

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

1. **The maximum area of tension reinforcement in beams shall not exceed**
 - a. 0.15%
 - b. 1.5%
 - c. 4%
 - d.1%

2. **An RCC column is treated as short column if its slenderness ratio is less than**
 - a. 30
 - b. 35
 - c. 40
 - d. 50

3. **Chemically, marbles are known as**
 - a. Metamorphic rock
 - b. Argillaceous rocks
 - c. Calcareous rock
 - d. Siliceous rocks

4. **Seasoning of timber is essential to remove**
 - a. Knots from timber
 - b. Sap from timber
 - c. Twisted fibre from timber
 - d. Roughness of timber

5. **A badly mixed cement concrete result in**
 - a. Segregation
 - b. bleeding
 - c. honey combing
 - d. none of these

6. **Wrought iron contains carbon about**
 - a. 1.5%-5.5%
 - b. 0.5% to 1.75%
 - c. 0.25%
 - d. 2.0%- 4.0%

7. **Pozzolana or surkhi is used in lime**
 - a. To impart hydraulicity
 - b. to prevent shrinkage
 - c. to decrease the cost of construction
 - d. to decrease the setting time.

- 8.
8. **Temporary hardness in water is caused by the presence of**
 - a. Bicarbonates of Ca and Mg
 - b. sulphates of Ca and Mg
 - c. chlorides of Ca and Mg
 - d. nitrates of Ca and Mg

9. **If present in water, chlorination of water does not reduce the**
 - a. Ammonia content
 - b. organic matter content
 - c. B.O.D

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- d. dissolved oxygen content
- 10. The type of joint most commonly used at the junction of a principal rafter and tie beam in timber trusses is**
- Mortise and tenon joint
 - oblique mortise and tenon joint
 - butt joint
 - mitred joint
- 11. The type of roof which slopes in two direction with a break in the slope on each side is known as**
- Gable roof
 - hip roof
 - gambrel roof
 - mansard roof
- 12. In high speed diesel engine, the volumetric efficiency increases with increase in**
- Speed
 - compression ratio
 - stroke-bore-ratio
 - none of the above
- 13. The gap between rocker arm and valve stem of an engine is known as**
- Clearance volume
 - tappet clearance
 - ring gap
 - valve clearance
- 14. Specific fuel consumption of a diesel engine as compared to a petrol engine is**
- More
 - less
 - equal
 - none of the above
- 15. A choke in carburettor of petrol engine is provided to**
- Control fuel supply
 - control air supply
 - control air-fuel mixture
 - cut-off air-fuel mixture
- 16. Governor is a device used in tractor engines to maintain nearly a constant speed of the engine under**
- Varying loads
 - constant loads
 - both a & b
 - none of the above
- 17. Governor regulator is known as sensitiveness of the governor or**
- Speed drop

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- b. speed increase
 - c. constant speed
 - d. all of the above
- 18. Pour point test is used for testing the quality of**
- b. Petrol
 - b. diesel
 - c. coolant
 - d. lubricants
- 19. Most commonly used lubricants for IC engines are**
- a. Mineral lubricants
 - b. vegetable oil
 - c. Animal fats
 - d. Both a & b
- 20. The oil pump of force feed lubrication system is driven by**
- a. Cam shaft
 - b. connecting rod
 - c. electric motor
 - d. crankshaft
- 21. Gears most commonly used in fuel injection pumps are**
- a. Spur gears
 - b. helical gears
 - c. rack and pinion
 - d. spiral gears
- 22. The standard PTO speed in a tractor is**
- a. 540 rpm
 - b. 1000 rpm
 - c. both a & b
 - d. none of the above
- 23. In tractor engine, power at right angle is transmitted by**
- a. Clutch
 - b. PTO shaft
 - c. differential
 - d. belt pulley
- 24. Most used power outlet of a tractor is**
- a. Drawbar in the rear
 - b. PTO shaft
 - c. belt pulley
 - d. both a & b
- 25. Most commonly used clutch in tractor**
- a. Single plate clutch
 - b. dog clutch
 - c. friction clutch
 - d. none of the above

