

**OBJECTIVE QUESTION BANK
FOR LDCE EXAMINATION
OF
TECHNICIAN – III
(AIR CONDITIONING)**

SYLLABUS

S No.	Description	Page No.
I.	TECHNICAL	
1.	General Electrical Engineering	02
2.	Basic Electronics	27
3.	Electrical Units: Equivalents & Formulae	31
4.	Cells	34
5.	Alternator & RRU	39
6.	ERRU	50
7.	Railway Carriage Fans	52
8.	Train Lighting Coach Wiring	53
9.	Abbreviations Or Expanded Form	56
10.	Air Conditioning	59
11.	RMPU Coaches	66
12.	LHB Coaches	79
13.	EOG Power Cars	86
II.	NON-TECHNICAL	
1.	Establishment	89
2.	Stores Procurement	92
3.	Rajbhasha – Hindi	95

1. GENERAL ELECTRICAL ENGINEERING

1. For the protection of single-phase 1.5 kW motor, a MCB of rating should be provided [b]
 (a) 10 A (b) 16 A (c) 32 A (d) 63 A
2. The low power factor results in [a]
 (a) Increased losses (b) Decreased losses
 (c) No effect on losses (d) Better generating efficiency
3. Low power factor [b]
 (a) Aids the voltage regulation (b) Increase the voltage regulation
 (c) Decrease the voltage regulation (d) None of the above
4. The power factor of the AC supply can be improved by using [c]
 (a) Synchronous generator (b) Universal motor
 (c) Synchronous condenser (d) SCR
5. A distribution line of 440 V is classified as [b]
 (a) LV (b) MV (c) HV (d) EHV
6. Which of the following is not used as a overhead conductor [c]
 (a) ACSR (b) Weasel (c) PILCA (d) Zebra
7. Which of the following reduces the power factor [d]
 (a) Motor on no load (b) Tube lights
 (c) Fans (d) All of the above
8. Under high voltage test cable shall withstand an AC voltage of [b]
 (a) 1.5 kV (b) 3 kV (c) 5.2 kV (d) 7.2 kV
9. Under high voltage test cable shall withstand a DC voltage of [d]
 (a) 1.5 kV (b) 3 kV (c) 5.2 kV (d) 7.2 kV
10. Under water immersion test cable is immersed in a water bath at [c]
 (a) 40° C (b) 50° C (c) 60° C (d) 70° C
11. For water immersion test, cable is immersed in hot water at specified temperature, after 24 hrs the voltage applied between conductor and water for five minutes is [d]
 (a) 3 kV (b) 4 kV (c) 5 kV (d) 6 kV
12. Unit of energy is [b]
 (a) Kilo volt hours (b) Kilo watt hours (c) Kilo watt (d) None of the above
13. As per Ohm's law [b]
 (a) $V = IR$ (b) $V = I/R$ (c) $R = V \times I$ (d) None of the above
14. Unit of resistance is [c]
 (a) Ampere (b) Volts (c) Ohm (d) none of the above

15. In three phase 415 volts 50 Hz supply, the phase to phase voltage is [b]
 (a) 220 Volts (b) 415 volts (c) 440 volts (d) none of the above
16. In three phase 415 volts 50 Hz supply, the phase to neutral voltage is [b]
 (a) 220 volts (b) 230 volts (c) 440 volts (d) none of the above
17. In 4 sq. mm PVC wire, 4 sq. mm stand for [c]
 (a) Thickness of wire (b) Length of wire
 (c) The area of thickness of wire (d) none of the above
18. The instrument to measure the light is called [b]
 (a) Tong tester (b) Lux meter (c) Micro meter (d) none of the above
19. 10 hours use of 500 watt lamp will consume the energy [c]
 (a) 10 units (b) 20 units (c) 5 units (d) 10 units
20. No. of poles in MCB/TPN is [b]
 (a) 2 poles (b) 4 poles (c) 3 poles (d) 1 pole
21. A.C. is converted into D.C. by [d]
 (a) Dynamo (b) Motor. (c) Transformer (d) Rectifier
22. A kilowatt-hour is a unit of [a]
 (a) Energy (b) Electrical potential (c) Power (d) Electric current
23. An electric lamp is marked 100 watt. It is working on 200 Volts. [a]
 The current through the lamp is given as
 (a) 0.5 Amp. (b) 0.2 Amp. (c) 5.0 Amp. (d) 1.0 Amp.
25. Before carrying out O/H maintenance following is due [d]
 (a) Transformer is switched off
 (b) DG set is switched off
 (c) HT panel is switched off
 (d) Respective O/H feeder is switched off or earthed
26. In house wiring the red wire indicates the [a]
 (a) Phase (b) Neutral (c) Earth wire (d) Dead wire.
27. In house wiring the black wire indicates the [b]
 (a) Phase (b) Neutral (c) Earth wire (d) Dead wire
28. In house wiring the green wire indicates the [c]
 (a) Phase (b) Neutral (c) Earth wire (d) Dead wire.
29. In 4 wire electric circuit, the black conductor is used for [b]
 (a) Phase (b) Neutral (c) Earth wire (d) Armour
30. In cabling system the earth is connected with conductor having colour [d]
 (a) Red (b) blue (c) yellow (d) Armour
31. Unit of current is [b]
 (a) Watt (b) Ampere (c) Volt (d) ohm
32. Heater element is made up of [b]
 (a) Tin (b) Nichrome (c) Silver (d) Any above

33. Filament of incandescent lamp is made of [c]
 a) Tin (b) Nichrome (c) Tungsten (d) Silver
34. An insulator should have [a]
 a) High resistance (b) High conductance
 (c) High conductivity (d) All of the above
35. Which of the following is used to make electric connections [d]
 a) Solder (b) PG clamp
 (c) Thimbles (d) All above
36. Instrument used for measuring the speed of rotating machines/ appliances is [b]
 a) Lux meter (b) Tachometer (c) Micrometer (d) None above
37. Instrument used for measuring the thickness of wire/strip is [c]
 a) Lux meter (b) Tachometer (c) Micrometer (d) None above
38. Instrument used for measuring the voltage across a circuit is [b]
 a) Ammeter (b) voltmeter (c) Thermometer (d) None above
39. Instrument used for measuring the current is [a]
 a) Ammeter (b) voltmeter (c) Thermometer (d) None above
40. Instrument used for measuring the temperature is [c]
 a) Ammeter (b) voltmeter (c) Thermometer (d) None above
41. Illumination level is measured in terms of [a]
 a) Lux (b) Volt (c) Ampere (d) Ohm
42. Insulating resistance is measured by using [b]
 a) Multimeter (b) Insulation Megger (c) Voltmeter (d) Hydrometer
43. Which of the following is used for rectification of AC supply [a]
 a) Diodes (b) Transistors (c) Capacitor (d) Resistors
44. Which preparation should be done starting a new wiring [a]
 a) Prepare a wiring diagram (b) Prepare for shock treatment
 (c) Both a & b (d) None of the above
45. In wiring circuit the fuse will be placed on [a]
 (a) Phase (b) Neutral (c) Earth (d) Any of the above
46. Which of the following tests should be done before connecting a wiring to the main line [a]
 (a) IR test (b) Continuity test (c) Polarity test (d) Any above
47. Which of the following is a common wiring fault [d]
 (a) Short circuit (b) Open circuit (c) Fuse blown (d) All above
48. Wattage rating range of electric kettle is [b]
 (a) 50-500 W (b) 350-1000 W (c) 1000-1500 W (d) 1200-1600 W

49. Device used for auto off an electric iron is [a]
 (a) Thermostat switch (b) Overload relay
 (c) Time delay switch (d) Any of the above
50. Can you repair an immersion rod [a]
 (a) No (b) Yes (c) It depend on condition (d) None above.
51. A wire gauge is used to measure diameter of [a]
 (a) Wire (b) cable (c) OH conductor (d) Any above
52. To improve the power factor, capacitors are connected in the circuit as [a]
 (a) Parallel path (b) Series path (c) Any of a & b (d) None of the above
53. To switch ON or switch OFF the supply in accordance with day light, following is used [a]
 (a) Light dependent resistor (b) Light emitting diode
 (c) Any of a & b (d) None of the above
54. In order to draw more current from the electric source [a]
 (a) Resistors are connected in parallel (b) Resistors are connected in series
 (c) Resistors are connected in series and parallel (d) None of the above.
55. If a 60 W and 100 W lamps in series and are connected to a source of supply, which lamp will give more light [b]
 (a) 100 W (b) 60 W (c) Both will give same light (d) None of the bulb will glow.
56. Power is defined as [b]
 (a) Capacity of doing work (b) Rate of doing work
 (c) Product of force and distance (d) Energy dissipated by load. [c]
57. Unit of electric Energy is [a]
 (a) Kilowatt (b) watt
 (c) Kilowatt hour (d) watt hour
58. The internal resistance of battery is increased by [c]
 (a) Increase in no. of cells
 (b) Decrease in no. of cells
 (c) None of the above
 (d) Both a and b
59. A generators converts [c]
 (a) Mechanical energy into light
 (b) Electrical energy to mechanical energy
 (c) Mechanical energy to electrical energy
 (d) None of the above
60. Power factor of AC circuit is equal to [b]
 (a) Tan of phase angle (b) Sine of phase angle
 (c) Cosine of phase angle (d) None of the above
61. Resistance of open circuit is equal to [b]
 (a) Zero (b) Infinity
 (c) Less than 1 ohm (d) None above

- 62 Laminated core is used to reduce [b]
 (a) Hysteresis loss (b) Eddy current loss
 (c) Copper loss (d) iron loss
- 63 Which of the following is not a non-conventional energy source [d]
 (a) Solar (b) Bio gas
 (c) Wind (d) Electricity
- 64 Solar energy is used for [d]
 (a) Lighting (b) Cooking
 (c) Battery charging (d) All above
- 65 Solar and wind hybrid system is [a]
 (a) Becoming popular (b) Not possible
 (c) Conventional energy source (d) None of the above
- 66 Bio gas depends on [b]
 (a) Electrical energy (b) Waste products
 (c) Both a and b (d) None of the above
- 67 Which of the following is not a constituent of a solar lighting system [d]
 (a) Photo voltaic cell (b) Back up batteries
 (c) Charger (d) Earth wire.
- 68 Which of the following is not a type of fuse [c]
 (a) HRC (b) Rewirable
 (c) Ceramic (d) None above.
- 69 Which of the following is not a type of generating station? [d]
 (a) Thermal (b) Nuclear (c) Hydro (d) Atmospheric
- 70 Which of the following is not a part of overhead distribution line [d]
 (a) Conductor (b) Insulator (c) Cross arms (d) Thimbles
- 71 Type of insulator not used in a 3 phase, 440 V overhead distribution line [c]
 (a) Pin (b) Shackle (c) Disc (d) None above
- 72 Instrument connected in the circuit with the ammeter (in panel) to facilitate the measurement of current is [a]
 (a) Current transformer (b) Potential transformer
 (c) Excitation transformer (d) None of the above
- 73 Capacitor opposes [a]
 (a) Instantaneous change of voltage (b) Instantaneous change of current
 (c) Instantaneous change in resistance (d) None of the above
- 74 Inductor opposes [b]
 (a) Instantaneous change of voltage
 (b) Instantaneous change of current
 (c) Instantaneous change in resistance
 (d) None of the above
- 75 Current is [a]
 (a) Rate of flow of charge (b) Gradual change in resistance
 (c) Linear change in capacitance (d) None of the above.
- 76 When resistances are connected in parallel, the equivalent resistance [a]
 (a) Decreases (b) Increases
 (c) No change (d) May increase or decrease
- 77 When resistances are connected in series, the equivalent resistance [b]
 (a) Decreases (b) Increases
 (c) No change (d) May increase or decrease

- 78 Diode allows the flow of the current [a]
 (a) In one direction (b) In both the directions
 (c) Flow of current not allowed (d) None of the above.
- 79 When capacitances are connected in parallel, the equivalent capacitance [b]
 (a) Decreases (b) Increases
 (c) no change (d) May increase or decrease
- 80 When capacitances are connected in series, the equivalent capacitance [a]
 (a) Decreases (b) Increases
 (c) No change (d) May increase or decrease
- 81 Two lamps of 60 W and one of 100 W are connected in series to a supply 220 V, the current flowing in the circuit will be [a]
 (a) 1 A (b) 2 A
 (c) 3 A (d) 4 A
- 82 A 2 x 40 W box type fitting glows for 10 hrs in a day, units consumed per day will be [c]
 (a) 0.72 (b) 0.04
 (c) 0.8 (d) 1
- 83 A 2 x 40 W box type fitting glows for 10 hrs in a day, electric charges for the month of June @ Rs. 3/- per unit will be Rs. [c]
 (a) 18 (b) 3.60
 (c) 72 (d) 90
- 84 One ordinary ceiling fan works for 12 hrs in a day, units consumed per day will be [a]
 (a) 0.72 (b) 0.04
 (c) 0.8 (d) 1
- 85 One ordinary ceiling fan works for 12 hrs in a day, electric charges per day @ Rs. 2/- per unit will be [b]
 (a) 0.72 (b) 1.44
 (c) 0.8 (d) 1
- 86 One 20 inch desert cooler (150 W) works for 8 hrs per day, units consumed per day will be [a]
 (a) 1.2 (b) 1.8 (c) 2.1 (d) 2.4
- 87 One 20 inch desert cooler (150 W) works for 8 hrs per day, electric charges for the month of July @ Rs. 3/- per unit will be [a]
 (a) 111.6 (b) 110.2 (c) 90 (d) 115.3
- 88 A geyser of 25 ltrs., 1500 W remains ON for 2 hrs per day, units consumed for 6 months will be [a]
 (a) 540 (b) 480 (c) 620 (d) 700
- 89 One 60 w lamp and 2 fans works for 10 hrs per day, units consumed per day will be [a]
 (a) 1.8 (b) 2.1 (c) 1.7 (d) 3
- 90 A 10 hp pump works for 10 hrs per day, monthly consumption will be [d]
 (a) 223.8 (b) 2.23 (c) 22.38 (d) 2238
- 91 A grinders in a factory, equipped with 1.5 hp motor, works for 6 hrs per day, the units consumed per day will be [b]
 (a) 5.490 (b) 6.714 (c) 2388 (d) 1940
- 92 Internal resistance of a cell is 0.1 ohm and 10 cells are connected in series to form a battery supplying a current of 1 A, the power lost in the battery is [b]
 (a) 0.5 W (b) 1 W (c) 5 W (d) 50 W
- 93 The resistance of human body lies between [d]
 (a) 100-200 ohm (b) 5 K ohm-50 K ohm
 (c) 1 M ohm-10 M ohm (d) 100 k ohm-500 K ohm

- 94 Instrument used to measure electric energy consumption is [c]
 (a) Galvanometer (b) Potentiometer
 (c) Energy meter (d) None of the above
- 95 Which of the following keeps the poles straight [a]
 (a) Stay rod (b) Cross arm
 (c) Conductor (d) Insulator
- 96 Inside the geyser there is a [b]
 (a) Filament (b) Immersion rod (c) Any of a & b (d) None of the above
- 97 Which of the following is used for concealed wiring in a house [a]
 (a) PVC conduit (b) GI pipe (c) Spun concrete pipe (d) Any of the above.
- 98 The size of copper wire used for point wiring in sq mm is [a]
 (a) 1.5 (b) 2.5 (c) 4 (d) 10
- 99 The size of copper wire used for sub main in sq mm is [b]
 (a) 1.5 (b) 2.5 (c) 4 (d) 10
- 100 The size of Aluminium wire used for point wiring in sq mm is [c]
 (a) 1.5 (b) 2.5 (c) 4 (d) 10
- 101 The combined Earth resistance of 33kV/11 kV receiving station should not exceed [a]
 (a) 1 ohm (b) 2 ohms (c) 10 ohms (d) 20 ohms
- 102 The combined earth resistance of 11 kV/415 V Sub-station should not exceed [b]
 (a) 0.5 Ω (b) 2 Ω
 (c) 10 Ω (d) 20 Ω
- 103 The integration time employed by supply authorities for recording [b]
 M.D. for a 33 kV/415 V, 10 MVA Sub-station is –
 (a) 5 minutes (b) 15 minutes (c) 45 minutes (d) 60 minutes
- 104 While designing a sub-station anticipated future loads in the next ... years are taken [d]
 (a) 1 year (b) 2 years (c) 20 years (d) 5-7 years
- 105 As per the present Tariff the minimum power factor of sub-station should be [c]
 (a) 0.8 (b) 0.85 (c) 0.90 (d) 0.95
- 106 The minimum clearance of lowest conductor from the ground of 33 kV [c]
 lines, across the road.
 (a) 3 M (b) 4 M (c) 6.1 M (d) 14 M
- 107 The minimum clearance of lowest conductor from the ground [a]
 of 33 kV lines, along a street.
 (a) 5.8 M (b) 3.0 M (c) 4.0 M (d) 14 M
108. The minimum vertical clearance from 11 kV line to any part of building. [c]
 (a) 2.0 M (b) 10.M (c) 3.7 M (d) 6.0 M
109. The minimum Horizontal clearance of 11 kV lines from any buildings. [b]
 (a) 1.2 M (b) 3.7 M (c) 6.1 M (d) 10 M
110. The Visible, Audible, Partial discharge at the surface of conductor at high [b]
 voltage is called –
 (a) Skin affect (b) Corona (c) Creep (d) None of these
111. For maintaining power supply quantity the frequency variation of [b]
 power supply are restricted to
 (a) $\pm 1\%$ (b) $\pm 3\%$ (c) $\pm 0.5\%$ (d) $\pm 10\%$
112. The 3 phase voltage unbalance in supply should not exceed [a]
 (a) 2.5.% to 5% (b) 20% (c) 25% (d) 10%
113. For maintaining power supply quality the rate of change of frequency [c]
 should not exceed.
 (a) 5 Hz (b) 10 HZ (c) 1 HZ (d) 3 Hz

