

27/2015

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Now a days the type of gear box used in automobiles is :
 - (A) Synchronesh gear box
 - (B) Sliding mesh gear box
 - (C) Constant mesh gear box
 - (D) Planetary gear box

2. In an ice plant the refrigerant generally used is :
 - (A) Carbon Dioxide
 - (B) Ammonia
 - (C) Air
 - (D) Freon

3. In which cycle petrol engine works :
 - (A) Diesel cycle
 - (B) Carnot cycle
 - (C) Otto cycle
 - (D) Dual combustion cycle

4. Which is not the function of brake in a vehicle?
 - (A) To increase the torque of wheel
 - (B) To stop the vehicle in shortest distance
 - (C) To slow down the vehicle
 - (D) To control the vehicle steadily, specially when vehicle descends down a hill

5. In centrifugal pump the negative pressure is created at:
 - (A) Suction pipe
 - (B) Impeller eye
 - (C) Delivery pipe
 - (D) Foot valve

6. Which irrigation method soil erosion is mostly controlled?
 - (A) Surface irrigation
 - (B) Sprinkler irrigation
 - (C) Drip irrigation
 - (D) Border strip irrigation

7. In CFTRI 'F' represents :
 - (A) Fertilizer
 - (B) Farm
 - (C) Flood
 - (D) Food

8. Which is not the part of air brake?
(A) Fly wheel (B) Compressor
(C) Unloader valve (D) Reservoir
9. Displacement pumps are also known as :
(A) Centrifugal pump (B) Turbine pump
(C) Propeller pump (D) Reciprocating pump
10. Spanners are generally made of :
(A) Cast iron (B) Chrome vanadium steel
(C) Aluminium (D) Mild steel
11. From the following which is not a cause of low discharge in a centrifugal pump :
(A) Speed of pump is low (B) There is mud on the suction line
(C) Delivery pipe is more big in size (D) Air leak in the suction line
12. In a carburettor air fuel ratio for cold starting :
(A) 9 : 1 (B) 15 : 1
(C) 8 : 1 (D) 1 : 1
13. In an air brake system the working fluid is :
(A) Compressed air (B) Compressed liquid
(C) Heated air (D) Heated liquid
14. When cutting by hacksaw we do not press in reversed stroke because :
(A) The teeth is projected backward (B) The teeth is projected forward
(C) The teeth is projected vertical (D) No such thing
15. Which is the transformation ratio of a transformer which has output voltage 200 volt and input voltage 40 volt?
(A) 10 (B) 5
(C) 0.5 (D) 8000
16. Calculate the total resistance of 3.5 ohms, 2.75 ohms and 4 ohms connected in series:
(A) 4 ohms (B) 2.75 ohms
(C) 3.5 ohms (D) 10.25 ohms

Complete the series :

17. Voltage : Volt , Current : Ampere, Resistance :

- (A) Ohm (B) Tesla
(C) Newton (D) Watt

18. Parboiling : CFTRI, Storage structure : Kothari, Desehelling :

- (A) Under runner disk sheller (B) Horizontal rice whitening machine
(C) Knap sack sprayer (D) Rasp bar cylinder

19. _____ is the removal of hulls and bran from paddy grain to produce polished rice :

- (A) Desehelling (B) Parboiling
(C) Threshing (D) Rice milling

Pick out the odd one out :

20. Motor, Generator ,Thresher ,Transformer :

- (A) Thresher (B) Motor
(C) Transformer (D) Generator

21. Brake shoe, liner, fuel injector, brake drum :

- (A) Brake drum (B) Fuel injector
(C) Brake shoe (D) Liner

22. A pump is a machine which convert :

- (A) Mechanical energy in to electrical energy
(B) Heat energy in to mechanical energy
(C) Chemical energy in to heat energy
(D) Mechanical energy in to pressure energy

23. A machine which convert electrical energy in to mechanical energy :

- (A) Generator (B) Motor
(C) Transformer (D) Electrical cell

24. Pick out which not matching :

- (A) Refrigerant – Crushing
(B) Cold storage – Vapour compression system
(C) Grain drying – Moisture content
(D) Storage structure – Kothari

25. Which is the storage structure for grass?
- (A) Anvil (B) Silo
(C) Gun (D) Strainer
26. Important component of a drier :
- (A) Impeller (B) Beam
(C) Discharge feed roller (D) Fins
27. _____ is removed during whitening of the rice.
- (A) Husk (B) Moisture
(C) Stone (D) Bran
28. Which irrigation is commonly seen in Kuttanad?
- (A) Sprinkler (B) Drip
(C) Sub surface (D) None of these
29. Which is the following is not the advantages of rice bran?
- (A) It contain vitamin C (B) It contain cholesterol anti oxide
(C) It contain large amount of protein (D) It contain vitamin B
30. The drip irrigation method is also called :
- (A) Sprinkler irrigation (B) Surface irrigation
(C) Sub surface irrigation (D) Trickle irrigation
31. From the following statement which is false :
- (A) In solvent oil extraction method can produce oil in bulk amount industrially
(B) In solvent oil extraction method no possibility of changing chemical structure because of high Temperature
(C) More possibility of loss of oil on processing in solvent oil extraction method
(D) More pure oil is get in solvent oil extraction method than mechanical method
32. Which is not a type rice whitener?
- (A) Wire loop type thresher
(B) Friction type
(C) Grinding type
(D) Combination of friction and grinding type