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- 26. The gear reduction unit differential and drive axle of a tractor is known as**
- Differential assembly
 - crown wheel assembly
 - torque unit
 - final drive
- 27. Power take off (PTO) in tractor is a component of**
- Hydraulic system
 - power transmission system
 - steering mechanism
 - Tractor control
- 28. In tractor, slip is also called**
- Travel reduction
 - load reduction
 - forward speed
 - rolling resistance
- 29. What is the natural frequency of driver seat suspension?**
- 0.5 – 2.0 Hz
 - 1.5 – 4.0 Hz
 - 4.0 – 6.0 Hz
 - 4.0 – 10 Hz
- 30. The noise exposure level for a tractor operator working 8 hr/day is**
- 88 dB
 - 90 dB
 - 100 dB
 - 105 dB
- 31. Jump clutch as safety device should be used when**
- Overload magnitude is high but frequency of occurrence is low
 - Overload magnitude and frequency are low
 - Overload magnitude is small but frequency of occurrence is high
 - Overload magnitude and frequency is high
- 32. Horizontal component of pull perpendicular to the line of motion is called**
- Draft
 - side draft
 - specific draft
 - pull
- 33. Ply rating commonly used on tractors**
- 2,4,6
 - 4,6,8
 - 6,8,10
 - 8,10,12
- 34. The angle between the centre line of the king pin of the tractor and the vertical line**
- Camber angle
 - steering angle

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- c. caster angle
 - d. both a & b
- 35. The normal operating depth of sub-soiler ranges between**
- a. 30 -45 cm
 - b. 45 – 65 cm
 - c. 45 – 75 cm
 - d. 100cm
- 36. Stubble type of mould board is suitable for**
- a. Moderate pulverization
 - b. little pulverization
 - c. thorough pulverization
 - d. none of the above
- 37. In MB plough vertical suction influences**
- a. Width of cut
 - b. depth of cut
 - c. inversion
 - d. both a & b
- 38. A coulter is used in**
- a. Disc harrow
 - b. disc plough
 - c. MB plough
 - d. seed drill
- 39. Landside of a MB plough is made of**
- a. Mild steel
 - b. cast iron
 - c. soft center steel
 - d. all of the above
- 40. Following is the accessory used on a disc plough**
- a. Coulter
 - b. jointer
 - c. scraper
 - d. both a & b
- 41. In a disc plough, disc angle influences**
- a. Depth of cut
 - b. width of cut
 - c. both a & b
 - d. hitching
- 42. Animal drawn spike tooth harrows are**
- a. Flexible type
 - b. rigid type
 - c. both a & b
 - d. none of the above

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- 43. Types of tynes used in rotavator for working in trashy soil should be**
- a. Curved shaped
 - b. T-shaped
 - c. L-shaped
 - d. V-shaped
- 44. The optimum operating speed of a rotavator ranges from**
- a. 100 rpm
 - b. 150 – 350 rpm
 - c. 400 – 500 rpm
 - d. 300 – 450 rpm
- 45. Furrow opener recommended for hard and trashy as well as sticky soils are**
- a. hoe type
 - b. single disc type
 - c. stub runner type
 - d. curve runner type
- 46. Most commonly used fertilizer metering device in seed-cum fertilizer drill is**
- a. star wheel
 - b. vertical rotor with gears
 - c. revolving bottom disc
 - d. agitator disc
- 47. saving in energy by use of seed drill is about**
- a. 15- 20 %
 - b. 30 – 40 %
 - c. 45 – 55 %
 - d. >55%
- 48. The performance of planter is better at**
- a. Low speed
 - b. high speed
 - c. higher seed rate
 - d. more soil moisture
- 49. The application rate in a ULV sprayer is upto**
- a. 5 l/ha
 - b. 3 l/ha
 - c. 2 l/ha
 - d. 1 l/ha
- 50. Working capacity of a bullock drawn cane crusher is from**
- a. 150 to 225 kg/day
 - b. 80 to 100 kg/day
 - c. 75 to 100 kg/day
 - d. 100 to 120 kg/ day
- 51. The working capacity of chaff-cutter gets increased proportionally with**
- a. Density of crop
 - b. moisture content of crop
 - c. length of cut