114. In Thermal Power plants the generator used are [b]
 (a) AC 3 Ø, Induction Generators.
 (b) AC 3 Ø, Synchronous Generators.
 (c) D.C. Shunt Generators.
 (d) AC 1 Ø Synchronous Generators.
115. The highest system voltage of normal 33 kV System for the purpose of design of equipments is [b]
 (a) 30 kV. (b) 36 kV. (c) 33 kV. (d) 66 kV.
116. The Rod gap on the L.V side of 11 kV/415, 250 kVA Transformer is [d]
 (a) 300 mm. (b) 100 mm.
 (c) 50 mm. (d) Rod gap L.A. is not provided for LV side of Transformer.
117. The rated voltage of L.A. for 11 kV/415V Transformer Protection is [c]
 (a) 11 kV. (b) 12 kV.
 (c) 9 kV. (d) 24 kV.
118. For medium sized 11 kV/415 v, 500 kVA Transformer sub-station, the type of L.A. used are [b]
 (a) Station type. (b) Line type.
 (c) Distribution type. (d) None of these.
119. The line type L.A. used for our 11 kV and 33 kV Sub-station are having a standard normal discharge current (Peak) [a]
 (a) 5 KA. (b) 10 KA.
 (c) 1.5 KA. (d) 2.5 KA.
120. The span of supports for 11 kV overhead lines should not exceed. [c]
 (a) 100 m. (b) 65 m.
 (c) 30 m. (d) 27 m.
121. The testing of relays should be performed at a interval of [b]
 (a) 6 months. (b) 12 months (c) 18 months (d) 24 months
122. If any live conductor in the circuit is entangled with tree branch _____ operates. [a]
 (a) EFR (b) OVR
 (c) OLR (d) Thermal relay
123. _____ relay operates if there is a heavy increase in load current. [c]
 (a) EFR (b) OVR
 (c) OLR (d) Thermal relay
124. _____ relay indicates the temperature rise of a transformer. [d]
 (a) EFR (b) OVR
 (c) OLR (d) Thermal relay
125. If the relay setting of 60/5 CT is at 3.75, then the tripping will be at [b]
 (a) 60 Amp. (b) 45 Amp. (c) 30 Amp. (d) 50 Amp
126. The normal SPG of electrolyte of lead acid battery should be [c]
 (a) 1.160 (b) 1.180 (c) 1.220 (d) 1.240
127. The terminal voltage of a fully charged lead acid cell is [c]
 (a) 1.8 V (b) 2.0 V (c) 2.2 V (d) 2.4 V
128. The terminal voltage of a lead acid cell should not fall below [c]
 (a) 1.6 V (b) 1.8 V (c) 2.0 V (d) 2.2 V
129. The normal charging rate of 120 AH lead acid battery set is [d]
 (a) 4 A (b) 8 A (c) 12 A (d) 16 A
130. The ratio of distil water and acid used to prepare new electrolyte for lead acid cell is [d]
 (a) 1 : 1 (b) 2 : 1 (c) 3 : 1 (d) 4 : 1

131. Following law is applicable in the working of lead acid cell [c]
 (a) Faradays law of self-induction.
 (b) Faradays law of mutual induction
 (c) Faradays law of electrolysis.
 (d) Newton's law of motion.
132. The capacity of storage battery is expressed as [d]
 (a) No. of recharges it can take
 (b) Time for which it can be used
 (c) No. of cells it contain
 (d) Ampere hour it can deliver.
133. Sedimentation in lead acid cell occurs due to [a]
 (a) Overcharging at high rate.
 (b) Slow charging at low rate.
 (c) Over discharge at low rate.
 (d) Non-utilization for long periods.
134. Even when not in use, a lead acid battery should be recharged once in [a]
 (a) Six week (b) Six days
 (c) Three months (d) Six months.
135. First step to be carried out before starting work on faulty portion of overhead line is to [b]
 (a) Earth the line on both the ends of the portion
 (b) Obtain the permit to work
 (c) Bring ladder or crane (d) Climb on the pole immediately
136. Before starting the work on faulty circuit it should be ensured that [a]
 (a) The faulty portion has been isolated from the power supply
 (b) The worker is strong enough to climb the pole
 (c) The cable is not deep enough to dig
 (d) None of the above.
137. The electric overhead line on which work is to be carried out should be necessarily earthed on both the ends to [c]
 (a) Dispense the charge stored between the conductors due to capacitive effect
 (b) To bring the line at zero potential
 (c) Both a & b
 (d) None of the above
138. One can protect himself from electric shock while working on live circuit by wearing gloves of good [b]
 (a) Conducting material (b) Insulating material
 (c) Semiconductor material (d) Any of the above.
139. Which of the following are principal safety precautions [d]
 (a) Don't touch live wire or equipment with bare hands
 (b) Before switching on supply see no one is working in the line
 (c) Use rubber gloves and meeting.
 (d) All of the above.
140. Which of the following is most effective method of artificial respiration [a]
 (a) Mouth to mouth air pumping method (b) To use bicycle air pump
 (c) Both a & b (d) None of the above

141. Which material is recommended as fire extinguisher in electrical cases [b]
 (a) Carbon tetra chloride
 (b) Carbon dioxide
 (c) Sulphur hexafluoride
 (d) Any of the above
142. Which of the following is to be necessarily kept in a electric substation [d]
 (a) First aid box
 (b) Stretcher
 (c) Earthing rod
 (d) All of the above
143. The warning board to be provided, on the switch of the line on which work is going on [a]
 (a) Men at working
 (b) Danger
 (c) Keep away
 (d) None of the above
144. Staff competent to work on overhead line of MV should be [c]
 (a) Unskilled
 (b) Semi skilled
 (c) Highly skilled
 (d) Any of the above
145. Which of the following is a renewable source of energy? [d]
 a) coal b) oil c) Natural gas d) Solar
146. The law of conservation of energy states that energy [d]
 a) can be created and destroyed
 b) is destroyed in the process of burning
 c) cannot be converted from one
 d) is neither destroyed nor created; But can be transform from one form to another form
147. Absolute pressure is [c]
 a) Gauge Pressure
 b) Atmospheric Pressure
 c) Gauge pressure + Atmospheric Pressure
 d) Gauge Pressure - Atmospheric Pressure
148. 100 kCals expressed as kilojoules would be [a]
 a) 418.7 kJ b) 4.187 Joules c) 4.187 kJ d) 41.87 kJ
149. When heat flows from one place to another by means of a liquid or gas, it is being transferred [d]
 by
 a) radiation b) conduction
 c) sublimation d) convection
150. How many watts are in a hp? [d]
 a) 700 b) 725 c) 740 d) 746
151. The characteristic of an electrical circuit that forces current to flow is [d]
 a) watts b) amps c) ohms d) volts
152. Voltage and resistance in an electrical circuit are related by Ohm's law and determine [d]
 a) resistance b) voltage c) the type of circuit d) current
153. The characteristic of an electrical circuit that opposes current flow is [a]
 a) resistance b) voltage c) friction d) power

170. The ratio between the number of turns on the primary to the turns on the secondary of a transformer is known as: [c]
 a) turns ratio b) efficiency c) winding factor d) power factor
171. The ratio of overall maximum demand of the plant to the sum of individual maximum demand of various equipments is _____. [b]
 a) load factor b) diversity Factor c) demand Factor d) maximum demand
172. Core losses in transformer are caused by _____. [c]
 a) Hysteresis loss b) Eddy current loss c) both a & b d) None
173. The load losses in transformer vary according to _____. [b]
 a) Loading of transformer b) Square of loading of transformer
 c) Cube of loading of transformer d) None
174. The total losses in a transformer operating at 50% load with designed no load and load losses at 2 kW and 20 kW respectively are _____. [a]
 a) 7 kW b) 12 kW c) 4.5 kW d) 22 kW
175. The total amount of harmonics present in the system is expressed using _____. [c]
 a) Total Harmonic Factor b) Total Harmonic Ratio
 c) Total Harmonic Distortion d) Crest Factor
176. The 5th and 7th harmonic in a 50 Hz power environment will have: [c]
 a) voltage and current distortions with 55 Hz & 57 Hz
 b) voltage and current distortions with 500 Hz & 700 Hz
 c) voltage and current distortions with 250 Hz & 350 Hz
 d) no voltage and current distortion at all
177. The type of energy possessed by the charged capacitor is [b]
 a) Kinetic energy b) Electrostatic c) Potential d) Magnetic
178. The energy stored in the bonds of atoms and molecules is called [b]
 a) Kinetic energy b) Chemical energy
 c) Potential energy d) Magnetic energy
179. Active power consumption of motive drives can be determined by using one of the following relations. [d]
 a) $\sqrt{3} \times V \times I$ b) $\sqrt{3} \times V^2 \times I \times \cos\phi$
 c) $\sqrt{3} \times V \times I^2 \times \cos\phi$ d) $\sqrt{3} \times V \times I \times \cos\phi$
180. The grade of energy can be classified as low, high, extra ordinary. In case of electrical energy it would fall under ____ category. [c]
 a) low grade b) extra ordinary grade
 c) high grade d) none of the above
181. The portion of apparent power that doesn't do any work is termed as [c]
 a) Apparent power b) Active power
 c) Reactive Power d) None of the above
182. Power factor (PF) is the ratio of [c]
 a) Apparent power & Active power b) Active power & Reactive power
 c) Active Power & Apparent power d) Apparent power & Reactive power

183. kVA is also called as [b]
 a) reactive power b) apparent power c) active power d) captive power
184. The energy consumed by a 50 kW motor loaded at 40 kW over a period of 4 hours is [b]
 a). 50 kWh b) 160 kWh c) 40 kWh d) 2000 kWh
185. The ratio of maximum demand to the connected load is termed as [b]
 a) Load factor b) Demand factor
 c) Contract demand d) none of the above
186. A single phase induction motor is drawing 10 amps at 230 volts. If the operating power factor of the motor is 0.9, then the power drawn by the motor is [c]
 a) 2.3 kW b) 3.58 kW c) 2.07 kW d) 2.70 kW
187. The quantity of heat required to raise the temperature of 1 gram of water by 1 °C is termed as [c]
 a) Specific heat b) Heat capacity c) One Calorie d) Sensible heat
188. Nameplate kW or HP rating of a motor indicates [b]
 a) input kW to the motor b) output kW of the motor
 c) minimum input kW to the motor d) maximum input kW to the motor
189. The quantity of heat required to change 1 kg of the substance from liquid to vapour state without change of temperature is termed as [b]
 a) Latent heat of fusion b) Latent heat of vaporization
 c) Heat capacity d) Sensible heat
190. The latent heat of condensation of 1 kg of steam at 100 °C to form water at 100 °C, it gives out the heat of [b]
 a) 580 kCal b) 540 kCal c) 620 kCal d) 2260 kCal
191. The specific heat of _____ is very high compared to other common substances listed below [c].
 a) Lead b) Mercury c) Water d) Alcohol
192. The property of viscosity of liquid fuels: [c]
 a) decreases with decreasing temperature
 b) increases with increasing temperature
 c) decreases with increasing temperature
 d) increases with decreasing temperature
193. The quantity of heat Q, supplied to a substance to increase its temperature depends upon the following. [c]
 a) sensible heat added b) latent heat of fusion
 c) specific heat of the substance d) heat capacity
194. Unit of specific heat in SI system is _____. [c]
 a) joule /kg °C b) kg/cm² c) kcal/m³ d) kcal/cm²
195. The change by which any substance is converted from a gaseous state to liquid state is termed as ---- [a]
 a) condensation b) Evaporation c) Fusion d) Phase change
196. The method of producing power by utilizing steam generated for process in the boiler is termed as ---- [b]
 a) Extraction b) Cogeneration c) Both a & b d) Neither a nor b

197. The S.I. unit of power is
 (a) Henry
 (b) coulomb
 (c) watt
 (d) watt-hour
 Ans: c
198. Electric pressure is also called
 (a) resistance
 (b) power
 (c) voltage
 (d) energy
 Ans: c
199. The substances which have a large number of free electrons and offer a low resistance are called
 (a) insulators
 (b) inductors
 (c) semi-conductors
 (d) conductors
 Ans: d
200. Out of the following which is not a poor conductor?
 (a) Cast iron
 (b) Copper
 (c) Carbon
 (d) Tungsten
 Ans: b
201. Out of the following which is an insulating material?
 (a) Copper
 (b) Gold
 (c) Silver
 (d) Paper
 Ans: d
202. The property of a conductor due to which it passes current is called
 (a) resistance
 (b) reluctance
 (c) conductance
 (d) inductance
 Ans: c
203. Conductance is reciprocal of
 (a) resistance
 (b) inductance
 (c) reluctance
 (d) capacitance
 Ans: a
204. The resistance of a conductor varies inversely as
 (a) length
 (b) area of cross-section
 (c) temperature
 (d) resistivity
 Ans: b
205. With rise in temperature the resistance of pure metals
 (a) increases
 (b) decreases
 (c) first increases and then decreases
 (d) remains constant
 Ans: a
206. With rise in temperature the resistance of semi-conductors
 (a) decreases
 (b) increases
 (c) first increases and then decreases
 (d) remains constant
 Ans: a

207. The resistance of a copper wire 200 m long is 21 Ω . If its thickness (diameter) is 0.44 mm, its specific resistance is around
 (a) $1.2 \times 10^{-8} \Omega\text{-m}$ (b) $1.4 \times 10^{-8} \Omega\text{-m}$
 (c) $1.6 \times 10^{-8} \Omega\text{-m}$ (d) $1.8 \times 10^{-8} \Omega\text{-m}$
 Ans: c
208. Three resistances of 10 ohms, 15 ohms and 30 ohms are connected in parallel. The total resistance of the combination is
 (a) 5 ohms (b) 10 ohms
 (c) 15 ohms (d) 55 ohms
 Ans: a
209. An instrument which detects electric current is known as
 (a) voltmeter (b) rheostat
 (c) wattmeter (d) galvanometer
 Ans: d
210. In a circuit a 33 Ω resistor carries a current of 2 A. The voltage across the resistor is
 (a) 33 V (b) 66 V
 (c) 80 V (d) 132 V
 Ans: b
211. A light bulb draws 300 mA when the voltage across it is 240 V. The resistance of the light bulb is
 (a) 400 Ω (b) 600 Ω
 (c) 800 Ω (d) 1000 Ω
 Ans: c
212. The resistance of a parallel circuit consisting of two branches is 12 ohms. If the resistance of one branch is 18 ohms, what is the resistance of the other?
 (a) 18 Ω (b) 36 Ω
 (c) 48 Ω (d) 64 Ω
 Ans: b
213. Four wires of same material, the same cross-sectional area and the same length when connected in parallel give a resistance of 0.25 Ω . If the same four wires are connected in series the effective resistance will be
 (a) 1 Ω (b) 2 Ω
 (c) 3 Ω (d) 4 Ω
 Ans: d
214. A current of 16 amperes divides between two branches in parallel of resistances 8 ohms and 12 ohms respectively. The current in each branch is
 (a) 6.4 A, 6.9 A (b) 6.4 A, 9.6 A
 (c) 4.6 A, 6.9 A (d) 4.6 A, 9.6 A
 Ans: b
215. Current velocity through a copper conductor is
 (a) the same as propagation velocity of electric energy
 (b) independent of current strength
 (c) of the order of a few m/s
 (d) nearly $3 \times 10^8 \text{ m/s}$
 Ans: c

216. Which of the following material has nearly zero temperature co-efficient of resistance?
 (a) Manganin (b) Porcelain
 (c) Carbon (d) Copper
 Ans: a
217. You have to replace 1500 Ω resistor in radio. You have no 1500 Ω resistor but have several 1000 Ω ones which you would connect
 (a) two in parallel (b) two in parallel and one in series
 (c) three in parallel (d) three in series
 Ans: b
218. Two resistors are said to be connected in series when
 (a) same current passes in turn through both
 (b) both carry the same value of current
 (c) total current equals the sum of branch currents
 (d) sum of IR drops equals the applied e.m.f.
 Ans: a
219. Which of the following statement is true both for a series and a parallel D.C. circuit?
 (a) Elements have individual currents (b) Currents are additive
 (c) Voltages are additive (d) Power are additive
 Ans: d
220. Which of the following materials has a negative temperature co-efficient of resistance?
 (a) Copper (b) Aluminum
 (c) Carbon (d) Brass
 Ans: c
221. Ohm's law is not applicable to
 (a) vacuum tubes (b) carbon resistors
 (c) high voltage circuits (d) circuits with low current densities
 Ans: a
222. Which is the best conductor of electricity?
 (a) Iron (b) Silver
 (c) Copper (d) Carbon
 Ans: b
223. For which of the following 'ampere second' could be the unit?
 (a) Reluctance (b) Charge
 (c) Power (d) Energy
 Ans: b
224. All of the following are equivalent to watt except
 (a) (amperes) ohm (b) joules/sec.
 (c) amperes x volts (d) amperes/volt
 Ans: d
225. A resistance having rating 10 ohms, 10 W is likely to be a
 (a) metallic resistor (b) carbon resistor
 (c) wire wound resistor (d) variable resistor
 Ans: c

