of stall barn to house 72 cows should be

- a. 33 m
- b. 40 m**
- c. 50 m
- d. 100 m

110. Quantities of wood work are computed in terms of

- a. Number
- b. area in sq. metre
- c. volume in cubic metre**
- d. weight in kilograms

111. Which of the following materials are not used for the transmission and distribution of electrical power?

- a. aluminium
- b. copper
- c. tungsten**
- d. steel

112. The usual spans with R.C.C. poles are

- a. 40—50 metres
- b. 60—100 metres
- c. 200 – 300 meters
- d. 80 – 150 meters**

113. The operating voltage of high tension cables is up to

- a. 1 – 11 kV**
- b. 11 – 20 kV
- c. 11 – 33 kV
- d. above 33 kV

114. Which of the following is usually not generating voltage ?

- a. 6.6 kv
- b. 9.9 kv**
- c. 11 kv
- d. 13.2 kv

115. Boosters are basically

- a. conductors
- b. capacitors
- c. transformers**
- d. synchronous motors

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116. Which of the following is not the distribution system normally used

- a. 3-phase 3 wire
- b. 3-phase 4 wire
- c. single phase 3 wire
- d. single phase 4 wire**

117. The highest transmission voltage

- a. 220 KV
- b. 400 KV
- c. 765 KV**
- d. 1000 KV

118. Generation voltage is

- a. 220 V
- b. 11 KV**
- c. 220 kV
- d. 66 KV

119. The power factor of purely resistive circuit is

- a. Leading
- b. unity**
- c. lagging
- d. zero

120. The transmission lines generally used are

- a. copper conductance
- b. ASCR conductor**
- c. all aluminum conductor
- d. none of the above

121. Improving power factor

- a. reduces current for a given output**
- b. increases losses in line
- c. increases the cost of station equipment
- d. none of these.

122. Ratio of maximum demand to connected load is termed as

- a. Load factor
- b. Power factor
- c. Demand factor**
- d. form factor

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123. Star-delta starter of an induction motor

- a. inserts resistance in rotor circuit
- b. inserts resistance in stator circuit
- c. applies reduced voltage to rotor
- d. applies reduced voltage to stator.**

124. The rate at which charge carrier flow is measured in

- a. Colulombs**
- b. Amperes
- c. Watt-hour
- d. watts

125. Which material is used for the manufacture of ground wire?

- a. Aluminium
- b. Galvanised steel**
- c. cast iron
- d. stainless steel

126. Which among the following is not a component of overhead transmission lines?

- a. conductors
- b. cross arms
- c. Danger plates
- d. transformers**

127. The rated voltage of a 3 phase power system is given as

- a. rms phase voltage
- b. peak phase voltage
- c. peak to line voltage
- d. rms line to line voltage**

128. In transmission system the feeder supplies power to

- a. transformer substations
- b. service mains
- c. distributors**
- d. all of the above

129. A 3 phase 4 wire systems is commonly used for

- a. primary distribution
- b. secondary distribution**
- c. primary transmission
- d. secondary transmission

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130. What quantity of charge must be delivered by a battery with potential difference of 110 V to do 660 J of work?

- a. 0.6 C
- b. 6 C**
- c. 60 C
- d. 600 C

131. Synchronous capacitor is

- a. an ordinary static capacitor bank
- b. an over excited synchronous motor driving mechanical load
- c. an over excited synchronous motor running without mechanical load**
- d. none of the above

132. Distributors are designed from the point of view

- a. its current carrying capacity
- b. operating voltage
- c. voltage drop in it**
- d. operating frequency

133. Phase angle between voltage and current in case of a pure inductance is

- a. 90 °**
- b. 0°
- c. 180°
- d. 360°

134. Resonance frequency of RLC series circuit with R=1 ohm, L= 1 H and C= 1 then F is

- a. 1 rad/s**
- b. 10 rad/s
- c. 0.1 rad/s
- d. none of these

135. watt meter is used to measure

- a. energy
- b. real power**
- c. reactive power
- d. none of these

136. Photovoltaic cells directly convert solar energy into

- a. chemical energy
- b. mechanical energy
- c. thermal energy
- d. electrical energy**

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137. The rock generally used for roofing is