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- d. number of blades
- 52. 'Seed processing' is associated to the**
- Post harvest processing only
 - process industries only
 - farm processing
 - all of the above
- 53. Percent of CO₂ in biogas is about**
- 50 to 60 %
 - 32 to 45 %
 - 10 to 20 %
 - 80 to 90 %
- 54. When power goes from engine to PTO then**
- 15% power is lost
 - 25% power is lost
 - 35% power is lost
 - 40 % power is lost
- 55. In petrol engine, the air-fuel mixture is compressed to about**
- 1/8 of its original volume
 - 1/5 of its original volume
 - 1/3 of its original volume
 - 1/2 of its original volume
- 56. In power operated groundnut decorticator, the fan of cleaning unit is driven by**
- Chain and sprocket
 - gear system
 - belt and pulley
 - main rotor shaft
- 57. In modern solar cells, a single solar cell can generate a current of about**
- 250 mA
 - 100 mA
 - 60 mA
 - 240 mA
- 58. Formula for I.H.P for 4-stroke engine is**
- $\frac{PLAN}{4500} \times n/2$
 - $\frac{PLAN}{4500} \times n/4$
 - $\frac{PLAN}{75} \times n/2$
 - $\frac{PLAN}{4500}$
- 59. In a material, the shear stress is due to**
- Compactness body over other
 - tendency to prevent sliding

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- c. compression
d. tension
- 60. The function of _____ is to lower and raise the inlet and exhaust valve**
a. crankshaft
b. piston
c. camshaft
d. rocker arm
- 61. The spontaneous combustion of remaining charge of fuel and air, causing knocking due to rapid rise of high pressure in a gasoline engine is called**
a. Scavenging
b. detonation
c. spark arrest
d. distillation
- 62. 'Brinell hardness testing machine' is associated to hardness testing of**
a. Agricultural implements
b. industrial materials
c. concrete and bricks
d. RCC
- 63. Grey cast iron is**
a. Strong in compressing
b. weak in tension
c. both a & b
d. none of the above
- 64. The basic components of combine are similar to the**
a. Reaper
b. mower
c. power thresher
d. all of the above
- 65. In tractor engine high torque reserve can improve**
a. Productivity
b. fuel efficiency
c. lugging ability
d. both a & b
- 66. In internal combustion engine, the exhaust valve and seats are exposed to temperature of _____ during the combustion**
a. 1600°C
b. 2000°C
c. 2200°C
d. 2500°C
- 67. Bomb calorimeter is used to measure**
a. Calorific value of a fuel
b. velocity of a fuel
c. ignition of a fuel
d. heating value of a fuel

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- 68. 'Cotton stripper' is associated to**
- Cotton harvesting
 - cotton threshing
 - planting of cotton seeds
 - both a & b
- 69. Hexagonal bolts are used in**
- Cheaper machines
 - ploughs
 - high-class machines
 - all types of machine
- 70. Which of the following heat treatment process increases ductility and toughness of metal?**
- Tempering
 - case hardening
 - nitriding
 - carburizing
- 71. A proper registration of mower refers to the condition, when knife section is stopped in the centre of**
- Fingers
 - its guard
 - cutter bar
 - pitman
- 72. Octane number of powerine is**
- 40
 - 65
 - 52
 - 79
- 73. Ethanol is produced from**
- Biomass
 - natural gas
 - crude oil
 - all off the above
- 74. Cold spark plug has**
- Short insulator
 - medium insulator
 - long insulator
 - very long insulator
- 75. _____ is commonly used as recharging or generating system in battery**
- Dynamometer
 - insulator
 - alternator
 - none of the above
- 76. I. unit of gravitational potential is**
- m^2/s
 - m^3/s^2

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- c. m/s
- d. m²/s²

- 77. In form spraying, the purpose of adjuvant is to**
- a. Control drift
 - b. control drop size
 - c. control spraying pattern
 - d. control working capacity
- 78. Centrifugal type governors are commonly used in**
- a. Stationary engines
 - b. low speed engines
 - c. high speed engines
 - d. both a & b
- 79. When power utilization of a tractor lies between _____ , the tractor is considered to be properly loaded with the implements in the given soil and operating conditions.**
- a. 70-75%
 - b. 75-85%
 - c. 85-90%
 - d. 95-100%
- 80. The power used by a bullock is about _____% of its body weight.**
- a. 10
 - b. 20
 - c. 30
 - d. 40
- 81. Calculate the field coverage of a disc harrow in ha/hr, having 1.2 m width. Forward speed of the operation is 3km/hr.**
- a. 0.36
 - b. 0.42
 - c. 1.6
 - d. 3.6
- 82. Flat-fan type nozzle are widely used for spraying of**
- a. Insecticides
 - b. herbicides
 - c. fungicides
 - d. none of the above
- 83. A tractor has about _____ of its weight in front and rear wheels.**
- a. 1/3, 2/3
 - b. 1/4, 2/4
 - c. 1/6, 2/3
 - d. 1/3, 2/5
- 84. An example of braked wheel is**
- a. Bus
 - b. bullock cart
 - c. seed drill