226. Which one of the following does not have negative temperature co-efficient ?
 (a) Aluminium (b) Paper
 (c) Rubber (d) Mica
 Ans: a
227. Varistors are
 (a) insulators (b) non-linear resistors
 (c) carbon resistors (d) resistors with zero temperature coefficient
 Ans: b
228. Insulating materials have the function of
 (a) preventing a short circuit between conducting wires
 (b) preventing an open circuit between the voltage source and the load
 (c) conducting very large currents
 (d) storing very high currents
 Ans: b
229. The rating of a fuse wire is always expressed in
 (a) ampere-hours (b) ampere-volts
 (c) kWh (d) amperes
 Ans: d
230. The minimum charge on an ion is
 (a) equal to the atomic number of the atom
 (b) equal to the charge of an electron
 (c) equal to the charge of the number of electrons in an atom
 (d) zero
 Ans: b
231. In a series circuit with unequal resistances
 (a) the highest resistance has the most of the current through it
 (b) the lowest resistance has the highest voltage drop
 (c) the lowest resistance has the highest current
 (d) the highest resistance has the highest voltage drop
 Ans: d
232. The filament of an electric bulb is made of
 (a) carbon (b) aluminium
 (c) tungsten (d) nickel
 Ans: c
233. A 3 Ω resistor having 2 A current will dissipate the power of
 (a) 2 watts (b) 4 watts
 (c) 6 watts (d) 8 watts
 Ans: c
234. Which of the following statement is true?
 (a) A galvanometer with low resistance in parallel is a voltmeter
 (b) A galvanometer with high resistance in parallel is a voltmeter
 (c) A galvanometer with low resistance in series is an ammeter
 (d) A galvanometer with high resistance in series is an ammeter
 Ans: c

235. The resistance of a few meters of wire conductor in closed electrical circuit is

- (a) Practically zero
- (b) low
- (c) high
- (d) very high

Ans: a

236. If a parallel circuit is opened in the main line, the current

- (a) increases in the branch of the lowest resistance
- (b) increases in each branch
- (c) is zero in all branches
- (d) is zero in the highest resistive branch

Ans: c

237. If a wire conductor of 0.2 ohm resistance is doubled in length, its resistance becomes

- (a) 0.4 ohm
- (b) 0.6 ohm
- (c) 0.8 ohm
- (d) 1.0 ohm

Ans: a

238. Three 60 W bulbs are in parallel across the 60 V power line. If one bulb burns open

- (a) there will be heavy current in the main line
- (b) rest of the two bulbs will not light
- (c) all three bulbs will light
- (d) the other two bulbs will light

Ans: d

239. The four bulbs of 40 W each are connected in series with a battery across them, which of the following statement is true ?

- (a) The current through each bulb is same
- (b) The voltage across each bulb is not same
- (c) The power dissipation in each bulb is not same
- (d) None of the above

Ans: a

240. Two resistances R_1 and R_i are connected in series across the voltage source where $R_1 > R_i$. The largest drop will be across

- (a) R_1
- (b) R_i
- (c) either R_1 or R_i
- (d) none of them

Ans: a

241. What will be energy used by the battery if the battery has to drive 6.28×10^{18} electrons with potential difference of 20 V across the terminal ?

- (a) 5 joules
- (b) 10 joules
- (c) 15 joules
- (d) 20 joules

Ans:

242. A closed switch has a resistance of

- (a) zero
- (b) about 50 ohms
- (c) about 500 ohms
- (d) infinity

Ans: a

243. The hot resistance of the bulb's filament is higher than its cold resistance because the temperature co-efficient of the filament is
 (a) zero (b) negative
 (c) positive (d) about 2 ohms per degree
 Ans: c
244. Heat in a conductor is produced on the passage of electric current due to
 (a) reactance (b) capacitance
 (c) impedance (d) resistance
 Ans:
245. The insulation on a current carrying conductor is provided
 (a) to prevent leakage of current (b) to prevent shock
 (c) both of above factors (d) none of above factors
 Ans: c
246. The thickness of insulation provided on the conductor depends on
 (a) the magnitude of voltage on the conductor
 (b) the magnitude of current flowing through it
 (c) both (a) and (b)
 (d) none of the above
 Ans: a
247. Which of the following quantities remain the same in all parts of a series circuit ?
 (a) Voltage (b) Current
 (c) Power (d) Resistance
 Ans: b
248. A 40 W bulb is connected in series with a room heater. If now 40 W bulb is replaced by 100 W bulb, the heater output will
 (a) decrease (b) increase
 (c) remain same (d) heater will burn out
 Ans: b
249. In an electric kettle water boils in 10 m minutes. It is required to boil the boiler in 15 minutes, using same supply mains
 (a) length of heating element should be decreased
 (b) length of heating element should be increased
 (c) length of heating element has no effect on heating if water
 (d) none of the above
 Ans: a
250. An electric filament bulb can be worked from
 (a) D.C. supply only (b) A.C. supply only
 (c) Battery supply only (d) All above
 Ans: d
251. Resistance of a tungsten lamp as applied voltage increases
 (a) decreases (b) increases
 (c) remains same (d) none of the above
 Ans: b

252. Electric current passing through the circuit produces
 (a) magnetic effect (b) luminous effect
 (c) thermal effect (d) chemical effect
 (e) all above effects
 Ans: c
253. Resistance of a material always decreases if
 (a) temperature of material is decreased
 (b) temperature of material is increased
 (c) number of free electrons available become more
 (d) none of the above is correct
 Ans: c
254. If the efficiency of a machine is to be high, what should be low ?
 (a) Input power (b) Losses
 (c) True component of power (d) kWh consumed
 (e) Ratio of output to input
 Ans: b
255. When electric current passes through a metallic conductor, its temperature rises. This is due to
 (a) collisions between conduction electrons and atoms
 (b) the release of conduction electrons from parent atoms
 (c) mutual collisions between metal atoms
 (d) mutual collisions between conducting electrons
 Ans: a
256. Two bulbs of 500 W and 200 W rated at 250 V will have resistance ratio as
 (a) 4 : 25 (b) 25 : 4
 (c) 2 : 5 (d) 5 : 2
 Ans: c
257. A glass rod when rubbed with silk cloth is charged because
 (a) it takes in proton (b) its atoms are removed
 (c) it gives away electrons (d) it gives away positive charge
 Ans: c
258. Whether circuit may be AC. or D.C. one, following is most effective in reducing the magnitude of the current.
 (a) Reactor (b) Capacitor
 (c) Inductor (d) Resistor
 Ans: d
259. It becomes more difficult to remove
 (a) any electron from the orbit (b) first electron from the orbit
 (c) second electron from the orbit (d) third electron from the orbit
 Ans: d
260. When one leg of parallel circuit is opened out the total current will
 (a) reduce (b) increase
 (c) decrease (d) become zero
 Ans: c

261. In a lamp load when more than one lamp are switched on the total resistance of the load
 (a) increases (b) decreases
 (c) remains same (d) none of the above
 Ans: b
262. Two lamps 100 W and 40 W are connected in series across 230 V (alternating). Which of the following statement is correct ?
 (a) 100 W lamp will glow brighter (b) 40 W lamp will glow brighter
 (c) Both lamps will glow equally bright (d) 40 W lamp will fuse
 Ans: b
263. Resistance of 220 V, 100 W lamp will be
 (a) 4.84 Q (b) 48.4 Q
 (c) 484 ft (d) 4840 Q
 Ans: c
264. In the case of direct current
 (a) magnitude and direction of current remains constant
 (b) magnitude and direction of current changes with time
 (c) magnitude of current changes with time
 (d) magnitude of current remains constant
 Ans: a
265. When electric current passes through a bucket full of water, lot of bubbling is observed. This suggests that the type of supply is
 (a) A.C. (b) D.C.
 (c) any of above two (d) none of the above
 Ans: b
266. Resistance of carbon filament lamp as the applied voltage increases.
 (a) increases (b) decreases
 (c) remains same (d) none of the above
 Ans: b
267. Bulbs in street lighting are all connected in
 (a) parallel (b) series
 (c) series-parallel (d) end-to-end
 Ans: a
268. For testing appliances, the wattage of test lamp should be
 (a) very low (b) low
 (c) high (d) any value
 Ans: c
269. Switching of a lamp in house produces noise in the radio. This is because switching operation produces
 (a) arcs across separating contacts
 (b) mechanical noise of high intensity
 (c) both mechanical noise and arc between contacts
 (d) none of the above
 Ans: a

270. Sparking occurs when a load is switched off because the circuit has high
 (a) resistance (b) inductance
 (c) capacitance (d) impedance
 Ans: b
271. Copper wire of certain length and resistance is drawn out to three times its length without change in volume, the new resistance of wire becomes
 (a) $1/9$ times (b) 3 times
 (c) 9 times (d) unchanged
 Ans: c
272. When resistance element of a heater fuses and then we reconnect it after removing a portion of it, the power of the heater will
 (a) decrease (b) increase
 (c) remain constant (d) none of the above
 Ans: b
273. A field of force can exist only between
 (a) two molecules (b) two ions
 (c) two atoms (d) two metal particles
 Ans: b
274. A substance whose molecules consist of dissimilar atoms is called
 (a) semi-conductor (b) super-conductor
 (c) compound (d) insulator
 Ans: c
275. International ohm is defined in terms of the resistance of
 (a) a column of mercury (b) a cube of carbon
 (c) a cube of copper (d) the unit length of wire
 Ans: a
276. Three identical resistors are first connected in parallel and then in series. The resultant resistance of the first combination to the second will be
 (a) 9 times (b) $1/9$ times
 (c) $1/3$ times (d) 3 times
 Ans: b
277. Which method can be used for absolute measurement of resistances?
 (a) Lorentz method (b) Raleigh method
 (c) Ohm's law method (d) Wheatstone bridge method
 Ans: d
278. Three 6 ohm resistors are connected to form a triangle. What is the resistance between any two corners?
 (a) $3/2 \Omega$ (b) 6Ω
 (c) 4Ω (d) $8/3 \Omega$
 Ans: c
279. Ohm's law is not applicable to
 (a) semi-conductors (b) D.C. circuits
 (c) small resistors (d) high currents
 Ans: a

280. Two copper conductors have equal length. The cross-sectional area of one conductor is four times that of the other. If the conductor having smaller cross-sectional area has a resistance of 40 ohms the resistance of other conductor will be
 (a) 160 ohms (b) 80 ohms
 (c) 20 ohms (d) 10 ohms
 Ans: d
281. A nichrome wire used as a heater coil has the resistance of $2 \Omega/\text{m}$. For a heater of 1 kW at 200 V, the length of wire required will be
 (a) 80 m (b) 60 m
 (c) 40 m (d) 20 m
 Ans: a
282. Temperature co-efficient of resistance is expressed in terms of
 (a) ohms/ $^{\circ}\text{C}$ (b) mhos/ohm/ $^{\circ}\text{C}$
 (c) ohms/ohm/ $^{\circ}\text{C}$ (d) mhos/ $^{\circ}\text{C}$
 Ans: c
283. Which of the following materials has the least resistivity?
 (a) Zinc (b) Lead
 (c) Mercury (d) Copper
 Ans: d
284. When current flows through heater coil it glows but supply wiring does not glow because
 (a) current through supply line flows at slower speed
 (b) supply wiring is covered with insulation layer
 (c) resistance of heater coil is more than the supply wires
 (d) supply wires are made of superior material
 Ans: c
285. The condition for the validity under Ohm's law is that
 (a) resistance must be uniform
 (b) current should be proportional to the size of the resistance
 (c) resistance must be wire wound type
 (d) temperature at positive end should be more than the temperature at negative end
 Ans: a
286. Which of the following statement is correct?
 (a) A semi-conductor is a material whose conductivity is same as between that of a conductor and an insulator
 (b) A semi-conductor is a material which has conductivity having average value of conductivity of metal and insulator
 (c) A semi-conductor is one which conducts only half of the applied voltage
 (d) A semi-conductor is a material made of alternate layers of conducting material and insulator
 Ans: a
287. A rheostat differs from potentiometer in the respect that it
 (a) has lower wattage rating
 (b) has higher wattage rating
 (c) has large number of turns
 (d) offers large number of tapping
 Ans: b

288. The weight of an aluminium conductor as compared to a copper conductor of identical cross-section, for the same electrical resistance, is
(a) 50% (b) 60%
(c) 100% (d) 150%
Ans: a

289. An open resistor, when checked with an ohm-meter reads
(a) zero (b) infinite
(c) high but within tolerance (d) low but not zero
Ans: b

290. are the materials having electrical conductivity much less than most of the metals but much greater than that of typical insulators.
(a) Varistors (b) Thermistor
(c) Semi-conductors (d) Variable resistors
Ans: c

291. All good conductors have high
(a) conductance (b) resistance
(c) reluctance (d) thermal conductivity
Ans: a

292. Voltage dependent resistors are usually made from
(a) charcoal (b) silicon carbide
(c) nichrome (d) graphite
Ans: c

293. Voltage dependent resistors are used
(a) for inductive circuits (b) to suppress surges
(c) as heating elements (d) as current stabilizers
Ans: b

294. The ratio of mass of proton to that of electron is nearly
(a) 1840 (b) 1840
(c) 30 (d) 4
Ans: a

295. The number of electrons in the outer most orbit of carbon atom is
(a) 3 (b) 4
(c) 6 (d) 7
Ans: b

296. With three resistances connected in parallel, if each dissipates 20 W the total power supplied by the voltage source equals
(a) 10 W (b) 20 W
(c) 40 W (d) 60 W
Ans: d

297. A thermistor has
(a) positive temperature coefficient (b) negative temperature coefficient
(c) zero temperature coefficient (d) variable temperature coefficient
Ans: c

298. If I , R and t are the current, resistance and time respectively, then according to Joule's law heat produced will be proportional to
 (a) $I^2 R t$ (b) $I^2 R t$
 (c) $I^2 R^2 t$ (d) $I^2 R^2 t^*$
 Ans: a
299. Nichrome wire is an alloy of
 (a) lead and zinc (b) chromium and vanadium
 (c) nickel and chromium (d) copper and silver
 Ans: c
300. When a voltage of one volt is applied, a circuit allows one micro ampere current to flow through it. The conductance of the circuit is
 (a) 1 n-mho (b) 106 mho
 (c) 1 milli-mho (d) none of the above
 Ans: a
301. Which of the following can have negative temperature coefficient?
 (a) Compounds of silver (b) Liquid metals
 (c) Metallic alloys (d) Electrolytes
 Ans: d
302. Conductance : mho ::
 (a) resistance : ohm (b) capacitance : henry
 (c) inductance : farad (d) lumen : steradian
 Ans: a
303. 1 angstrom is equal to
 (a) 10^{-8} mm (b) 10^{-6} cm
 (c) 10^{-10} m (d) 10~14 m
 Ans: c
304. One newton meter is same as
 (a) one watt (b) one joule
 (c) five joules (d) one joule second
 Ans: b

2. BASIC ELECTRONICS

1. Electron-hole pair are produced by
(a) recombination
(c) ionization
(b) thermal energy
(d) doping
2. Recombination is when
(a) an electron falls into a hole
(b) a positive and a negative ion bond together
(c) a valence electron becomes a conduction electron
(d) a crystal is formed
3. Each atom in a silicon crystal has
(a) four valence electrons
(b) four conduction electrons
(c) eight valence electrons, four of its own and four shared
(d) no valence electrons because all are shared with other atoms
4. The current in a semiconductor is produced by
(a) electrons only
(c) negative ions
(b) holes only
(d) both electrons and holes
5. The process of adding an impurity to an intrinsic semiconductor is called
(a) doping
(c) atomic modification
(b) recombination
(d) ionization
6. A trivalent impurity is added to silicon to create
(a) germanium
(c) an n-type semiconductor
(b) a p-type semiconductor
(d) a depletion region
7. The purpose of pentavalent impurity is to
(a) reduce the conductivity
(c) increase the number of free electrons
(b) increase the number of holes
(d) create minority carriers
8. For a silicon diode, the value of the forward-bias voltage typically
(a) must be greater than 0.3V
(b) must be greater than 0.7V
(c) depends on the width of depletion region
(d) depends on the concentration of majority carriers
9. When forward biased, a diode
(a) blocks current
(c) has a high resistance
(b) conducts current
(d) drops a large voltage
10. When a voltmeter is placed across a forward-biased diode, it will read a voltage approximately equal to
(a) the bias battery voltage
(c) the diode barrier potential
(b) 0V
(d) the total circuit voltage