- a. granite**
- b. basalt
- c. slate
- d. pumice

138. The single cylinder engine is generally used in

- a. tractor
- b. stationery engine**
- c. motor cars
- d. power tiller engine

139. Which of the following is the lightest and most volatile liquid fuel

- a. diesel
- b. kerosene
- c. petrol
- d. gasoline**

140. In cultivator, the tynes are made of

- a. iron
- b. mild steel
- c. spring steel
- d. high carbon steel**

141. The size of self-propelled combine varies from

- a. 2-4 m**
- b. 1-1.5 m
- c. 1.5-1.75 m
- d. 4.5 -10 m

142. The main function of piston skirt is

- a. absorb the thrust
- b. absorb the side of piston movement**
- c. lubricating the liner
- d. heat dissipation

143. The clearance between the rocker arm and the valve stem is called

- a. valve clearance
- b. ring clearance
- c. tappet clearance**
- d. buffer space

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144. Two stroke engine has

- a. 2 valves
- b. 2 ports
- c. 3 valves
- d. 3 ports**

145. In carburetor type engine , compression ratio is in the range of

- a. 4:1 to 8:1**
- b. 14:1 to 20:1
- c. 6:1 to 8:1
- d. 14:1 to 22:1

146. Choke of an I. C engine is used to control

- a. camshaft speed
- b. specific fuel consumption
- c. air fuel mixture**
- d. crankshaft speed

147. Governor hunting occurs due to

- a. deficiency of fuel
- b. inefficient working of governor**
- c. combustion of excess fuel in engine
- d. all of the above

148. In petrol engine thermostat valve fully opens at

- a. 70°C
- b. 75°C
- c. 82°C**
- d. 90°C

149. In I.C engine, the air fuel mixture is drawn into the cylinder during

- a. suction stroke**
- b. compression
- c. ignition
- d. combustion or compression

150. Function of a crankshaft is

- a. turn the wheel
- b. power the piston**
- c. rotate piston
- d. stop engine

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151. with respect to the engine, oil bath cleaners are always maintained

- a. horizontally
- b. vertically**
- c. 45° inclination
- d. 30° inclination

152. The amount of air taken inside the cylinder divided by the swept volume

- a. swept displacement**
- b. air standard efficiency
- c. clearance efficiency
- d. volumetric efficiency

153. Ballast sometimes used on front tyres of four wheel tractor to

- a. increase traction
- b. increase stability**
- c. decrease front wheel slippage
- d. decrease tractor vibration

154. The sound level of an agricultural tractor should not exceed

- a. 110 dB
- b. 90 dB**
- c. 100 dB
- d. 120 dB

155. The centre of resistance is the point

- a. through which c.g of tractor passes
- b. through centre line of tractor passes
- c. at the centre line of an implement and line of draft intersect**
- d. at which line of draft and centre line of tractor intersect.

156. Lugging ability of tractor is defined as

- a. Torque at highest power
- b. torque at highest point of torque curve
- c. highest torque at lowest speed**
- d. both a & b

157. How much power a farm worker can develop(HP)

- a. 0.001 hp
- b. 1 hp
- c. 0.1 hp**
- d. 0.2 hp

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158. The differential unit of tractors has a set of

- a. rack and pinion gears**
- b. worm gears
- c. bevel gears
- d. spur gears

159. The fixed cost of tractor includes

- a. depreciation and taxes**
- b. Fuel price
- c. wages
- d. none of the above

160. Firing interval in 2 cylinder 4 stroke engines is

- a. 180
- b. 90
- c. 360**
- d. 720

161. Two stroke IC engine completes its one cycle in

- a. two revolutions of camshaft
- b. two revolutions of crankshaft
- c. one revolution of camshaft
- d. one revolution of crankshaft**

162. speed reduction tractor occurs at

- a. gear box
- b. differential
- c. final drive**
- b. engine box.

163. Disc angle adjustment influences

- a. depth of cut
- b. width of cut**
- c. direction of travel
- d. soil break up

164. A reaper is used for

- a. cutting
- b. cutting and windrowing**
- c. cutting and threshing
- d. none of these

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165. The spike harrows are used mainly for

- a. primary tillage
- b. inter cultivation
- c. surface finish**
- d. none of these

166. Foam spraying requires special type of nozzle

- a. flat fan nozzle
- b. flooding nozzle
- c. hollow cone nozzle
- d. air aspiring nozzle**

167. Coupling used when two shafts are appreciably out of line

- a. universal coupling**
- b. odham coupling
- c. flanged coupling
- d. flexible coupling

168. The type of furrow opener recommended for use in hard and trashy ground also in wet and sticky soils

- a. hoe type
- b. stub runner type
- c. full or curved runner type
- d. single disc type**