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- d. tractor
85. _____type of tyres is used in cars and trucks.
- Radial ply tyre
 - bias ply tyre
 - both a & b
 - none of the above
86. The traction weight acting on the wheel that forms the force acting against the free rolling of the wheels is called
- Co-efficient of traction
 - co-efficient of rolling resistance
 - tractive efficiency
 - none of the above
87. The space between the top of the piston and the cylinder head of an air compressor is known as
- Swept volume
 - total volume
 - stroke
 - bumping clearance
88. The speed of the squirrel cage induction motor can be controlled from
- Stator side
 - rotor side
 - stator and rotor sides
 - supply voltage side
89. Clutch pedal should have a free play of about
- 1/2" - 3/4"
 - 3/4" - 3/6"
 - 1" - 2"
 - 2" - 2.5"
90. The measurement from the centre of crankpin and centre of main journal are called
- Bore
 - clearance volume
 - crank throw
 - both a & b
91. Orchard power dusters are operated by
- Auxiliary engines
 - reciprocating pumps
 - plunger pumps
 - hydraulic ram
92. Match the processes in group-I with the derived products given in group-II.
- | | |
|-------------------------|-----------------|
| i. Group-I | Group-II |
| ii. Transesterification | a. Producer gas |
| iii. Pyrolysis | b. Ethanol |
| iv. Yeast fermentation | c. biogas |
| v. Anaerobic digestion | d. biodiesel |

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- a. i-a; ii-c; iii-b; iv-d
- b. i-d; ii-c; iii-b; iv-a
- c. i-b; ii-d; iii-a; iv-c
- d. i-d; ii-a; iii-b; iv-c

- 93. The farm machine implement used only for preparing wetland is**
- a. rotavator
 - b. disc harrow
 - c. hydro-tiller
 - d. cultivator
- 94. The ASLE-SAE standard for tractor 3-point hitches has been categorized as category I-IV on the basis of**
- a. Maximum drawbar power
 - b. maximum drawbar pull
 - c. brake power of tractor engine
 - d. maximum PTO power
- 95. One slip-ring of a 3-phase induction motor gets open-circuited. The motor will**
- a. Continue to run at the same speed
 - b. run at a lower speed
 - c. run at a higher speed
 - d. stop
- 96. Under no load operating condition, the speed of a universal motor is limited by**
- a. supply frequency
 - b. armature reaction
 - c. armature weight
 - d. windage and friction
- 97. Piston pin is also called**
- a. wrist pin
 - b. gudgeon pin
 - c. needle
 - d. both a & b
- 98. Match the following**
- | | |
|--------------------|-------------------------------------|
| P. wheat milling | i. rubber rollers |
| Q. paddy dehusking | ii. Abrasive energy roller cylinder |
| R. pulse dehusking | iii. Break and reduction rolls |
| S. spice grinding | iv. Hammer mills |
- a. P-ii, Q-I, R-iii, S-iv
 - b. P-I, Q-ii, R-iv, S-iii
 - c. P-iii, Q-I, R-ii, S-iv
 - d. P-I, Q-iii, R-iv, S-ii
- 99. curing of concrete should be done in**
- a. two days
 - b. five days
 - c. seven days

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

d. nine days

100. The dimension of perch is

- a. 5×4 cm
- b. 5×5 cm
- c. 5×6 cm
- d. 6×8 cm

101. In belt drive, smaller tension ratio results in

- a. High tension and reduction in belt life
- b. high tension and excessive belt slippage
- c. low tension and increase in belt life
- d. low tension and low belt slippage

102. Log mean temperature difference (LMTD) correction factor (F) is applicable to

- a. Spiral tube heat exchanger
- b. steam jacketed kettle
- c. plate heat exchanger
- d. evaporator tubes

103. Which of the following motors is used for unity power factor?

- a. Squirrel-cage induction motors
- b. slip ring induction motors
- c. Hysteresis motor
- d. Schrage motor