11. The term bias means
 - (a) the ratio of majority carriers to minority carriers
 - (b) the amount of current across a diode
 - (c) a dc voltage is applied to control the operation of a device
 - (d) none of the above
12. In a LED, the light is produced by a solid state process called as
 - (a) light radiation
 - (b) electroluminescence
 - (c) light multiplication
 - (d) phosphorescence
13. Efficiency of LED is given by
 - (a) light to light conversion
 - (b) light to electrical conversion
 - (c) electrical power to visible light conversion
 - (d) none of above
14. The wavelength of the light emitted and its color depends on the
 - (a) forward voltage
 - (b) forward current
 - (c) band gap energy of the material forming P-N junction
 - (d) none of the above
15. The material used for red LED is
 - (a) GaP
 - (b) GaAsP
 - (c) AlGaAs
 - (d) Above all
16. A silicon diode is in series with a $1.0\text{ k}\Omega$ resistor and a 5V battery. If the anode is connected to the positive battery terminal, the cathode voltage with respect to the negative battery terminal is
 - (a) 0.7V
 - (b) 0.3V
 - (c) 5.7V
 - (d) 4.3V
17. Although current is blocked in reverse bias,
 - (a) there is some current due to majority carrier
 - (b) there is very small current due to minority carriers
 - (c) there is an avalanche current
 - (d) none of the above
18. The average value of a half wave rectified voltage with a peak value of 200V is
 - (a) 63.7V
 - (b) 127.3V
 - (c) 141V
 - (d) 0V
19. When a 60Hz sinusoidal voltage is applied to the input of a half-wave rectifier, the output frequency is
 - (a) 120Hz
 - (b) 30Hz
 - (c) 60Hz
 - (d) 0Hz
20. The peak value of the input to a half-wave rectifier is 10V. The approximate peak value of the output is
 - (a) 10V
 - (b) 3.18V
 - (c) 10.7V
 - (d) 9.3V

21. The average value of full-wave rectified voltage with a peak value of 75V is
 (a) 53V (b) 47.8V
 (c) 37.5V (d) 23.9V
22. When a 60Hz sinusoidal voltage is applied to the input of a full-wave rectifier, the output frequency is
 (a) 120Hz (b) 60Hz
 (c) 240Hz (d) 0Hz
23. The total secondary voltage in a center-tapped full-wave rectifier is 125Vrms. Neglecting the diode drop, the rms output voltage is
 (a) 125V (b) 177V
 (c) 100V (d) 62.5V
24. When the peak output voltage is 100V, the PIV for each diode in a center-tapped full-wave rectifier is (neglecting the diode drop)
 (a) 100V (b) 200V
 (c) 141V (d) 50V
25. The ideal dc output voltage of a capacitor-input filter is equal to
 (a) The peak value of the rectified voltage
 (b) The average value of the rectified voltage
 (c) The rms value of the rectified voltage
 (d) None of the above
26. If the load resistance of a capacitor-filtered full-wave rectifier is reduced, the ripple voltage
 (a) increases (b) decreases
 (c) is not affected (d) has a different frequency
27. If one of the diodes in a bridge full-wave rectifier opens, the output is approximately
 (a) 0V
 (b) one-fourth the amplitude of the input voltage
 (c) a half-wave rectified voltage
 (d) a 120Hz voltage
28. The cathode of zener diode in a voltage regulator is normally
 (a) more positive than the anode (b) more negative than the anode
 (c) at +0.7 V (d) grounded
29. If a certain zener diode has a zener voltage of 3.6V, it operates in
 (a) regulated breakdown (b) Zener breakdown
 (c) forward conduction (d) avalanche breakdown
30. The data sheet for a particular zener gives $V_Z=10V$ at $I_{ZT}=500mA$. Z_Z for these conditions is
 (a) 50Ω (b) 20Ω
 (c) 10Ω (d) unknown
31. An LED
 (a) emits light when reverse biased (b) senses light when reverse biased
 (c) emits light when forward biased (d) acts as a variable resistance

32. When operated in cutoff and saturation, the transistor acts like
(a) a linear amplifier (b) a switch
(c) a variable capacitor (d) a variable resistance
33. In a voltage divider biased npn transistor, if the upper voltage-divider resistor (the one connected to VCC) opens,
(a) the transistor goes into cutoff (b) the transistor goes into saturation
(c) the transistor burns out (d) the supply voltage is too high
34. In a voltage divider biased npn transistor, if the lower voltage-divider resistor (the one connected to ground) opens,
(a) the transistor goes into cutoff (b) the transistor goes into saturation
(c) the transistor burns out (d) the supply voltage is too high
35. A certain common-emitter amplifier has a voltage gain of 100. If the emitter bypass capacitor is removed,
(a) The circuit will become unstable (b) the voltage gain will decrease
(c) the voltage gain will increase (d) The Q-point will shift

3. ELECTRICAL UNITS: EQUIVALENTS & FORMULAE

1. One IIP = [a]
 (a) 746 watts (b) 756 watts (c) 860 watts (d) 856 watts
2. Torque in ft. lbs. = [b]
 (a) $HP \times 33000 / (RPM \times 2)$ (b) $IIP \times 2 / (RPM \times 33000)$
 (b) $HP \times RPM / (2 \times 33000)$ (d) $RPM \times 2 / (HP \times 33000)$
3. Current = [a]
 (a) Watts/Volts (b) Volts/Watts
 (c) Kilowatt/Volts (d) Kilovolt/watt
4. Motor output in HP= [a]
 (a) $KW \text{ input} \times \text{efficiency} / 0.746$ (b) $KW \text{ input} \times 0.746 / \text{efficiency}$
 (c) $\text{Efficiency} \times 0.746 / KW \text{ input}$ (d) $0.746 / (KW \text{ input} \times \text{efficiency})$
5. kVA equal to [d]
 (a) $1000 \times \text{Amps} / \text{volts}$ (b) $\text{volts} \times \text{Amps} \times 1000$
 (c) $\text{Volts} \times 1000 / \text{Amps}$ (d) $\text{Amps} \times \text{volts} / 1000$
6. Power factor = [a]
 (a) True Power/Apparent power (b) Apparent power/True power
 (c) Average power/True power (d) Apparent power/Average power
7. True power in three-phase circuit in Kilowatt is [b]
 (a) $1.414 \times \text{volts} \times \text{amperes} \times pf / 1000$ (b) $1.73 \times \text{volts} \times \text{amperes} \times pf / 1000$
 (c) $\text{Volts} \times \text{Amperes} \times pf / 1000$ (d) $\text{Volts} \times \text{Amperes} \times 1000 / pf$
8. Amperes drawn by single-phase motor are equal to [c]
 (a) $\text{Efficiency} \times \text{Volts} \times pf / (HP \times 746)$ (b) $\text{Efficiency} \times pf / (\text{volt} \times HP \times 746)$
 (c) $HP \times 746 / (\text{Efficiency} \times \text{volts} \times pf)$ (d) $HP \times 746 \times \text{volts} / (\text{Efficiency} \times pf)$
9. Amperes drawn by three phase motor are equal to [c]
 (a) $\text{Efficiency} \times \text{Volts} \times pf / (HP \times 746)$ (b) $\text{Efficiency} \times pf / (\text{volt} \times HP \times 746)$
 (c) $HP \times 746 / (\text{Efficiency} \times \text{volts} \times pf \times 1.73)$ (d) $HP \times 746 \times \text{volts} / (\text{Efficiency} \times pf)$
10. One Kilowatt = [a]
 (a) 1.314 HP (b) 13.41 HP (c) 134.1 HP (d) 1341 IIP
11. One Kilowatt = [d]
 (a) 1360 Metric HP (b) 136 Metric HP
 (c) 13.60 Metric IIP (d) 1.360 Metric HP

3. ELECTRICAL UNITS: EQUIVALENTS & FORMULAE

1. One HP = [a]
 (a) 746 watts (b) 756 watts (c) 860 watts (d) 856 watts
2. Torque in ft. lbs. = [b]
 (a) $HP \times 33000 / (RPM \times 2)$ (b) $HP \times 2 / (RPM \times 33000)$
 (c) $HP \times RPM / (2 \times 33000)$ (d) $RPM \times 2 / (HP \times 33000)$
3. Current = [a]
 (a) Watts/Volts (b) Volts/Watts
 (c) Kilowatt/Volts (d) Kilovolt/watt
4. Motor output in HP = [a]
 (a) $KW \text{ input} \times \text{efficiency} / 0.746$ (b) $KW \text{ input} \times 0.746 / \text{efficiency}$
 (c) $\text{Efficiency} \times 0.746 / KW \text{ input}$ (d) $0.746 / (KW \text{ input} \times \text{efficiency})$
5. kVA equal to [d]
 (a) $1000 \times \text{Amps} / \text{volts}$ (b) $\text{volts} \times \text{Amps} \times 1000$
 (c) $\text{Volts} \times 1000 / \text{Amps}$ (d) $\text{Amps} \times \text{volts} / 1000$
6. Power factor = [a]
 (a) True Power/Apparent power (b) Apparent power/True power
 (c) Average power/True power (d) Apparent power/Average power
7. True power in three-phase circuit in Kilowatt is [b]
 (a) $1.414 \times \text{volts} \times \text{amperes} \times \text{pf} / 1000$ (b) $1.73 \times \text{volts} \times \text{amperes} \times \text{pf} / 1000$
 (c) $\text{Volts} \times \text{Amperes} \times \text{pf} / 1000$ (d) $\text{Volts} \times \text{Amperes} \times 1000 / \text{pf}$
8. Amperes drawn by single-phase motor are equal to [c]
 (a) $\text{Efficiency} \times \text{Volts} \times \text{pf} / (HP \times 746)$ (b) $\text{Efficiency} \times \text{pf} / (\text{volt} \times HP \times 746)$
 (c) $HP \times 746 / (\text{Efficiency} \times \text{volts} \times \text{pf})$ (d) $HP \times 746 \times \text{volts} / (\text{Efficiency} \times \text{pf})$
9. Amperes drawn by three phase motor are equal to [c]
 (a) $\text{Efficiency} \times \text{Volts} \times \text{pf} / (HP \times 746)$ (b) $\text{Efficiency} \times \text{pf} / (\text{volt} \times HP \times 746)$
 (c) $HP \times 746 / (\text{Efficiency} \times \text{volts} \times \text{pf} \times 1.73)$ (d) $HP \times 746 \times \text{volts} / (\text{Efficiency} \times \text{pf})$
10. One Kilowatt = [a]
 (a) 1.314 HP (b) 13.41 HP (c) 134.1 HP (d) 1341 HP
11. One Kilowatt = [d]
 (a) 1360 Metric HP (b) 136 Metric HP
 (c) 13.60 Metric HP (d) 1.360 Metric HP

12. One Kwh = [c]
 (a) 34.13 BTU (b) 44.13 BTU
 (c) 3.413 BTU (d) 4.413 BTU
13. One Kwh = [b]
 (a) 1000 calories (b) 860 calories (c) 740 calories (d) 970 calories
14. One BTU = [a]
 (a) 0.2520 calories (b) 2.520 calories (c) 25.20 calories (d) 252.0 calories
15. One Calorie = [d]
 (a) 39.68 BTU (b) 4.968 BTU (c) 49.68 BTU (d) 3.968 BTU
16. One foot pound = [a]
 (a) 0.1383 M Kg (b) 1.383 M Kg (c) 13.83 M Kg (d) 138.3 M Kg
17. One BTU = [d]
 (a) 0.1076 M Kg (b) 1.076 M Kg (c) 10.76 M Kg (d) 107.6 M Kg
18. One Kilowatt = [b]
 (a) 202 M Kg/sec (b) 102 M Kg/sec (c) 20.2 M Kg/sec (d) 10.2 M Kg/sec
19. One Electrical Unit = [a]
 (a) 1 Kwh (b) 1 Kw (c) 1 kVA (d) Watt
20. Power factor = [a]
 (a) R/Z (b) Z/R (c) V/I (d) I/V
21. The current rating of PVC insulated and PVC sheathed four core , armoured aluminium cable of size 120 sq mm (laid direct in ground) is approximately [b]
 (a) 80 amps (b) 185 amps (c) 290 amps (d) 320 amps
22. The current rating of PVC insulated and PVC sheathed four core , armoured aluminium cable of size 70 sq mm (laid in duct) is approximately [a]
 (a) 115 amps (b) 210 amps (c) 290 amps (d) 350 amps
23. The current rating of PVC insulated and PVC sheathed four core , armoured aluminium cable of size 50 sq mm (laid in air) is approximately [b]
 (a) 65 amps (b) 105 amps (c) 200 amps (d) 250 amps

- 24 The current rating of PVC insulated and PVC sheathed four core , armoured aluminium cable of size 35 sq mm (laid direct in ground) is approximately [a]
(a) 92 amps (b) 160 amps (c) 200 amps (d) 250 amps
- 25 The current rating of PVC insulated and PVC sheathed four core , armoured aluminium cable of size 25 sq mm (laid direct in ground) is approximately [b]
(a) 55 amps (b) 76 amps (c) 90 amps (d) 150 amp

4. CELLS

1. An electrolyte use in train lighting cell is the mixture of [c]
 a) Sulphuric acid and tap water
 b) Sulphuric acid and mineral water
 c) Sulfuric acid and demineralized/distilled water
 d) None of the above
2. When cell is fully charged, the positive plate becomes [a]
 a) Lead peroxide c) Lead sulfate
 b) Spongy lead d) None
3. When the lead acid cell is fully charged the negative plate becomes [c]
 a) Lead peroxide c) Lead sulfate
 b) Spongy lead d) None
4. The capacity of cell is measured in [a]
 a) Ampere hour c) Amperes
 b) Watt hour d) Watts
5. Internal resistance of lead acid cell is mainly due to [d]
 a) Size of plates c) Nature of electrolyte
 b) Distance between the plates d) All the above
6. Trickle charging of storage battery help to [a]
 a) Compensate for internal losses c) Increase its capacity
 b) Maintains proper electrolyte d) None
7. The capacity of Battery used in 110V T.L system [a]
 a) 120AH c) 320Ah
 b) 210Ah d) 90AH
8. SPGR of fully charged cell [a]
 a) 1.220 c) 1.140
 b) 1.180 d) 1.100
9. SPGR of half charged cell [a]
 a) 1.210 b) 1.140
 b) 1.175 c) 1.100
10. SPGR of fully discharged cell is [d]
 a) 1.210 c) 1.200
 b) 1.175 d) 1.140
11. Total number of cells available in TL flooded Battery of 110V system [a]
 a) 54 d) 18
 b) 56
 c) 24

12. Sulphation occurs due to [d]
 a) Cells kept under discharged condition
 b) Cells kept under not fully charged condition
 c) Cells over charged
 d) All the above
13. The codal life of lead acid TL/AC cells is [a]
 a) 4 c) 2
 b) 3 d) None
14. The capacity of batteries used for RMPU AC coaches is [d]
 a) 525 AH c) 800 AH
 b) 400 AH d) 1100 AH
15. VRLA Batteries works on [a]
 a) Oxygen recombination principle
 b) Hydrogen recombination principle
 c) Hydrogen-oxygen recombination principle
 d) None of the above
16. The VRLA cells can be mounted in a position. [d]
 a) Horizontal c) Slanting
 b) Vertical d) Both a & b
18. Conductivity is the ability of a solution to conduct electrical current commonly expressed in [c]
 a) Amperes
 b) Watt
 c) Micro mhos/cm
 d) None
19. Conductivity of DM water is measured by [d]
 a) Conductivity meter c) pH meter
 b) Universal solution d) all of the above
20. Acceptable quality of treated water conductivity is in micro mhos/cm [a]
 a) <10 c) 40
 b) <30 d) None
21. Acceptable quality of treated water PH value will be [a]
 a) 6.8 to 7.2 c) 8.5 to 10
 b) 7.5 to 8.5 d) None
22. VRLA Batteries means [a]
 a) Valve regulated lead acid batteries b) Voltage regulated lead acid
 c) Both a & b d) None

23. SMF Batteries stands for [a]
 a) Scaled maintenance free batteries b) Self maintenance free batteries
 c) a&b d) None
24. Frequent topping up of distilled water in VRLA cells [b]
 a) Required b) Not required
 c) Sometimes required d) None
25. Self discharge of VRLA Battery _____ percentage of capacity for week [a]
 a) 0.5% to 1% b) 2%
 c) 3% d) 4%
26. VRLA Battery separators can be of [c]
 a) The gelled electrolyte type b) The absorbed electrolyte type
 c) a & b d) None of the above
27. For VRLA Battery, every 1 degree C in temperature, the charge/float voltage is to be reduced by _____ per cell [a]
 a) 3mv b) 5 mv
 c) 1 mv d) 6 mv
28. Codal life of VRLA battery is [a]
 a) 4 years b) 5 years
 c) 3 years d) 7 years
29. Charging voltage/ Current ripple factor for VRLA batteries should less than [b]
 a) less than 5 % b) less than 2 %
 c) less than 15 % d) none
30. The containers and covers of VRLA batteries are made up of [a]
 a) PPCP (poly-Propylene co-polymer) b) Hard rubber
 c) PVC d) None
31. Train Lighting mono block 120 AH battery belongs to [a]
 a) Lead acid battery b) Nickel iron battery
 c) Nickel cadmium battery d) All the above
32. The specific gravity of the concentrated sulphuric acid is [a]
 a) 1.840 b) 1.200
 c) 1.220 d) 1.180
33. The specific gravity of the electrolyte used in TL cells is [b]
 a) 1.800 b) 1.200
 c) 1.100 d) 1.180
34. The positive plate of lead acid is made of [a]
 a) Lead peroxide b) Spongy lead
 c) Lead sulphate d) None