169. The barbed wire fencing is made of

- a. 12 gauge
- b. 14 gauge**
- c. 16 gauge
- d. none of these

170. As per BIS standard, the power tests for tractor PTO includes

- a. maximum power, varying load and varying speed test**
- b. varying speed and maximum power test
- c. varying load and varying speed test
- d. varying load and maximum power test

171. The essential requirement for turning in a power tiller is accomplished by having

- a. both wheels as towed wheels
- b. only one wheel driven by the engine, while the other wheel is free to rotate
- c. one of the wheel disconnected from the engine at the time of turning**
- d. the same mechanism is used in a rear wheel driven tractor

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172. The size of MB plough is expressed in terms of

- a. depth of cut
- b. width of cut**
- c. length of share
- d. length of plough bottom

173. An open trench left in between two adjacent strips of land after finishing the ploughing is called

- a. back furrow
- b. dead furrow**
- c. head land
- d. open furrow

174. A furrow cross section in a country plough is commonly

- a. circular
- b. triangular
- c. rectangular
- d. trapezoidal**

175. Lister plough are usually suitable for

- .a. dryland agriculture**
- b. breaking hard pan
- c. mulching
- d. making ditches

176. Disc thickness of standard disc plough ranging between

- a. 4-7 mm
- b. 5-10 mm**
- c. 8-13 mm
- d. 12-15 mm

177. According to BIS, area required for testing of puddler is

- a. 1 ha
- b. 0.5 ha
- c. 2.5 ha**
- d. 0.25 ha

178. Useful life of cultivator

- a. 4000 hr**
- b. 2400 hr
- c. 1000 hr
- d. 5000 hr

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179. Rotavator blades are made of

- a. high carbon steel**
- b. cast iron
- c. medium carbon steel
- d. None of these

180. Flow rate of a nozzle varies with

- a. square of head
- b. inverse square of head
- c. inverse square root of head
- d. square root of head**

181. Per hectare application' rate of ULV sprayers is

- a. upto 5 litre**
- b. 5-100 litre
- c. 400 litre
- d. more than 400 litre

182. Flame gun is used for killing

- a. insects
- b. pests
- c. weeds**
- d. microbes

183. Most important factor affecting threshing efficiency

- a. peripheral speed**
- b. cylinder concave clearance
- c. feed rate
- d. moisture content

184. If the reel speed index of grain combine is more than 1.5 , it will increase

- a. cutter bar loss
- b. shatter loss**
- c. cylinder loss
- d. straw walker loss

185. A cam and follower mechanism is used in

- a. cultivator
- b. disc harrow
- c. transplanter**
- d. wheel hoe

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186. Seed metering mechanism used for vegetables seeds

- a. tape type**
- b. horizontal type
- c. double runner type
- d. pneumatic type

187. Power to the planter or seed drill is from

- a. Ground wheel**
- b. gauge wheel
- c. PTO
- d. none of these

188. Bakhar is a type of harrow

- a. disc harrow
- b. blade harrow**
- c. spike tooth harrow
- d. spring tooth harrow

189. A ridger is used for

- a. clod crushing
- b. making channel**
- c. mulching
- d. seed bed preparation

190. In zero-tillage practice the type of furrow opener used is

- a. shoe type
- b. duck feet type
- c. shovel type
- d. inverted t type**

191. Puddling is done to

- a. reduce percolation of water**
- b. kill weeds
- c. pulverize soils
- d. level the field

192. disc angle of disc plough varies from

- a. 12°-32°
- b. 20°-35°
- c. 43°-45°**
- d. 55°-65°

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193. The vertical face of share is known as

- a. wing of share
- b. gunnel**
- c. point of share
- d. cutting edge

194. Sand stone is

- a. sedimentary rock**
- b. metamorphic rock
- c. igneous rock
- d. volcanic rock

195. Distance travelled by piston from TDC to BDC

- a. stroke**
- b. bore
- c. piston displacement
- d. piston speed

196. Vertical rotor metering devices is used for

- a. bed planting
- b. precision planting**
- c. furrow planting
- d. ridge planting

197. Process of removing grain from the plant is known as

- a. harvesting
- b. milling
- c. threshing**
- d. winnowing

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198. The growth of algae is useful in

- a. oxidation pond**
- b. slow sand filter
- c. sludge digestion tank
- d. sedimentation tank

199. A device used to cut the furrow slice from the land ahead of plough bottom of the plough is known as

- a. scraper
- b. jointer**
- c. coulter
- d. pointer

200. Frog is a part of

- a. MB plough**
- b. disc plough
- c. disc harrow
- d. indigenous plough