104. The specific gravity of the electrolyte in a fully charged cell should be

- a. 1.200 – 1.225
- b. 1.100 – 1.180
- c. 1.280 – 1.300
- d. 1.300 – 1.382

105. Roller chains are used for

- a. High speed
- b. low speed
- c. high load
- d. both a & b

106. 'Dieldrin' is the

- a. Organic compound as spray material
- b. oil compound as spray material
- c. inorganic compound
- d. none of the above

107. The expected annual working hours of seed drill is

- a. 1000
- b. 1500
- c. 2000
- d. 1700

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

108. The brooder house may be

- a. Stationary type
- b. portable type
- c. both a & b
- d. none of the above

109. The amount of feed mixture required per hen is about

- a. 50 gm
- b. 75 gm
- c. 100 gm
- d. 125 gm

110. In refining of the rice barn oil for edible purpose, neutralization process is carried out mainly to remove

- a. Wax and organic impurities
- b. gums and mucilage
- c. saturated glycerides
- d. free fatty acids

111. For a two-wheel drive tractor, use of differential lock in adverse field condition ensures

- a. Equal distribution of torque to both the drive wheels
- b. Equal distribution of power to both the drive wheels
- c. Distribution of higher amount of torque to the wheel under poor traction
- d. Distribution of higher amount of torque to the wheel under better traction

112. For constant voltage transmission, the voltage drop along the line is maintained constant by installing

- a. Capacitors
- b. inductors
- c. synchronous phase modifiers at the
- d. resistors receiving end

113. With rise in temperature, the insulation resistivity

- a. Remains unchanged
- b. decreases linearly
- c. increases linearly
- d. reduces exponentially

114. Selection of drive wheel for seed drill depends on

- a. Ground condition
- b. soil type
- c. size of drill
- d. all of the above

115. _____ is used when two shafts are appreciable out of line .

- a. Oldham coupling
- b. universal coupling
- c. flexible coupling
- d. flanged coupling

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

116. To sense the position of levers in position and draft control of three-point linkage _____ is used

- a. Load sensing system
- b. potentiometers
- c. hydrometer
- d. position orientation system

117. Protective resistance to be connected between the sphere gap and the test equipment is required while measuring

- a. All kinds of voltage
- b. power frequency and impulse voltage
- c. power frequency and higher frequency a.c. voltage
- d. none of these

118. The ripple voltage in dc output is small if

- a. Frequency of supply voltage is small
- b. the filtering capacitor is small
- c. load current is small
- d. none of these

119. As per ASAE standards, the diameter of 1000 rpm PTO shaft with 20 splines is

- a. 30 mm
- b. 35 mm
- c. 40 mm
- d. 45 mm

120. Angle of internal friction is ____ for moist, loose, fine-textured unsaturated agricultural soil.

- a. 25°
- b. 30°
- c. 35°
- d. 45°

121. Rigid-brittle type of failure is considered for soils

- a. Above plastic range
- b. below plastic range
- c. in plastic range
- d. none of the above

122. Single tyre system has _____ tractive efficiency than dual tyre system

- a. Slightly greater
- b. slightly lesser
- c. greater
- d. same

123. In barbed wire fencing, the spacing between barbs is

- a. 5-10 cm
- b. 1.5-15 cm
- c. 10-20 cm
- d. 15-30cm

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

124. The face out barn is preferred for

- a. Milch animals
- b. calf and hives
- c. draught animals
- d. none of these

125. In restrained link operation of three point hitches, the line of pull passes

- a. Through the virtual hitch point and bending force exists on lower links
- b. Above the virtual hitch point and bending force exists on lower links
- c. Below the virtual hitch point and no bending force exists on lower links
- d. Through the virtual hitch point and tensile force exists on lower links

126. In which of the following cases are delay fuses used?

- a. For the protection of light circuits
- b. for the protection of power out-let circuits
- c. for the protection of fluorescent lamps
- d. for the protection of motors

127. Aspect ratio of high-profile tyre is

- a. 80%
- b. 90%
- c. 98%
- d. 100%

128. In British unit, pressure is measured in

- a. Pound per square inch
- b. newton per square meter
- c. kg per meter second square
- d. both a & b

129. 'Sticky belt method' is associated to the

- a. Testing of seed uniformity
- b. seed drill performance
- c. power consumption of seed drill
- d. seed drill calibration

130. Bukhar can be used for

- a. Preparing seed bed in kharif season
- b. preparing seed bed in rabi season
- c. covering seeds in kharif season
- d. all of the above

131. Which of the following motors is used most frequently?

- a. D.C. shunt motor
- b. A.C. induction motor
- c. three phase commutator motor
- d. three phase induction motor

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

132. _____ is best suited for wrought iron.