35. The secondary cell [a]
a) Once discharged it can be charged
b) Once discharged it cannot be charged
c) Once discharged it had to throw away
d) None
36. When fully charged lead acid cell is discharged, the positive and negative plates becomes [c]
a) Lead peroxide b) Spongy lead
c) Lead sulphate d) None
37. When the lead acid cell is recharged the specific gravity of the electrolyte [a]
a) Increases b) Decreases
c) As it is d) None
38. Battery capacity depends upon [d]
a) Size and no. of plates b) Quantity of active material present
c) Quantity of electrolyte d) All the above
39. The capacity of battery is expressed in terms of [b]
a) Current rating b) AH rating
c) Voltage rating d) VH rating
40. The number of positive plates in a secondary cell is always less than the negative plates by [a]
a) 1 b) 2
c) 3 d) None
41. Normal charge of battery is [a]
a) $1/40^{\text{th}}$ of the rated capacity of the battery
b) $1/20^{\text{th}}$ of the rated capacity of the battery
c) $1/5^{\text{th}}$ of the rated capacity of the battery
d) $1/30^{\text{th}}$ of the rated capacity of the battery
42. Initial charge of the battery is [c]
a) $1/10^{\text{th}}$ of the rated capacity of the battery
b) $1/20^{\text{th}}$ of the rated capacity of the battery
c) $1/30^{\text{th}}$ of the rated capacity of the battery
d) $1/5^{\text{th}}$ of the rated capacity of the battery
43. Batteries are provided in Train coach to provide [a]
a) Amenities to public such as lights and fans
b) Separate excitation of alternator field
c) Self excitation of alternator field
d) None of the above
44. The capacity of Battery used in 110V T.L system [a]
a) 120 AH b) 210 AH
c) 320 AH d) 90 Ah

45. Number of mono block batteries used in 110 V TL systems [a]
 a) 18 b) 12
 c) 24 d) 9
46. Over charge results in [d]
 a) Higher temperature of electrolyte b) Corrosion of plates
 c) Oxidation of the separators and loss of water d) All the above
47. Undercharging results in [d]
 a) Irreversible Sulphation b) Reversal of cells
 c) Loss of the capacity d) All the above
48. Reverse polarity is mainly due to [a]
 a) Deep discharge b) RR Unit setting is high
 c) Battery kept in fully charged condition d) None
49. Excessive gassing and high SPGR. [a]
 a) Alternator/regulator setting high b) Alternator/regulator setting low
 c) Lack of electrolyte d) None
50. Hydrometer used in TL system is [a]
 a) Syringe type hydro meter b) Suction hydrometer
 c) Both a and b d) None of the above
51. If water consumption in particular cell is more due to [d]
 a) Hermetically sealed joint leak b) Higher charging current
 c) Leakage of electrolyte due to cracks in container d) All of the above
52. Initial charging rate of lead acid battery is [d]
 a) 0.1XC10 capacity b) 0.2XC10 Capacity
 c) 0.05XC10 Capacity d) 0.033XC10 capacity
53. TL 110 V TL coaches are provided with following batteries [a]
 a) Mono block batteries b) Individual cells
 c) Both a & b d) None
54. Conductivity of DM water is measured by [d]
 a) Conductivity meter b) Universal Solution
 c) PH meter d) All of the above
55. Best quality of treated water conductivity is in micro mhos/cm [a]
 a) <10 b) <35
 c) <40 d) None
56. Best quality of treated water PH Value will be [a]
 a) 6.8 to 7.2 b) 7.5 to 8.5
 c) 8.5 to 10 d) None

5. ALTERNATOR & RRU

1. Alternator is a device that converts [a]
 - a. Mechanical energy into electrical energy
 - b. Electrical energy into mechanical energy
 - c. Chemical energy into electrical energy
 - d. None of the above
2. Both field winding and 3 phase winding of AC coach alternator 120V are provided on a
 - a. Stator
 - b. Rotor
 - c. Both a and b
 - d. None
3. TL/AC coach alternator 120V designed to have [a]
 - a. Residual magnetism
 - b. Permanent magnetism
 - c. Both a and b
 - d. None of the above
4. Recommended Cut in speed of 4.5 KW TL alternator is by RDSO with MA RR unit a
 - a. 357 rpm
 - b. 600 rpm
 - c. 1100 rpm
 - d. 2500 rpm
5. Minimum speed for full output of 4.5 KW 120V TL alternator, recommended by RDSO is [b]
 - a. 357 rpm
 - b. 600 rpm
 - c. 1500 rpm
 - d. 2500 rpm
6. Maximum speed of TL/AC coach alternator is [d]
 - a. 400 rpm
 - b. 800 rpm
 - c. 1500 rpm
 - d. 2500 rpm
7. Field coils of 120V TL/AC coach alternator are connected in [a]
 - a. Series
 - b. Parallel
 - c. Star
 - d. Delta
8. Three phase windings of 120V TL/AC coach alternator are connected in [a]
 - a. Star
 - b. Delta
 - c. Series
 - d. Parallel
9. Size of V belts used for driving 110V 4.5KW TL alternators [a]
 - a. C122
 - b. C118
 - c. C124
 - d. None
10. Size of V belt used for driving 110V, 18, 22.5KW AC coach Alternators [a]
 - a. C122
 - b. C118
 - c. C124
 - d. None

11. Number of V belts used for driving 110V 4.5KW TL alternator is _____ [a]
 a. 4 c. 12
 b. 6 d. None
12. Number of V belts used for driving 110V 18KW & 25KW AC alternator is _____ [c]
 a. 4 c. 12
 b. 6 d. None
13. DC output voltage of Alternator /Regulator of 110V TL/AC coach is [a]
 a. (110-140) DC c. (90-120) DC
 b. (70-90) DC d. None
14. Rated DC output current of 4.5KW 110V Alternator is _____ [a]
 a. 37.5A c. 43A
 b. 19A d. None
15. Rated DC output current of 18KW 110V Alternator is _____ [c]
 a. 193A c. 135A
 b. 175A d. None
16. Rated DC output current of 25KW 110V Alternator is _____ [a]
 a. 193A c. 135A
 b. 175A d. None
17. Pitch circle diameter of Axle pulley of 110V TL system [c]
 a. 200mm c. 572.6mm
 b. 140mm d. None
18. Pitch circle diameter of Axle pulley of 110V AC coach system [a]
 a. 200mm c. 572.6mm
 b. 584mm d. None
19. As per the latest SMI, the voltage setting of alternator 4.5KW 110V for passenger train with flooded batteries is _____ [c]
 a. 127V DC c. 128.5V DC
 b. 124V DC d. None
20. As per the latest SMI, the voltage setting of ac alternator 18KW 110V with flooded batteries is [c]
 a. 129V DC c. 128V DC
 b. 124V DC d. None
21. As per the latest SMI, the voltage setting of alternator 4.5KW 110V for passenger train with VRLA batteries is _____ [b]
 a. 123+/-0.5V DC c. 121+/-0.5V DC
 b. 128.5+/-0.5V DC d. None

22. As per the latest SMI _____ the voltage setting of alternator 4.5KW 110V for mail/express trains with VRLA batteries is _____ [b]
- a. 123+/-0.5V DC c. 121+/-0.5V DC
b. 128.5+/-0.5V DC d. None
23. As per the latest SMI the voltage setting of alternator 4.5KW 110V for super fast trains with VRLA batteries is _____ [b]
- a. 123+/-0.5V DC c. 121+/-0.5V DC
b. 128.5+/-0.5V DC d. None
24. As per the latest SMI the voltage setting of AC coach alternator 110V for passenger train with VRLA batteries is _____ [a]
- a. 128+/-0.5V DC c. 126+/-0.5V DC
b. 127+/-0.5V DC d. None
25. As per the latest SMI the voltage setting of AC coach alternator 110V for Mail/express train with VRLA batteries is _____ [a]
- a. 128+/-0.5V DC c. 126+/-0.5V DC
b. 127+/-0.5V DC d. None
26. As per the latest SMI the voltage setting of AC coach alternator 110V for super fast train with VRLA batteries is _____ [a]
- a. 128+/-0.5V DC
b. 127+/-0.5V DC
c. 126+/-0.5V DC
d. None
27. The purpose of TL Alternator used in Railways. [d]
- a. Charging the coach battery on train run
b. Working of lights and fans in the coach during train run
c. Sharing the load to other coaches in case of emergency
d. All the three above
28. The capacity of alternator used for BG coach 110V Train Lighting system. [b]
- a. 3KW c. 12KW
b. 4.5KW d. None
29. The capacity of alternator used for BG coach 110V roof mounted AC coach [c]
- a. 12KW c. 25KW
b. 18KW d. None
30. The capacity of alternator used for BG coach 110V under slung AC coach. [c]
- a. 25KW
b. 12KW
c. 18KW
d. None

31. The PCD (pitch circle diameter) of 25KW 110V alternator pulleys is [b]
 a. 584mm +/- 0.4mm
 b. 200+/-0.3 mm
 c. 100 mm
 d. None
32. The field resistance of 4.5KW 110V TL alternator has [a]
 a. 4.5 +/-0.5 ohms
 b. 6.0+/-0.5 ohms
 c. 10+/-0.5 ohms
 d. None
33. The resistance between two phases of 4.5KW 110V TL alternator is [a]
 a. 0.4 +/-0.05 ohms
 b. 0.8 +/-0.10 ohms
 c. 4.5 +/-0.5 ohms
 d. None
34. The purpose of providing anti rotating clamp near suspension arrangement of alternator is [d]
 a. Not to rotate suspension pin of alternator
 b. Not to damage the nylon bushes of alternator/ suspension bracket
 c. Not to damage the suspension bracket/boss of alternator
 d. All of the above
35. The insulation material recommended for alternator windings of 4.5 KW 110V shall be [c]
 _____ class.
 a. A
 b. B
 c. F
 d. None
36. The voltage setting of Alt/RR unit is to be set in far with current and RPM for 4.5KW is [a]
 a. Half rated capacity of the alt as load as 1500 RPM
 b. ¼ rated capacity of the alt as load at 1000 RPM
 c. Full rated capacity of alt as load at 2550 RPM
 d. None of the above
37. While measuring insulation resistance of 110V alternator/rectifier cum regulator the rating of megger is to be used is [b]
 a. 100V DC megger
 b. 500V DC megger
 c. Both a and b
 d. None
38. The resistance between two phase of 25KW KEL alternator is about [a]
 a. 0.0530746 ohms
 b. 0.034 to 0.038
 c. 44.2 mille ohms
 d. None

39. The field resistance of 25KW KEL alternator about [a]
 a. 9.7568 ohms c. 10.72 ohms
 b. 8 ± 0.5 ohms d. None
40. The gap between two halves of axle pulley to be maintained is [a]
 a. 3.0 ± 0.5 mm
 b. $6 \text{ mm} \pm 0.5$ mm
 c. $4 \text{ mm} \pm 0.5$ mm
 d. None
41. Codal life of 4.5, 18, 22.75 & 25 KW alternator / RR unit [a]
 a. 12 years c. 15 years
 b. 25 years d. None
42. Codal life of 120 AH VRLA Battery [b]
 a. 5 years c. 3 years
 b. 4 years d. None
43. Codal life of 120 AH Flooded Battery [b]
 a. 5 years c. 3 years
 b. 4 years d. None
44. Codal life of Battery charger [a]
 a. 12 years c. 25 years
 b. 15 years d. None
45. Codal life of Coach wiring [b]
 a. 12 years c. 20 years
 b. 15 years d. None
46. Codal life of Carriage fans [a]
 a. 10 years c. 15 years
 b. 12 years d. None
47. The distance to be maintained while fixing axle pulley on wheel, from wheel hub to axle pulley outer wedge for 25 KW alternator is [a]
 a. 225 mm c. 145 mm
 b. 240 mm d. None
48. The distance to be maintained while fixing axle pulley on wheel, from wheel hub to axle pulley outer wedge for 18 KW alternator is [b]
 a. 225 mm
 b. 240 mm
 c. 145 mm
 d. None

49. The distance to be maintained while fixing axle pulley on wheel, from wheel hub to axle pulley outer wedge for 4.5 KW alternator is [c]
 a. 225 mm c. 145 mm
 b. 240 mm d. None
50. 'V' belt dropping/smoking/burning due to mechanical failure [c]
 a. Brake block jamming c. Both a and b
 b. Guide cups of damper's have dropped d. None
51. 'V' belt dropping/smoking/burning due to electrical failure [d]
 a. Load on Alt is heavy c. Loose/excessive tension
 b. Wrong alignment d. All of the above
52. The minimum insulation resistance to be maintained for 4.5KW alternator is [c]
 a. 1 Mega ohm c. 20 Mega ohm
 b. 2 Mega ohm d. None
53. The minimum insulation resistance to be maintained for 18 & 25 KW alternators [a]
 a. 20 mega ohm c. 5 Mega ohm
 b. 2 Mega ohm d. None
54. No. of ET's used in 25 KW RR Unit MA type [c]
 a. 2 c. Zero
 b. 1 d. None
55. No. of MA's used in 25 KW MA type RR Unit [a]
 a. 2 c. Zero
 b. 1 d. None
56. The type of suspension bushes are to be provided TL/AC alternators/ suspension bracket as per RDSO specification no RDSO / PE/AC/0006/99 (Rev.0) [b]
 a. Cast nylon bushes c. MS bushes
 b. Nylon 66 bushes d. All of the above
57. Residual magnetism lost in the alternator core the reason is [c]
 a. Field polarity changed c. Both a and b
 b. Alternator is in idle condition for long time d. None of the above
58. As per the Railway Board letter No. 2006/Elec(G)/138/3Pt. I unit Exchange spare recommended for alternators and Regulators for TL/AC depot [b]
 a. 5% c. 15%
 b. 10% d. None
59. ERRU stands for [a]
 a. Electronic Rectifier cum Regulator Unit
 b. Electromagnetic Rectifier cum Regulator unit
 c. Electrostatic Rectifier cum Regulator Unit
 d. None

60. IGBT stands for
a. Insulated Gate Bipolar Transistor
b. Injection Gate Bipolar Transistor
c. Indicator gate Bipolar Transistor
d. None

[a]

61. IGBT is
a. Fast switching device
b. Slow switching device
c. Very fast switching device
d. None

62. The size of capacity of fuses to be provided for 25kW ERRU in phase circuit
a. 160A
b. 200A
c. 220A
d. None

[c]

63. UVC used in ERRU must be
a. Suitable to work with all capacities
b. Suitable to work with all makes
c. Both a and b
d. None

[c]

64. The battery charging current limit with 4.5kW ERRU is to be set at
a. 24A +/-2A
b. 12A +/- 2A
c. 36A +/- 2A
d. None

[a]

65. TL alternator 4.5 KW 130 V is _____
a. 4 V belts drive machine
b. 6 V belts drive machine
c. 12 V belts drive machine
d. None of the above

[a]

66. Non drive end bearing of 4.5 kw 120v 4.5kw TL alternator is _____
a) SKF 6309 b) SKF NU311 c) SKF 6200 d)None

[a]

67. Driving end bearing of 4.5 kw 120 V 4.5 kw TL alternator is _____
a) SKF 6309 b) SKF NU311 c) SKF 6200 d)None

[b]

68. Recommended Cut in speed of 4.5 kw TL alternator is by RDSO with
MA RR unit
a) 357 rpm b) 600 rpm c) 1100 rpm d)2500rpm

[a]

69. Minimum speed for full output of 4.5 kw 120V TL alternator,
Recommended by RDSO is
a) 357 rpm b) 600 rpm c) 1100 rpm d)2500rpm

[b]

60. IGBT stands for [a]
 a. Insulated Gate Bipolar Transistor
 b. Injection Gate Bipolar Transistor
 c. Indicator gate Bipolar Transistor
 d. None
61. IGBT is
 a. Fast switching device
 b. Slow switching device
 c. Very fast switching device
 d. None
62. The size of capacity of fuses to be provided for 25kW ERRU in phase circuit [c]
 a. 160A
 b. 200A
 c. 220A
 d. None
63. UVC used in ERRU must be [c]
 a. Suitable to work with all capacities
 b. Suitable to work with all makes
 c. Both a and b
 d. None
64. The battery charging current limit with 4.5kW ERRU is to be set at [a]
 a. 24A $\pm$ 2A
 b. 12A $\pm$ 2A
 c. 36A $\pm$ 2A
 d. None
65. TL alternator 4.5 KW 130 V is [a]
 a. 4 V belts drive machine
 b. 6 V belts drive machine
 c. 12 V belts drive machine
 d. None of the above
66. Non drive end bearing of 4.5 kw 120v 4.5kw TL alternator is [a]
 a) SKF 6309 b) SKF NU311 c) SKF 6200 d)None
67. Driving end bearing of 4.5 kw 120 V 4.5 kw TL alternator is [b]
 a) SKF 6309 b) SKF NU311 c) SKF 6200 d)None
68. Recommended Cut in speed of 4.5 kw TL alternator is by RDSO with [a]
 MA RR unit
 a) 357 rpm b) 600 rpm c) 1100 rpm d)2500rpm
69. Minimum speed for full output of 4.5 kw 120V TL alternator, [b]
 Recommended by RDSO is
 a) 357 rpm b) 600 rpm c) 1100 rpm d)2500rpm