33. The tillage system which is most suited for area of high rain fall :
- (A) Rotary strip tillage system (B) Minimum tillage system
(C) Till plant system (D) Ridge planting system
34. The diameter of a engine is called :
- (A) Bore (B) Stroke
(C) TDC (D) BDC
35. The power developed in an engine cylinder is :
- (A) Indicated horse power (B) Brake horse power
(C) Frictional horse power (D) No power is developed
36. Which mould body is preferred for more stick is oil where it is difficult to get the mould board to Scour?
- (A) Stubble (B) SOD
(C) High speed (D) Slat
37. The ratio of brake horse power to indicated horse power is called :
- (A) Mechanical efficiency (B) Thermal efficiency
(C) Air standard efficiency (D) Fuel efficiency
38. A trailed implement is :
- (A) Rigidly attached to tractor and has a rear wheel or wheels support part of it weight
(B) It attached to tractor as an integral part
(C) Is one that attached to tractor draw bar by pin joint whose weight supported on the ground
(D) There is no such implement
39. Pick out which is not match :
- (A) Spark plug—Petrol engine (B) Differential—Master cylinder
(C) Injector—Diesel engine (D) Clutch—Friction plate
40. Which method was developed at 'Tiruvarur' India later half of 1969?
- (A) Kisan continuous par boiling (B) Fernandes process
(C) CFTRI method (D) Pressure par boiling

41. The lubricating oil used in gear box of a tractor is :
- (A) SAF 30 (B) SAE 90
(C) SAE 40 (D) SAE 20
42. Pick the odd one out :
- (A) Throttle valve (B) Float chamber
(C) Control rack (D) Choke valve
43. In welding electrode the flux coating is used:
- (A) To get high temperature
(B) To fuse metal easily
(C) To protect fused metal from oxidation and to get strength to weld
(D) For electrical insulation
44. Evapo transpiration is the sum of two terms :
- (A) Transpiration and infiltration (B) Transpiration
(C) Transpiration and evaporation (D) Infiltration and evaporation
45. Which is the process of removing metal by means of cold chisel :
- (A) Filing (B) Chipping
(C) Drilling (D) Threading
46. Which is a precision measuring instrument :
- (A) Steel rule (B) Vernier calliper
(C) Brass rule (D) Spring calliper
47. Which is used for marking and testing of 90 degree angle :
- (A) Try square (B) Steel rule
(C) Telescopic gauge (D) Micro meter
48. In gas welding there is excess of acetylene the flame is called :
- (A) Carburizing flame (B) Oxidising flame
(C) Neutral flame (D) None of the above
49. Which one is suitable for spraying in small garden and nursery:
- (A) Engine powered sprayer (B) Knap sack sprayer
(C) Air plane sprayer (D) Hand atomizer

50. The manufacturer of fuel injection pump :
- (A) MICO (B) HMT
(C) HAL (D) BHEL
51. When the vehicle is climbing up the hill track the gear box supplies?
- (A) Low torque (B) Not torque
(C) Higher torque (D) Any of them
52. For cutting external thread on bars which tool is used :
- (A) Taps (B) Reamer
(C) Dies (D) Drills
53. A propeller shaft connects :
- (A) Engine with clutch (B) Clutch with gear box
(C) Gear box with differential (D) Gear box with universal joint
54. In an micro meter pitch of the thread is 1 mm and there is 100 division on the thimble scale. The least count is :
- (A) 1/50 MM (B) 1/100 MM
(C) 1/10 MM (D) 1 MM
55. Which one is not a holding tool?
- (A) Bench vice (B) Ball peen hammer
(C) Pipe vice (D) C clamp
56. Maintenance cost of magneto ignition system compared to that of battery- coil ignition system is :
- (A) Higher (B) Same
(C) Less (D) Not predictable
57. _____ ploughs are used in the area where climate is dry and where the soil is rough and stony.
- (A) Disk plough (B) Mould board plough
(C) Sweeps (D) Sub soiler
58. Heat exchange between water and air in a radiator take place by :
- (A) Conduction (B) Convention
(C) (A) and (B) (D) Radiation

59. The included angle of centre punch is :
- (A) 90 degree (B) 30 degree
(C) 120 degree (D) 60 degree
60. Which is not a part of clutch system?
- (A) Sun gear (B) Pressure plate
(C) Clutch plate (D) Fly wheel
61. Gear box is installed between :
- (A) Engine and fly wheel (B) Fly wheel and clutch
(C) Clutch and differential (D) Clutch and propeller shaft
62. Which is not a plant protecting machinery?
- (A) Hand compression sprayer (B) Centre fugal pump
(C) Rocking sprayer (D) Power duster
63. The property of a metal to make thin sheet by hammering :
- (A) Ductility (B) Malleability
(C) Brittleness (D) Elasticity
64. Brake linings of a mechanical brake are made of :
- (A) Brass (B) Copper
(C) Steel (D) Asbestos
65. Inside micro meter can be used to measure :
- (A) Diameter of a cylinder (B) Bore of an engine cylinder
(C) Thickness of plate (D) Clearance of a spark plug electrodes
66. In air brake system air compressor is driven by :
- (A) Electric motor (B) Battery
(C) Hand operator (D) Engine itself
67. In an IC engine the Total volume of the cylinder / Clearance volume is called :
- (A) Swept volume (B) Mean effective pressure
(C) Compression ratio (D) Brake horse power