- a. Linde welding
- b. forge iron
- c. gas welding
- d. submerged arc welding

133. In trailed type cultivators, the working depth is set by

- a. Adjusting the tynes in their clamps
- b. decreasing speed
- c. putting additional weight
- d. tilt angle

134. Specific gravity of most of most of the building stones lies between

- a. 1.5 to 2.0
- b. 2.0 to 2.5
- c. 2.5 to 3.0
- d. 3.0 to 3.5

135. Pug mill is used for

- a. Preparation of clay
- b. moulding of clay
- c. drying of bricks
- d. burning of brick

136. The maximum amount of energy which can be stored in a body upto the elastic limit is known as

- a. Plasticity
- b. malleability
- c. contact resistance
- d. proof resilience

137. Cementite consist of ____ carbon and ____ iron.

- a. 6.67%, 93.33%
- b. 5.97%- 94.37%
- c. 7.9%- 95.66%
- d. 8.1%- 96.87%

138. All parts of MB plough are attached with

- a. Share
- b. landside
- c. frog
- d. all of the above

139. The conductor connecting consumer's terminal to the distributor is called the

- a. Feeder
- b. distributor
- c. service main
- d. none of the above

140. Number of discs in animal drawn disc harrow is

- a. 6 to 8
- b. 5 to 10
- c. 4 to 5

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

d. 3 to 4

141. The size of crankshaft gear is

- a. Double of the cam shaft gear
- b. half of the cam shaft gear
- c. the same as timing gear
- d. the same as cam shaft gear

142. As per IS specification n the maximum final setting for ordinary portland cement should be

- a. 30 min
- b. 1 hours
- c. 6 hours
- d. 10 hours

143. In disc plough, the disc is mounted on

- a. Tapered roller bearing
- b. ball bearing
- c. roller bearing
- d. hub bearing

144. Thermal power share about _____% of total energy produced in India.

- a. 36
- b. 10
- c. 65
- d. 56

145. In order to improve the voltage profile of the line, compensation is resorted by providing

- a. Capacitors at the receiving end
- b. reactors at the receiving end
- c. resistors at the receiving end
- d. none of these

146. Skin effect is

- a. Proportional to frequency
- b. proportional to square of frequency
- c. inversely proportional to frequency
- d. independent of frequency

147. In which of the following implements, the draft is maximum

- a. Indigenous plough
- b. hand hoe
- c. akola hoe
- d. spike tooth harrow

148. The property of fuel, which prevents preignition in the cylinder, is called

- a. Anti-knocking
- b. detonation
- c. knocking
- d. sleeving

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

149. In engine, the worn piston rings cause the problem of

- a. Improper torque
- b. failure of engine to develop full power
- c. less thermal efficiency
- d. failure of engine to start

150. The main purpose of puddling is to

- a. Reducing leaching of water
- b. kill the weeds
- c. facilitates transplanting of paddy seedlings
- d. all of the above

151. Which of the following gradients exerts maximum influence on properties of steel?

- a. Iron
- b. carbon
- c. manganese
- d. sulphur

152. Horizontal axis type wind measuring device is

- a. Cup anemometer
- b. ultrasonic anemometer
- c. vane anemometer
- d. hot wire anemometer

153. At the time of sunset or sunrise the zenith angle is

- a. 90°
- b. 45°
- c. 60°
- d. 180°

154. Gas produced in _____ gasifier has practically no ash but contains tar.

- a. Cross-draught
- b. up-draught
- c. down draught
- d. co-current

155. A six-cylinder engine rated at 2200 rpm will generate a fundamental sound frequency of

- a. 105 dB
- b. 220 dB
- c. 115 dB
- d. 300dB

156. At time of seating in tractor seat, least muscular effort to hold the foot in position is obtained at an angle of ____° between long axes and lower leg.