70. Field coils of 120V TL/AC coach alternator are connected in [a]
 a) Series b) Parallel c) Star d) Delta
71. Three phase windings of 120V TL/AC coach alternator are connected in [a]
 a) Star b) Delta c) Series d) Parallel
72. Field coils of TL coach alternators are located on [a]
 a) Stator b) Rotor c) Both a and b d) None
73. Each field coil of TL/AC coach alternator embraces _____ total number of there phase winding slots. [a]
 a) Half of the
 b) One fourth of the
 c) Three fourth of the
 d) None
74. Size of V belts used for driving 110V 4.5 kw TL alternators [a]
 a) C122 b) C118 c) C124 d) None
75. Number of V belts used for driving 110 V 4.5 kw TL alternator is [a]
 a) 4 b) 6 c) 12 d) None
76. Numbers of alternator pulleys are available on 4.5 kw TL Alternator. [a]
 a) 1 b) 2 c) 3 d) None
77. Numbers of Alternators pulleys are available on BG AC coach Alternator. [b]
 a) 1 b) 2 c) 3 d) None
78. Residual magnetism retains in _____ [b]
 a) Rotor core b) Stator Core c) Rotor teeth d) None
79. Number of slots are available in stator for 3Phase ac winding in 4.5 KW 120V Alternator [a]
 a) 36 b) 60 c) 18 d) None
80. 3 Phase AC voltages are first produced in ac winding in Alternator by [a]
 a) Residual magnetism b) Permanent magnetism
 c) Both a and b d) None
81. When the rotor of 4.5 kw 120V alternator is rotated by hand the voltage developed in the 3 phase winding will be [a]
 a) 3.5 v b) 12v c) 24v d) None
82. DC output voltage of Alternator/Regulator of 110 V TL/AC coach is [a]
 a) (110-140) DC b) (70-90) DC c) (90-120) DC d) None
83. Rated DC output current of 4.5kw 110v Alternator is [a]
 a) 37.5A b) 19A c) 43A d) None
84. Rated DC output current of 3kw 110v Alternator is [b]
 a) 37.5A b) 19A c) 43A d) None
85. Rated DC output current of 25kw 110v Alternator is [a]
 a) 193A b) 175A c) 135A d) None

86. Pitch circle diameter of Axle pulley of 110v TL system
a) 200mm b) 140mm c) 572.6mm d)None [c]
87. Pitch circle diameter of Axle pulley of 110v AC coach system
a)200mm b) 140mm c) 572.6mm d)None [c]
88. As per the latest SMI, the voltage setting of alternator 4.5kw 110v for Express/ mail trains with flooded batteries is _____
a) 128.5v DC b) 124v DC c) 122v DC d)120v DC [a]
89. As per the latest SMI, the voltage setting of AC coach alternator 110v for passenger train with VRLA batteries is _____
a) 128+/-0.5vDC b) 127 +/- 0.5vDC c) 126 +/-0.5vDC d)None [a]
90. The purpose of TL Alternator used in Railways
a) Charging the coach battery on train run
b) Working of lights and fans in the coach during train run
c) Sharing the load to other coaches in case of emergency
d) All the above [d]
91. The purpose of Ac coach Alternator used in Railways
a) Charging the coach battery on train run
b) Working of lights and fans in the coach during train run
c) Sharing the load to other coaches in case of emergency
d) All the above [d]
92. The capacity of alternators are used for BG coach 110v Train Lighting system.
a) 3kw b)4.5kw c)12kw d)None [b]
93. The capacity of alternators are used for BG 110v roof mounted AC coach
a) 3kw b) 18kw c)25kw d)None [c]
94. Number of Alternators are provided for AC sleeper, AC chair car, AC composite coach
a) 1 b)2 c)3 d)None [b]
95. The AC winding/ Main winding of TL/AC coach alternator has _____ phase winding
a) Single b) Double c) Three d) None [c]
96. The safety items of TL/AC alternator are
a) Suspension hanger pin with bushes and Cottar Pin
b) Alternator Suspension arrangement
c) Alt pulley & nut
d) All the above [a]
97. NU 311 bearing is
a) Roller bearing
b) Ball bearing
c) Both a and b
d) None [a]

98. The field resistance of 4.5kw 110v TL alternators has [a]
 a) 4.5+/-0.5 ohms
 b) 6.0+/-0.5 ohms
 c) 10+/-0.5 ohms
 d) None
99. MA type RR units are working on the principle [a]
 a) Saturation and de saturation of magnetic core
 b) Mutual induction
 c) BJT
 d) None
100. Generally the voltage setting of the alternator is to be set at _____ [b]
 At 1500rpm
 a) Full rated current
 b) Half rated current
 c) 2/3rd rated current
 d) None
101. Both directions of train run, the polarity of Dc output supply of TL/AC alternator [b]
 a) Changes b) Do not change c) Change at start d) None
102. The mating of pulley with shaft of TL/AC alternator shall be [a]
 a) 80% b) 70% c) 60% d) 50%
103. The cleat of alternator is to be made of [a]
 a) Fibre glass in forced fire retardant DNC
 b) Bakelite
 c) Phenolic
 d) None
104. Rotor shaft of KEL 110v 4.5kw alternator made up of [a]
 a) EN 24 b) EN 8 c) Both a and b d) None
105. Type of suspension bushes to be used while mounting alternators [b]
 as per latest RDSO instructions are
 a) Cast Nylon b) Nylon 66 c) MS d) None
106. The insulation resistance of alternator when measured with megger [a]
 the IR value should not be less than
 a) 20 mega ohms b) 5 mega ohms c) both a and b d) None
107. In case of over voltage in 4.5kw 120v RR unit, the tripping voltage [a]
 of relay may be set at
 a) 145+/-2 b) 150+/-2 c) 135+/-2 d) None
108. The number of safety chains provided for 18kw and 25kw alternator [b]
 a) 2 b) 3 c) 4 d) None
109. The cut in speed of 25kw alternator is not more than [b]
 a) 400rpm b) 600rpm c) 800rpm d) None

- a]
110. The MFO of 25 kw alternator is not more than [c]
a) 400rpm b) 600rpm c) 800rpm d)None
111. The field resistance of 25 kw KEL alternator about [a]
a) 9.7568 ohms b) 8 +/-0.5 ohms c) 10.72 ohms d)None
112. To prevent breakage of shaft during service the following test should be [a]
Done as per RDSO SM1
a) Non destruction dye-penetrant test
b) Shock pulse meter test
c) Ultrasonic test
d) None
113. The gap between two halves of axle pulley to be maintained is [a]
a) 3.0mm +/- 0.5mm b) 6mm +/- 0.5mm c) 4mm +/- 0.5mm d) None
114. Before lifting coach body, the following electrical items as to be removed, [d]
otherwise coach body will not separate from trolley
a) Belt tensioning mechanism
b) V Belts
c) Alternator cables
d) All the above
115. Rating of AC fuses to be provided in 25kw MA type RR unit [b]
a) 125A HRC b) 160A HRC c) Either a or b d) None
116. The rating of filed fuse to be provided in 4.5kw 110v HMTD MA type RRU [a]
a) 6A b) 2A c) 4A d) None
117. Field resistance of 25 kw alternator [a]
a) 9.75 ohms b) 4.5 ohms c) 10 ohms d) none
118. Codal life of 120 AH VRLA battery [b]
a) 5 yrs b) 4 yrs c) 3 yrs d) None
119. Codal life of 120 AH Flooded battery [b]
a) 5 yrs b) 4 yrs c) 3 yrs d) None
120. 127. Codal life of Battery charger [a]
a) 12 yrs b) 15 yrs c) 25 yrs d) None
121. Codal life of coach wiring [b]
a) 12 yrs b) 15 yrs c) 20 yrs d) None

6. ERRU

01. Voltage regulation of alternator with ERRU for all capacities of alternator. [c]
 a) $\pm 5\%$ b) $\pm 3\%$ c) $\pm 2\%$ d) None
02. Voltage ripples of output supply with ERRU should be less than [a]
 a) 2% b) 5% c) 15% d) none
03. ISO pack power diode modular are used for converting [a]
 a) AC to DC b) DC to AC c) both A&B d) none
04. The advantage of ISO pack power modules are [d]
 a) Directly can mount on heat sink
 b) two diode combined unit
 c) Small in size
 d) all of the above
05. The ERRU shall have the following protection [d]
 a) Over voltage/surge protection b) DC output short circuit protection
 c) Over charging current limit protection d) all of the above
06. UVC used in ERRU must be [c]
 a) Suitable to work with all capacities b) suitable to work all makes
 c) Both A&B d) none
07. The over voltage setting of OVP with ERRU should be set at [a]
 a) 140-145V b) 125-130V c) 135-140V d) none
08. The battery charging current limit with 4.5 KW ERRU is to be set at [a]
 a) 24A $\pm 2A$ b) 12A $\pm 2A$ c) 36A $\pm 2A$ d) none
09. The battery charging current limit with 25kw ERRU when both alternators [a]
 are paralleled is to be set at
 a) 110A $\pm 5A$ b) 220A $\pm 5A$ c) 220A $\pm 10A$ d) none
10. OVP provided with ERRU shall latch before output voltage reaches to [c]
 a) 145V b) 150V c) 135V $\pm 2V$ d) none
11. Hall senses are used to sense [c]
 a) Total alternator load current b) battery charging current c) both A&B d) none
12. OVP is provided in ERRU for the purpose of [a]
 a) To arrest the over voltage
 b) latch the output voltage 90V for working lights and fans
 c) Both A&B
 d) none
13. PWM stands for
 a) Pulse width modulation
 b) phase width modulation
 c) both A&B
 d) none

14. EEPROM stands for

- a) Electrically erasable programmable read only memory
- b) Electronically erasable programmable read only memory
- c) Both A&B
- d) none

[a]

15. SMPS stands for

- a) switch mode power supply
- b) single mode power supply
- c) sweep mode power supply
- d) none

[a]

16. IGBT stands for

- a) Insulated gate bipolar transistor
- b) isolated gate bipolar transistor
- c) Both A&B
- d) none

[c]

7. RAILWAY CARRIAGE FANS

- [a]
01. Air delivery of fan can be measured by
a) Anemometer b) ammeter c) lux meter d) none
02. When insulation resistance test is carried out on railway carriage fan it's insulation resistance should not be less than
a) 20mega ohms b) 10mega ohms c) 2mega ohms d) none
[a]
03. The wattage of 110V DC 400mm sweep RC fan is
a) 32w b) 25w c) 19W d) none
[a]
04. The wattage of 110V DC 300mm RC fan is
a) 32w b) 25w c) 19W d) none
[b]
05. Voltage drop between battery and any of the farthest fan shall not exceed ____volts at battery voltage of 108v
a) 5 b) 3 c) 1 d) none
[b]
06. Codal life of RC fan is
a) 10 years b) 12 years c) 4 years d) none
[a]
07. Input power of 110V BLDC 400mm sweep fan of CGL make
a) 24w b) 38w c) 32w d) none

8. TRAIN LIGHTING COACH WIRING

01. Capacity of rotary switches provided in rotary junction box is [a]
 a) 40A b) 16A c) 10A d) 15A
02. Capacity of limit switch provided for alarm chain pulling indication light circuit [a]
 a) 10A b) 15A c) 35A d) 40A
03. Size of rewirable fuse recommended for individual fan in 110V TL system is [a]
 a) 35 SWG R/W b) 29 SWG R/W c) 20 SWG R/W d) 22 SWG R/W
04. Positive and negative cable in roof runs through on either side of coach to avoid [c]
 a) earth leakage b) over load c) short circuits d) none
05. Essential lights in SG TL coaches other than First class consists of [a]
 a) Lavatory lights, door way lights and Night lights and 50% of compartment lights
 b) Lavatory lights
 c) Lavatory and door lights
 d) Lavatory, door lights and Night lights
06. The wattage of TL Fan [a]
 a) 32W b) 10W c) 80W d) 60W
07. The capacity of battery fuse for 110V TL coach is [a]
 a) 40A HRC b) 16A HRC
 c) 10 A HRC d) 4 A HRC
08. FRP tray shall be provided at the bottom of the battery box to avoid [a]
 a) Corrosion of the battery box from splitting of acid
 b) Electrical insulation for battery and battery box
 c) Vibration of batteries
 d) all of the above
09. The minimum clearance between the top of the battery and battery box for maintenance of cells shall have [b]
 a) 50mm b) 150mm c) 100mm d) none
10. The size of the Fan provided on SGBG coaches of 110V system [a]
 a) 400mm sweep b) 300 mm sweep c) 225 mm sweep d) 200 mm sweep
11. The total number of V belts provided to the drive TL alternator 4.5KW are [a]
 a) 4 b) 6 c) 2 d) 3

12. The train lighting wiring is [b]
 a) two wire earthed system b) two wire unearthed system
 c) one wire earthed system d) none of the above
13. The insulation resistance of 110V coach when measured with 500V Megger during healthy weather condition [a]
 a) 2 mega ohms b) 1 mega ohms c) 3 mega ohms d) 0.5 mega ohms
14. The insulation resistance of 110V coach when measured with 500V Megger during adverse weather condition [b]
 a) 2 mega ohms b) 1 mega ohms c) 3 mega ohms d) none
15. Electrical fires on coach is mainly due to [d]
 a) loose connections b) short circuits and earth faults
 c) undersize cables d) all of the above
16. The earth leakage can be checked both positive and negative cables at a time by [a]
 a) double test lamp method b) 500V megger
 c) single test lamp d) none of the above
17. Double test lamps are connected in [a]
 a) series b) parallel c) both a&b d) none
18. When double test lamp is connected to EFTB, red lead connected lamp glows and blue lead lamp does not glow then coach is [c]
 a) healthy b) having positive earth c) having negative earth d) none
19. When double test lamp is connected to EFTB, red lead lamp does not glow and blue lead lamp glows then coach is [b]
 a) healthy b) having positive earth c) having negative earth d) both B&C
20. The insulation resistance of coach is to be measured with [a]
 a) megger b) ohm meter c) continuity meter d) none
21. The instrument used to measure the current without disturbing the circuit is [a]
 a) tong tester b) tachometer c) photo meter d) none
22. Voltmeter is to be connected to the circuit in [a]
 a) parallel b) series c) series and parallel d) none
23. Ammeter is to be connected to the circuit in [b]
 a) parallel b) series c) series and parallel d) none

24. While measuring the earth leakages by double test lamp, lamps should have [a]
 a) same wattage b) different wattage c) any wattage d) none
25. While giving supply to adjacent coaches through EFT the supply polarities are to be maintained [a]
 a) same polarity b) opposite polarity c) any polarity d) none
26. No generation of TL alternator is due to [d]
 a) alternator Field/AC wire defective b) no residual magnetism
 c) Rectifier /regulator box defective d) any of the above
27. Cables used for wiring in coaches should have [a]
 a) minimum joints b) five joints c) maximum joints d) none
28. The level of illumination will be measured by [c]
 a) photo meter b) lux meter c) both A&B d) none
29. The percentage of spare coaches should be available in TL maintenance depot on traffic account is [b]
 a) 10 b) 5 c) 6 d) none
30. The percentage of spare coaches should be available in AC maintenance depot on traffic account is [c]
 a) 12 b) 5 c) 6 d) none

9. ABBREVIATIONS OR EXPANDED FORM

1. What is the abbreviation of BARC
 a. Bhabha Atomic Research center
 C. Bhagya nagar Atomic Research Center
 b. Bombay Atomic Research Center
 d. None
(a)
2. What is the abbreviation form of COFMOW
 a. Central for Modernization office works
 C. Central for Modernization of other works
 b. Central for Modernization of workshop
 d. None
(b)
3. What is the abbreviation form of CONCOR
 a. Container corporation
 C. Cement corporation
 b. Central Corporation
 d. None
(a)
4. What is the abbreviation form of CORE
 a. Central organization for rural Engineering
 b. Central Organization for roads Engineering
 C. Central Organization for railway Electrification
 d. None
(c)
5. What is the abbreviation form of CRIS
 a. Central for Rural information system
 C. Central for railway investment system
 b. Central For railway information system
 d. None of the above
(b)
6. What is the abbreviation form of CAMTECH
 a. Central Advanced Management Technology
 b. Central Advance Management of Tracks
 c. Central Advanced Monitoring Technology
 d. Centre For Advance Maintenance Technology
(d)
7. What is the abbreviation form of IRCON
 a. Indian Railway Construction company Limited
 b. Indian Roads Construction company Limited
 C. International Railway Construction company Limited
 d. None
(a)
8. What is the abbreviation form of IRFC
 a. International Rural Finance Corporation
 b. Indian Railway Finance Corporation
 C. Indian Roads Finance Corporation
 d. None
(b)
9. What is the abbreviation form of IRIEEN
 a. Indian Railway Institute of Electrical Engineering
 b. Indian Railway Institute of Electronics Engineering
 c. Indian Railway Institute of Economics and Engineering
 d. None
(a)
10. What is the abbreviation form of IRWO
 a. Indian Rural Welfare Organization
 c. Indian Rural work Organization
 b. International Rural Welfare Organization
 d. Indian Railway welfare organization
(d)