- a. 30
- b. 45
- c. 60
- d. 90

157. Mat-type seedlings are ready to transplant after how many days of sowing?

- a. 15-20 days
- b. 30 -40 days
- c. 20-22 days
- d. 25-27 days

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

158. The function of steel wire in an ACSR conductor is to

- a. Compensate for skin effect
- b. take care of surges
- c. provides additional mechanical strength
- d. reduce inductance

159. AC network analyser is employed for solving the problems of

- a. Load flow
- b. load flow and stability
- c. load flow and short-circuit
- d. load flow, stability and short-circuit

160. Venturi tube is provided in carburettor for

- a. Producing low pressure
- b. Producing high pressure
- c. Both (a) & (b)
- d. None of these

161. Radiator is generally fabricated as

- a. Tabular type
- b. Cellular type
- c. Both (a) & (b)
- d. None of these

162. Starting motor is engaged with ring gear of engine with the help of

- a. Pinion gear
- b. Helical gear
- c. Sliding pinion gear
- d. Bevel gear

163. A strip of unploughed land that is left at each end of the field for tractor turning is

- a. Gathering
- b. Head land
- c. Casting
- d. None of these

164. The maximum water-cement ratio for durable concrete is

- a. 0.2
- b. 0.4
- c. 0.6
- d. 0.8

165. A good quality cement should have higher percentage of

- a. Silica
- b. free lime
- c. di-calcium silicate
- d. tri-calcium silicate

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

166. Before testing setting time of cement, one should test for

- a. Soundness
- b. strength
- c. fineness
- d. consistency

167. Increase in temperature in overhead transmission lines causes

- a. Increase in stress and length
- b. decrease in stress and length
- c. decrease in stress but increase in length
- d. none of the above

168. Spray drift potential is higher in

- a. Hollow cone nozzle
- b. flat fan nozzle
- c. solid cone nozzle
- d. none of the above

169. When rain causes a hard crust over the soil and it obstruct the emergence of young seedlings, it is called

- a. Weeding
- b. capping
- c. crusting
- d. none of the above

170. In disc plough, the location of centre of resistance is towards

- a. Left and below the centre of disc
- b. Left and above the centre of disc
- c. right and below the centre of disc
- d. right and above the centre of disc

171. The quantity of fuel consumed by engine per hour per BHP is called

- a. Specific fuel consumption
- b. fuel consumption
- c. engine intake
- d. none of the above

172. Series capacitor is used in a transmission line to

- a. Compensate the voltage drop
- b. reduce line loss
- c. limit short circuit current
- d. improves load power factor

173. 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

174. The process of filling up all nail holes, cracks etc. with putty is known as

- a. Knotting

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- b. priming
- c. stopping
- d. finishing

175. An improper registration of reaper results in

- a. Uneven harvesting
- b. Excessive clogging of crop
- c. Unbalance load
- d. All of the above

176. The length of cutter bar of power tiller operated reaper is about

- a. 100-120 cm
- b. 100-140 cm
- c. 100-160 cm
- d. 100-180 cm

177. Hook's law holds good up to

- a. yield point
- b. elastic limit
- c. plastic limit
- d. breaking point

178. A cantilever beam is one which is

- a. fixed at both ends
- b. fixed at one end and free at the other
- c. supported at its ends
- d. supported on more than two supports

179. During operation, the effective pull on belt is equal to

- a. $T_1 - T_2$
- b. $T_2 - T_1$
- c. 10kg/cm^2
- d. 100 kgf

180. Corona loss in a transmission line is dependent on

- a. Diameter of the conductor
- b. material of the conductor
- c. height of the conductor
- d. none of the above

181. Factor of safety is defined as the ratio of

- a. ultimate stress to working stress
- b. working stress to ultimate stress
- c. breaking stress to ultimate stress
- d. ultimate stress to breaking stress

182. A type of solar reflector used in solar furnace

- a. Concave and spherical
- b. convex and spherical
- c. plane and spherical
- d. none of the above

183. Digester diameter of biogas plants ranges from

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

- a. 1-3meter
- b. 1.2-4 meter
- c. 1.2-6 meter
- d. 1.6- 8 meter

184. In steering mechanism of tractor, the radius rod is pivoted on the

- a. Toe-in
- b. PTO
- c. transmission shaft
- d. clutch lousing

185. In India, which of the following states has geothermal energy plants?

- a. Himachal Pradesh
- b. Karnataka
- c. Jammu and Kashmir
- d. All of the above