11. What is the abbreviation form of PNM
 a. Passenger Nominating Machinery
 c. Permanent Negotiating Machinery
 b. Permanent National Machinery
 d. Permanent Navigating Machinery (c)
12. What is the abbreviation form of RCT
 a. Railway Claims Tribunal
 c. Railway change Tribunal
 b. Railway Charges Tribunal
 d. Railway Cleaning Tribunal (a)
13. What is the abbreviation form of RDSO
 a. Railway Design and Standards Origination
 c. Railway Design and Standards Organization
 b. Research Design and Standards Organization
 d. None of the Above (b)
14. What is the abbreviation form of RITES
 a. Railway Institute of Technical Engineering services ltd.
 b. Railway Institute of Technical Electrical services ltd.
 c. Railway Indian Technical Electrical services ltd.
 d. Rail India Technical and Economics services Ltd (d)
15. What is the abbreviation form of SCADA
 a. Supervisory Control and Data Acquisition.
 b. Supervisory Central and Distribution Acquisition
 c. Supervisory Central Advanced Data Acquisition.
 d. none of the Above (a)
16. What is the abbreviation form of FRPCPY
 a. Fault rate Percentage per year
 c. Failure rate Percentage per year.
 b. Failure rate Practice per year
 d. Fault rate Practice per year (c)
17. What is the abbreviation form of PATB
 a. Passenger and Terminal bracket
 c. Passenger aluminum terminal Board
 b. Passenger alarm Terminal Board
 d. Permanent alarm terminal Board (b)
18. What is abbreviation form of EIG
 a. Electrical Institute of Government
 c. Electrical Inspection to the Government
 b. Electrical Inspection to the Government
 d. None of the above. (c)
19. Who is EIG
 a. PCEN
 c. PCME
 b. PCEE
 d. PCPO (b)
20. What is abbreviation form of DGS&D
 a. Director General of supply and disposal
 c. Director General of Stores and Disposal
 b. Director General of stores and Distribution
 d. None of the above. (a)
21. What is abbreviation form of EMD
 a. Earnest Money Demand
 c. Earnest Money Deposit
 b. Earnest Monitoring and Dispatch
 d. None of the above (c)
22. What is abbreviation form of SD
 a. Supply and Dispatch
 c. Security Data
 b. Supply and Demand
 d. Security Deposit (d)

23. What is abrivation of PG
a. Performance Guarantee
c. Play and Ground

b. Programmer Guarantee
d. Program of Goods

(a)

24. What is abbreviation of CRI
a. Colour remaining Index
c. Colour rendering Index

b. Couch rendering Index
d. Colour resonance Index

(c)

25. What is abbreviation of SAF
a. Supply Application Form
c. Supply Advanced Form

b. Stores Application Form
d. Stocking Application Form

(d)

10. AIR CONDITIONING

1. The purpose of evaporator is (c)
 - a. To absorb heat from coach and to send cooled air in to the coach.
 - b. To convert liquid refrigerant into vapor
 - c. Both (a) and (b)
2. The purpose of evaporator is (a)
 - a. To absorb heat from the coach and to send cooled air in to the coach
 - b. To draw refrigerant vapor from the cooling coil and boost the temperature and pressure of refrigerant.
 - c. To reject the heat of refrigerant to the water or air and to convert refrigerant vapor into liquid
 - d. To control and pump the refrigerant to the cooling coil.
3. The purpose of compressor is (b)
 - a. To absorb heat from the coach and to send cooled air in to the coach
 - b. To draw refrigerant vapor from the cooling coil and to boost the temperature and pressure of refrigerant
 - c. To reject the heat of refrigerant to the water and air and to convert refrigerant vapor into liquid
 - d. To control and pump the refrigerant to the cooling coil.
4. The purpose of condenser is to (c)
 - a. To absorb heat from the coach and send cooled air in to the coach
 - b. To draw refrigerant vapor from the cooling coil and to boost the temperature and pressure of refrigerant
 - c. To reject the heat of refrigerant to the water or air and to convert refrigerant vapor in to liquid
 - d. To control and pump the refrigerant to the cooling coil
5. The purpose of expansion valve is (d)
 - a. To absorb heat from the coach and send cooled air in to the coach
 - b. To draw refrigerant vapor from the cooling coil and to boost the temperature and pressure of refrigerant
 - c. To reject the heat of refrigerant to the water or air and to convert refrigerant vapor in to liquid
 - d. To control and pump the refrigerant to the cooling coil
6. The purpose of liquid receiver is (d)
 - a. It carries the low pressure vapor from the evaporator to the suction inlet of the compressor
 - b. It conveys the high pressure and high temperature refrigerant from the compressor to the condenser
 - c. It carries the liquid refrigerant from the liquid receiver and conveys it to the expansion valve
 - d. It acts as a reservoir which stores the liquid refrigerant coming from the condenser and supplies it to the cooling coil according to its requirement
7. The relative humidity for the human comfort zone is
(a) a. 40 - 60% b. 80 - 100% c. 20 - 40% d. None

8. The cooling temperature during summer mostly preferred by passengers in Railway AC coaches is single setting is (a)
 a. 23 to 25 C b. 19 to 21 C c. 26 to 28 C d. None
9. The heating temperature during winter proffered by passengers in Railway AC coaches is single setting is (b)
 a. 23 to 25 C b. 19 to 21 C c. 26 to 28 C d. None (a)
10. The air conditioning system used in Railway coaches is (a)
 a. Vapor compressor system b. Circulation of cold water system
 c. Ice activated system d. All of the above
11. The purpose of compressor in vapor compressor system is (c)
 a. It extracts refrigerant gas from the evaporator coil at low pressure
 b. it compresses low temperature and low pressure gas and delivers to the condenser at high pressure and high temperature
 c. Both (a) and (b)
12. The purpose of dehydrator and filter used in vapor compression system is (c)
 a. It removes moisture available in refrigerant system
 b. It prevents particles and scales in refrigerant system
 c. Both (a) and (b)
 d. d. None
13. The purpose of high pressure cut out used in vapor compressor system is (c)
 a. It stops the compressor if the pressure exceeds the preset value
 b. It protects the compressor and piping from damage
 c. Both (a) and (b)
 d. None
14. The purpose of condenser used in vapor compressor system is (c)
 a. It cools the high pressure hot gas received from the compressor.
 b. It converts high pressure gas into liquid
 c. Both (a) and (b)
 d. None
15. The purpose of expansion valve/capillary tube used in vapor compression system is (c)
 a. It controls the rate flow of high pressure refrigerant liquid
 b. It allows refrigerant liquid to evaporator at low pressure
 c. Both (a) and (b)
 d. None
16. The purpose of the evaporator (cooling coil) used in vapor compression system is (c)
 a. It evaporates refrigerant liquid by absorbing heat from surrounding areas
 b. It cools surrounding area
 c. Both (a) and (b)
 d. None
17. Formula for converting centigrade into foreign heat (b)
 a. $5/9 (F-32)$ b. $9/5 (C+32)$
 c. $9/5 (F-32)$ d. $5/9 (C+32)$
18. Formula for converting foreign heat into centigrade (a)
 a. $5/9 (F-32)$ b. $9/5 (C+32)$
 c. $9/5 (F-32)$ d. $5/9 (C+32)$
19. The normal body temperature of human being is (c)
 a. 37 C b. 98.6 F c. Both (a) and (b) d. None

20. The danger for the human body, if the temperature falls below
a. 98 F b. 98.6 F c. 105.6 F d. None (a)
21. The danger for the human body, if the temperature falls below
a. 36.5 C b. 37 C c. 40.5 C d. None (a)
22. The danger for the human body, if the temperature increase above
a. 40.5 C b. 37 C c. 36.5 C d. None (a)
23. The danger for the human body, if the temperature increase above
a. 98 F b. 98.6 F c. 105.6 F d. None (c)
24. If the relative humidity is below 30% the result will be
a. Mucous membranes b. Skin surface becomes too dry
c. Both (a) and (b) d. None (c)
25. If the relative humidity is above 70% the result will be
a. Clammy sensation b. Sticky sensation
c. Both (a) and (b) d. None (c)
26. For summer air conditioning the relative humidity should not be more than
a. 40% b. 60% c. 75% d. 90% (b)
27. For winter air conditioning the relative humidity should not be less than
a. 40% b. 60% c. 75% d. 90% (a)
28. The duct is made of
a. Galvanized Iron b. Aluminum
c. Fiber glass d. Cement asbestos (c)
29. Capillary tube is used in
a. Hermetically sealed units b. Open type AC units
c. Semi open type AC units d. None (a)
30. An evaporator is also known as
a. Freezing coil b. Cooling coil
c. Chilling coil d. All of the above (d)
31. Evaporator is also known as
a. Freezing coil b. Cooling coil
c. Chilling coil d. All of the above (d)
32. Condenser is used in the pressure side of the refrigerant system
a. Low b. High c. Medium d. None (b)
33. The highest temperature in a vapor compressed system occur after
a. Compressor b. Condensation
c. Expansion d. Evaporation (a)
34. The lower at temperature in vapor compressed system occur after
a. compressor b. Condenser
c. Expansion valve d. Evaporator (b)
35. Dry bulb temperature is (a)
a. The temperature indicated by a thermometer with a clean, dry sensing element that is shielded from radiation effects.
b. The temperature measured by a thermometer with its bulb covered by a wick wetted with distilled water exposed to a current of rapidly moving air.
c. An arbitrary index of the degree of warmth or cold felt by the human body in response to a combination of the temperature, humidity and movement of air
d. None

36. Wet bulb temperature is (b)
 a. The temperature indicated by a thermometer with a clean, dry sensing element that is shielded from radiation effects
 b. The temperature measured by a thermometer with its bulb covered by a wick wetted with distilled water exposed to a current of rapidly moving air,
 c. An arbitrary index of the degree of warmth or cold felt by the human body in response to a combination of the temperature, humidity and movement of air
 d. None
37. The air conditioning system depends on its action on the (c)
 a. Latent heat principle
 b. Expansion principle
 c. Both (a) and (b)
 d. none
38. Latent heat principle is (c)
 a. Any substance is passing from the liquid to gaseous state absorbs a specific quantity of heat at constant temperature.
 b. Any substance is passing from the gaseous to liquid state gives up a specific quantity of heat at constant temperature.
 c. Both (a) & (b)
 d. None.
39. Latent heat principle is applied for (c)
 a. Evaporator
 b. Condenser
 c. Both (a) & (b)
 d. None
40. Psychrometric chart is (d)
 a. The fundamental tool of air conditioning engineer.
 b. The science involving thermo dynamic properties of moist air
 c. The changes occurring in humid air when it is subjected to various air conditioning process can be traced.
 d. All the above.
41. Psychrometric chart shows relationship between (f)
 a. Dry bulb temperature
 b. Wet bulb temperature
 c. Dew point temperature
 d. Humidity
 e. Total heat (enthalpy)
 f. All the above.
42. Refrigerant used in air condition should be (d)
 a. Non-irritating
 b. non-poisonous
 c. Non-inflammable
 d. All the above.
43. Refrigerant used in air condition system should not have (c)
 a. Corrosive action
 b. Disagreeable odor
 c. Both (a) & (b)
 d. None
44. Refrigerant used in air condition system (d)
 a. Leak detection should be easy and simple.
 b. Latent heat of vaporization should be large.
 c. The volume of vapor for given weight should be slightly above atmosphere
 d. All the above.
45. The refrigerant used in AC system (d)
 a. Must be capable of being liquefied at condensing temperature.
 b. Must not solidify at any temperature within the range of working.
 c. The vapor pressure should be slightly above atmosphere.
 d. All the above.

46. The purpose of air condition is (c)
 a. Temperature control b. Humidity control
 c. Air movement and circulation d. Air filtering, cleaning and purification
 e. All the above.
47. The range of temperature for year round human comfort is (a)
 a. 22.8° to 25°C b. 27° to 29°C
 c. 15° to 17°C d. None.
48. The range of air motion for year round human comfort is (a)
 a. 5m/min to 8m/min b. 15m/min to 20m/min
 c. 25m/min to 8m/min d. None.
49. The unit for the capacity of air conditioning is in (a)
 a. Ton of refrigeration b. Kilograms
 c. Founds d. None
50. One ton of refrigeration is equal to (a)
 a. 288000 Btu/24 hr b. 144000 Btu/ 24 hr
 c. 72000 Btu/ 24 hr d. None.
51. One ton of refrigeration is equal to (a)
 a. 12000 Btu/ hr b. 6000 Btu/ hr
 c. 2000 Btu/ hr d. None.
52. One ton of refrigeration is equal to (a)
 a. 200 Btu/ min b. 100 Btu/ hr
 c. 50 Btu/ hr d. None.
53. One ton of refrigerant equals to (c)
 a. 72000 Kcal/ 24 hrs b. 288000 BTU/24 Hrs
 c. Both (a) & (b) d. None.
54. One ton of refrigerant equals to (c)
 a. 3000 Kcal/ hrs b. 12000 BTU/ Hrs
 c. Both (a) & (b) d. None.
55. One ton of refrigeration is equal to (c)
 a. 50 Kcal/min b. 200 BTU for minute
 c. Both (a) & (b) d. None.
56. One ton of refrigerant is (d)
 a. A machine having its capacity to produce cooling effect of 200 BTU/min or 50 Kcal per min.
 b. A machine having its capacity to procure cooling effect of 12000 BTU/ hours or 3000 Kcal/per Hrs.
 c. Removes the heat at the rate of 3000 Kcal/hr or 50 kcal/min
 d. All of the above. (c)
57. Refrigerant is a
 a. Substance which is circulated in a refrigeration system to reject heat
 b. Substance which is circulated in a refrigeration system to absorb heat
 c. Both (a) & (b)
 d. None.

58. R22, refrigerants comes under group of
 a. HCFC
 b. HFC
 c. Both (a) & (b)
 d. None
59. 134a refrigerant comes under the group of
 a. HCFC
 b. HFC
 c. Both (a) & (b)
 d. None
60. HCFC Stands for
 a. Hydro chloro, flouro carbon
 b. Halo chloro flouro carbon
 c. Both (a) & (b)
 d. none
61. HCF Stands for
 a. Hydro flouro carbon
 b. halo flouro carbon
 c. Both (a) & (b)
 d. none
62. The moisture in AC systems causes
 a. Corrosion
 b. Sludge
 c. Amalgam
 d. Freeze-up
63. Corrosion caused due to moisture in air condition systems results
 a. Damage the metallic components
 b. Reduce the lubrication properties of the oil.
 c. Increase the lubrication properties of the oil.
 d. None
64. Sludge caused due to moisture in air condition system results
 a. Increase the lubrication properties of the oil.
 b. Reduce the lubrication properties of the oil.
 c. Blocks flow of refrigerant
 d. None.
65. Amalgam caused due to moisture/water at capillary in AC system results
 a. Damage the metallic components
 b. Blocks flow of refrigerant
 c. Reduce the lubrication properties of the oil
 d. none.
66. Freeze up caused due to moisture/water at capillary in AC system results.
 a. Damage the metallic components
 b. Reduce the lubrication properties of the oil
 c. Blocks flow of refrigerant
 d. All of the above.
67. The moisture in the AC system can be eliminate by
 a. Blowing dry air/nitrogen through the system
 b. Pulling vacuum through the system
 c. Heating the system to high temperature, while pulling vacuum, simultaneously
 d. All of the above.
68. The suction pressure of the system lower than the normal, the causes are
 a. An obstruction in the flow of system
 b. Failure of blower fan, filters
 c. Rate of flow of refrigerant in the system is low
 d. Electronic thermostats are not functioning
 e. All the above.
69. Suction pressure of the system is higher than the normal, the reasons may be
 a. Excess load on the evaporator
 b. Expansion valve defective
 c. Compressor speed low
 d. All the above

70. The cooling in the coach is not sufficient, the reasons may be (c)
- Compressor not getting loaded/poor efficiency
 - Too little gas or air may have accumulated in the system
 - Condenser, fresh/return filters, evaporator dirty/ choked
 - Setting of expansion valve disturbed
 - All the above.
71. Purging means (a)
- Expelling all the air in the system by admitting gas
 - admitting air into the system
 - Admitting refrigerant into the system
 - None.
72. Condenser head pressure is lower than the normal, the reason is (d)
- Less gas in the system
 - Gas leakage in the system
 - Expansion valve/ evaporator/ Compressor suction strainer choked
 - All of the above.
73. Condenser head pressure is higher than the normal, the reason is (d)
- Condenser fans are not working properly
 - Air in the system
 - Excessive gas in the system
 - All of the above.
74. Capillary tube is also called as (d)
- Condenser
 - Evaporator
 - Compressor
 - Expansion valve
75. The function of capillary tube is same as. (d)
- Condenser
 - Evaporator
 - Compressor
 - Expansion valve