186. The tensile test is carried on

- a. Ductile
- b. brittle
- c. malleable
- d. plastic

187. The proportion of wet cow dung and water in slurry seed to the digester is

- a. 1:1
- b. 1:2
- c. 1:3
- d. 1:4

188. The dry process of biomass digestion involves

- a. Pyrolysis and liquification
- b. Anaerobic digestion and fermentation
- c. Fermentation and pyrolysis
- d. All of the above

189. A reinforced cement concrete beam is considered to be made of

- a. homogeneous material
- b. heterogeneous material
- c. composite material
- d. isotropic material

190. Which of the following method or techniques can be used for measurement of high d.c. voltages?

- a. Generating voltmeter
- b. Electrostatic voltmeter
- c. peak voltmeter
- d. half effect generator

191. The dimension of cage, to house single bird may be

- a. 0.4×0.1×0.4 meters
- b. 0.8×0.2×0.6 meters
- c. 0.6×0.2×0.45 meters

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

d. none of the above

192. In tractors, the steering worm of steering shaft is meshed with

- a. Sector on the vertical shaft
- b. worm gear
- c. rocker arm
- d. toe-in system

193. In vertical disc plough, tilt angle of disk is

- a. 5°
- b. 15°
- c. 20°
- d. 0°

194. A tractor will have less tendency to overturn backwards, which is with

- a. A long wheel base
- b. short wheel base
- c. small wheel
- d. universal joint

195. Which of the following rotor is used in thermal power plants?

- a. squirrel cage rotor
- b. either of these
- c. salient pole rotor
- d. cylindrical rotor

196. In dry milling process, the following operations are done prior to oil treatment is

- a. Conditioning
- b. Pitting
- c. Polishing
- d. Grading

197. A screw conveyor has

- a. Triangular trough
- b. U-shape trough
- c. V-shape trough
- d. Trapezoidal shape trough

198. Which of following power plants normally operate at high speed?

- a. Hydroelectric
- b. thermal
- c. diesel engine
- d. petrol engine

199. The centre to centre distance, between two consecutive rivets in a row, is called

- a. Margin
- b. pitch
- c. back pitch
- d. diagonal pitch

MAGDALINE COACHING CENTRE (mc²)
Agriculture Engineering paper- II

(Answer key is at the bottom)

200. In trailed type cultivator, the tynes are arranged in

- a. Random form
- b. ziz-zag form
- c. alternate form
- d. staggered form

Answer keys

1.C	2. D	3. C	4. B	5. C	6.C	7.A	8.A	9.D	10.B
11.C	12.C	13.B	14.B	15.B	16.A	17.A	18.D	19.A	20.D
21.C	22.C	23.C	24.A	25.A	26.D	27.B	28.A	29.A	30.B
31. C	32.B	33.B	34.C	35.C	36.C	37.B	38.C	39.C	40.C
41.B	42.B	43.C	44.B	45.B	46.B	47.C	48.A	49.A	50.A
51.A	52.C	53.B	54.B	55.A	56.D	57.C	58.A	59.B	60.C
61.B	62.A	63.C	64.C	65.D	66.D	67.D	68.A	69.C	70.A
71.B	72.C	73.D	74.A	75.C	76.D	77.A	78.A	79.D	80.A
81.A	82.B	83.A	84.C	85.A	86.B	87.D	88.A	89.A	90.C
91.A	92.D	93.C	94.A	95.B	96.D	97.D	98.C	99.C	100.A
101.A	102.C	103.D	104.C	105.D	106.A	107.B	108.C	109.C	110.D
111.D	112.C	113.D	114.A	115.B	116.B	117.C	118.D	119.D	120. A
121.B	122.A	123.B	124.A	125.B	126.D	127.D	128.A	129.A	130.D
131.D	132.B	133.A	134.C	135.A	136.D	137.A	138.C	139.C	140.A
141.B	142.D	143.A	144.D	145.A	146.A	147.A	148.A	149.B	150.D
151.B	152.C	153.A	154.B	155.B	156.D	157.C	158.C	158.D	160.A
161.C	162.C	163.B	164.D	165.D	166.D	167.C	168.A	169.B	170.A
171.A	172.A	173.A	174.C	175.D	176.A	177.B	178.B	179.A	180.A
181.A	182. A	183.C	184.D	185.D	186.A	187.A	188.A	189.B	190.A
191.C	192.A	193.D	194.A	195.D	196.B	197.B	198.B	199.B	200. D

MAGDALINE COACHING CENTRE (mc²)

Agriculture Engineering paper- II

(Answer key is at the bottom)