8. RMPU COACHES

1. RMPU means
 a. Roof mounted package unit
 c. Rack mounted packaged unit
 b. Rail mounted package unit
 d. None
(a)
2. Weight of the FEEDERS LLOYD RMPU is about
 a. 2700 kg
 b. 620kg
 c. 700kg
 d. none
(b)
3. Weight of the SIDWAL RMPU is about
 a. 2700 kg
 b. 620kg
 c. 700kg
 d. none
(c)
4. Installation time of RMPU is about
 a. 4 hours
 b. 24 hours
 c. 48 hours
 d. None
(a)
5. Refrigerant is used in RMPU is
 a. R22
 b. R12
 c. R134n
 d. None
(a)
6. Chemical name of R22 is
 a. Mono chloro Difluoro methane CHClF2
 c. Dichloro monofluor methane CHCl2F
 b. Dichloro difluoro methane CCl2F2
 d. None.
(a)
7. Quantity of refrigerant to be Charged for one AC circuit of RMPU is about
 a. About 3 Kgs
 c. About 30KGS
 b. About 20Kgs
 d. None
(a)
8. The type of compressor used in RMPU unit is
 a. Heretically sealed
 c. Semi opened
 b. opened
 d. None
(a)
9. Potential leakage of RMPU unit is
 a. Low
 b. Large
 c. Enormous
 d. none
(a)
10. Type of power supply to compressors and condenser and evaporator units of RMPU coach is .
 a. DC
 b. AC
 c. Pulsating DC
 d. None
(b)
11. Power supply is fed to compressors and condenser and evaporator units of RMPU coach is
 a. 1 Phase 230V
 b. 3 phase 415 V
 c. 3 Phase 110V
 d. None
(b)
12. Maintenance of RMOU units is about
 a. Little
 b. More
 c. Heavy
 d. None
(a)
13. Dust collection on RMPU units is about
 a. Little
 b. More
 c. Heavy
 d. None
(a)
14. Damage due to cattle run for RMPU units is
 a. NIL
 b. More
 c. Little
 d. None
(a)
15. Performance of RMPU unit is
 a. Poor
 b. Satisfactory
 c. Excellent
 d. None
(c)

16. Technology of RMPU unit is (c)
a. Old b. Obsolete c. Latest d. None
17. Water dropping on passengers due to RMPU units is (c)
a. Regularly b. Sometimes c. Nil d. None
18. Required fresh air for AC RMPU coach is taken from (a)
a. Roof of the coach b. Sides of the coach near toilets
c. Under frame of the coach d. None
19. Capacity control of RMPU is (b)
a. 50% to 100% b. 25% to 100% c. 75% to 100% d. None
20. Capacity in tons of refrigeration of RMPUs of AC sleeper coach (a)
a. 14 tons b. 10.4 tons c. 5.2 tons d. None
21. Capacity in tons of refrigeration of RMPUs of first class AC coach is (Single unit) (c)
a. 14 tons b. 10.4 tons c. 7 tons d. None
22. Wave form of AC of supply fed to RMPU unit (c)
a. Square b. Sine c. PWM d. None
23. Capacity in tons of refrigeration of one RMPU unit (c)
a. 14 tons b. 5.2 tons c. 7 tons d. None
24. Number of Compressor are available in RMPU has (b)
a. 4 b. 2 c. 1 d. none
25. Number of Compressor are available in RMPU coach other than first class has (a)
a. 4 b. 2 c. 1 d. none
26. Number of RMPUs are available in all AC coach other than first class are (a)
a. 2 b. 1 c. 3 d. none
27. The power required for one RMPU is about (a)
a. 13 KW b. 5.75 KW c. 23 KW d. None
28. The current taken by the one RMPU unit is (b)
a. 40 A b. 22 A c. 10A d. None
29. The advantage of RMPU AC coach system is (g)
a. Less weight
b. Hermetically sealed compressor, no refrigerant leakage
c. Less space occupation
d. Less maintenance and reliable
e. Consuming less power
f. More Energy efficient
g. All of the above
30. Number of Condensers one RMPU has (b)
a. One b. Two c. Three d. None

31. Number of Blower Motor one RMPU has (a)
a. One b. Two c. Three d. None
32. Number of heater one RMPU has (b)
a. One b. Two c. Three d. None
33. RMPU is Fitted (a)
a. Above toilets in a roof b. Underneath the coach
c. Inside the coach d. None
34. The capacity of Compressor motor used in RMPU AC Coach is (a)
a. 5.25 kw b. 6.3 kw c. 4.3kw d. None
35. The capacity of Condenser motor used in RMPU AC Coach is (a)
a. 1 HP b. 1.5 HP c. 2.5 HP d. None
36. The capacity of crank case heater of compressors used in RMPU AC Coach (a)
a. 50 W b. 150 W c. 200 W d. None
37. The capacity of evaporator fan motor used in RMPU AC Coach (a)
a. 1.5 HP b. 0.5 HP c. 2.5 HP d. None
38. Control panel load of RMPU AC Coaches is About (b)
a. 400 W b. 200 W c. 100 W d. None
39. The capacity WRA motor RMPU AC Coaches is (a)
a. 373 W/ 0.37 KW b. 500 W c. 200 W d. No
40. Heaters load of one RMPU is about (a)
a. 6 KW b. 3 KW c. 12KW d. None
41. Current taken by one compressor motor of RMPU of AC coach is (a)
a. 8.25+/-25 b. 2.6+/-10% c. 2.2+/-10% d. None
42. Current taken by one condenser fan motor of RMPU of AC coach is (c)
a. 8.25+/-25 b. 2.6+/-10% c. 2.2+/-10% d. None
43. Current taken by one evaporator fan motor of RMPU coach (b)
a. 8.25+/-25 b. 2.6+/-10% c. 2.2+/-10% d. None
44. Starting current taken by one compressor motor of RMPU coach in (b)
a. 10A b. 49 A c. 15 A d. None
45. The RMPU coaches are manufactured by (f)
a). M/s.Fedders Lloyd b) M/s.Sidwal c.) M/s.Intech d) M/s.Amit Engg f) All of the above
46. The control panel of RMPU coaches works on (b)
a. 230 V AC b. 110 V AC c. 440 V AC d. None
47. Speed of the condenser motor of RMPU coach is (a)
a. 910 RPM b. 720 RPM c. 2880RPM d. None

48. Speed of the evaporator fan motor of RMPU coach is (a)
a. 415 RPM b. 720 RPM c. 2880RPM d. None
49. The size of the FEDDER LLOID RMPU is about (a)
a. 2150 x2250x620 mm b. 1600 x1800x620 mm
c. 1400 x1500x620 mm d. None
50. The size of the SIDWAL RMPU is about (a)
a. 2150 x2250x620 mm b. 1600 x1800x620 mm
c. 1400 x1500x620 mm d. None
51. 415 V 3 Phase AC supply required for operating motors of RMPU is fed from (b)
a. 25 KW Alternator b. 25 KVA inverter c. Both (a) and (b) d. None
52. The capacity of inverters used in RMPU coach is (b)
a. 18 KVA b. 25 KVA c. 12 KVA d. None
53. No of inverters required for one RMPU coach are (a)
a. Two b. One c. Three d. Four
54. The input Voltage of 25 KVA inverter of RMPU coach (a)
a. 110/135 DC b. 24 V DC c. 415 V AC d. None
55. The output Voltage of under slung/on board inverter of RMPU coach (a)
a. 415 VAC b. 230 VAC c. 110 VAC d. None
56. 110 V AC voltage required for operating control panel of RMPU AC Coach is stepped down from (b)
a. 750 V AC b. 415 V AC c. 220 V AC d. None
57. The wave form of 110V AC voltage fed to control panel of RMPU coach is (a)
a. Shine wave b. Square wave c. PWM wave d. None
58. PWM wave of 110V AC voltage of 25 KVA inverter is converted in to sine wave by _____ to (a)
feed to cooling fan of RMPU
a. Shine filter b. COS filter c. Tan filter d. None
59. No of evaporator fan motors are available for one RMPU AC coach (a)
a. Two b. One c. Three d. Four
60. Approximate 1st Class AC load in terms of ton of refrigeration (a)
a. 5.3 tons b. 7.4 tons c. 11.1 tons d. None
61. Approximate Air Conditioning load of II tire AC Coach (c)
a. 5.3 tons b. 7.4 tons c. 11.1 tons d. None
62. Approximate Air Conditioning load of III tire AC Coach (c)
a. 5.3 TR b. 7.4 TR c. 11.1 TR d. None
63. Approximate Air Conditioning load of AC chair car (c)
a. 5.3 TR b. 7.4 TR c. 11.1 TR d. None

64. Cooled air is sent to the compartment through
a. Fresh air filters b. Duct & grills c. Return air filters d. None (b)
65. Required fresh air for AC RMPU coach is collected from roof is sent to evaporator through
a. Fresh air filters b. Return air filters c. Both (a) and (b) d. None (a)
66. Air cooled from compartment of AC coach is sent to evaporator through
a. Return air filters b. Fresh air filters c. Both (a) and (b) d. None (a)
67. Air blown over condenser is sent to
a. Evaporator b. Heater c. Outside atmosphere d. None (c)
68. Air flow of condenser motor used in Sidwal make RMPU
a. 10000 cubic feet for minute b. 17000 cubic Meter for hour
c. Both (a) and (b) d. None (c)
69. Air flow of condenser motor used in FEDER make RMPU
a. 8000 cubic feet for minute b. 13600 cubic meter for hour
c. Both (a) and (b) d. None (c)
70. Type of condenser/evaporator coils used in Sidwal / Fedders make RMPU
a. Fin-On-Tube type b. Shell on tube
c. Tube in tube d. All the above (a)
71. The condenser coils are made up of
a. Aluminum b. Copper
c. Zinc d. None (b)
72. The evaporator coils are made up of
a. Aluminum b. Copper
c. Zinc d. None (b)
73. The outer diameter of condenser coil of Sidwal make
a. 9.52 mm b. 6 mm c. 28 mm d. None (a)
74. The outer diameter of evaporator / condenser coil of Sidwal / Fedders make
a. 9.52 mm b. 6 mm c. 28 mm d. None (a)
75. Air flow of evaporator fan used in Sidwal make RMPU
a. 2400 cubic feet per minute b. $4000 \pm 5\%$ cubic meters of hour
c. Both (a) and (b) d. None (c)
76. Air flow of evaporator fan used in Fedders make RMPU
a. $2000 \pm 10\%$ cubic meters of hour b. $4200 \pm 10\%$ cubic meters of hour
c. Both (a) and (b) d. None (b)
77. The under frame equipment of the RMPU coach other than first class has
a. One set of battery 110V, 1100 AH. b. Two sets of alternators 25KW capacity
c. 200 A battery charger d. Two WRAs
e. All the above (c)

78. Drip tray provided under cooling coils to collect the rain water should be made of (b)
a. Iron b. Steel c. Copper d. Zinc
79. Drip tray provided under cooling coils in RMPU coaches should have a depth of (a)
a. 90 mm b. 50 mm c. 25 mm d. None
80. Recommended relative humidity inside the coach is (a)
a. 60 % maximum b. 70 % maximum c. 80 % maximum d. None
81. Power cables and control cables of RMPU should run through (b)
a. Same conduit b. Separate conduit
c. Same conduit with better insulation d. None
82. Motors used in RMPU coaches are (a)
a. Induction motors b. Synchronous motors
c. Slip ring induction motors d. None
83. The induction motors used in RMPU are (a)
a. Three phase motors b. Single phase motors
c. Two phase motors d. None
84. The starters used for 3 phase induction motors of RMPU coaches are (a)
a. Direct on line starters b. Star delta starters
c. Slip ring induction starters d. None
85. RMPU of AC coach should be made from (c)
a. Iron with GI coating b. Iron with nickel coating
c. Stainless steel d. None
86. Fresh air requirement inside the 1st class compartment for person is (a)
a. 0.7 m³ /min b. 0.35 m³ /min c. 0.5 m³ /min d. None
87. Fresh air required inside the AC coach for II Tire Sleeper and III Tire Sleeper per person is about (b)
a. 0.7 m³ /min b. 0.35 m³ /min c. 0.5 m³ /min d. None
88. Minimum fresh air requirement for one RMPU of AC coach (a)
a. >17.5 m³ /min b. 5.5 m³ /min c. 10 m³ /min d. None
89. The compressor of RMPU coach shall be provided with (c)
a. High pressure cut out b. Low pressure cut out
c. Both (a) and (b) d. None
90. HP cut out of RMPU coach shall be set at (b)
a. 135 + 15% PSI b. 415 + 15% PSI
c. 35 + 15% PSI d. None
91. LP cut out of RMPU coach shall be set at (c)
a. 135 + 5% PSI b. 415 + 15% PSI
c. 35 + 15% PSI d. None

92. HP cut out of RMPU coach is (a)
 a. Manual reset type b. Auto reset type
 c. Both (a) and (b) d. None
93. Accessibility of return air filters of RMPU of AC coach (b)
 a. From top of the unit
 b. From bottom of the unit inside the coach in corridor
 c. Middle access door at the bottom of the unit
 d. Access door on each side at bottom of the unit
94. Fresh air filters are used for filtering (b)
 a. Return air b. Only fresh air
 c. Return air and fresh air d. None
95. RMPU blower fan motors are manufactured by (d)
 a. ABB b. CG
 c. NGEF, KEC, Bharat Bigili d. All of the above
96. Fresh air filter maximum air flow rate shall be (a)
 a. 10 m³/min b. 15 m³/min c. 20 m³/min d. None
97. Fresh air filter maximum air velocity in feet/min (a)
 a. 300 b. 400 c. 500 d. None
98. The maximum resistance of the fresh air filter, when it is clean (a)
 a. 4mm (WG) b. 6mm (WG) c. 8 mm (WG) d. None
99. The maximum resistance of fresh air filter with dust concentration is (a)
 a. 12 mm (WG) b. 6 mm (WG) c. 8 mm (WG) d. None
100. Return air filter maximum air flow rate in m-cub/minute (a)
 a. 30 b. 40 c. 50 d. None
101. Return air filter maximum air velocity in feet/minute (a)
 a. 500 b. 700 c. 1000 d. None
102. Maximum resistance of the return air filter when it is clean (a)
 a. 3 mm (WG) b. 5 mm (WG) c. 7 mm (WG) d. None
103. Maximum resistance of the return with dust concentration (a)
 a. 10 mm (WG) b. 15 mm (WG) c. 18 mm (WG) d. None
104. The evaporator blower should be designed for air delivery at _____ mm head of water gauge (c)
 a. 5 b. 10 c. 20 d. None
105. The copper parts of the Air conditioning coil should be (a)
 a. Tinned b. GI coated c. Nickel coated d. None
106. The cooling temperature settings of electronic thermostat are recommended by RDSO is (a)
 a. 23°C to 25°C b. 22°C to 25°C c. 24°C to 26°C d. None

107. The heating temperature setting of electronic thermostat are recommended by RDSO is (b)
a. 17°C to 19°C b. 19°C to 21°C c. 21°C to 23°C d. None
108. During IR test of RMPU, IR of compressor / Motors shall not be less than (b)
a. 100 mega ohms b. 2 mega ohms c. 20 mega ohms d. None
109. IR value of RMPU to be tested with (a)
a. 1000 Volts megger b. 500 volts megger
c. 100 volt megger d. None
110. During high voltage test of RMPU, the duration of high voltage to be applied on RMPU is (a)
a. 60 sec b. 120 sec c. 30 sec d. None
111. During high voltage test of RMPU, the high voltage to be applied (b)
a. 1000 volts ac b. 2000 volts ac c. 5000 volts ac d. None
112. During high voltage test of RMPU, the high voltage to be applied (b)
a. 1000 volts ac b. 2000 volts ac c. 5000 volts ac d. None
113. Number of over heat protector thermostats are required for one RMPU are (b)
a. 1 b. 2 c. 3 d. None
114. Number of vane relays required for one RMPU are (a)
a. 2 b. 1 c. 3 d. None
115. Number of LP cut outs required for one RMPU are (a)
a. 2 b. 1 c. 4 d. None
116. Number of HP cut outs required for 1 RMPU are (a)
a. 2 b. 1 c. 4 d. None
117. Three phase 5 KW heaters required for one RMPU unit is (b)
a. 1 b. 2 c. 3 d. 4
118. The electronic thermostat will be located on (a)
a. One of the flap doors of control panel from inside b. Front top of the unit
c. From bottom of the unity inside the coach d. None
119. Sensor of electronic thermostat will be located (a)
a. at return air entries b. fresh air path
c. In the duct inside the compartment d. None
120. The size of cables recommended for 5-10 HP motor leads in RMPU coaches (a)
a. 6 sq. Mm (84/0.3) b. 4 sq. mm (56/0.3)
c. 1.5 sq. mm d. None
121. The size of the cable recommended for 0.75 HP to 2 HP motor leads in RMPU coaches (b)
a. 6 sq. Mm (84/0.3) b. 4 sq. mm (56/0.3)
c. 1.5 sq. mm d. None
122. The size of cable recommend for control panel wiring of RMPU coaches (c)
a. 6 sq. mm b. 4 sq. mm c. 1.5 sq. mm d. None
123. Rotor shafts of RMPU motors are made out (c)
a. EN.8 b. EN.9 c. Both a and c d. None

124. The Study state temperature rise of stator winding of compressor motor of H class RMPU should not exceed above ambient of 65°C with full load at rated voltage is
a. 70°C b. 80°C c. 100°C d. None (b)
125. Sensor of electronic thermostat will be located
a. at return air entries b. fresh air path
c. In the duct inside the compartment d. None (a)
126. The size of cables recommended for 5-10 HP motor leads in RMPU coaches
a. 6 sq. Mm (84/0.3) b. 4 sq. mm (56/0.3)
c. 1.5 sq. mm d. None (a)
127. The size of the cable recommended for 0.75 HP to 2 HP motor leads in RMPU coaches
a. 6 sq. Mm (84/0.3) b. 4 sq. mm (56/0.3)
c. 1.5 sq. mm d. None (b)
128. The size of cable recommended for control panel wiring of RMPU coaches
a. 6 sq. mm b. 4 sq. mm c. 1.5 sq. mm d. None (c)
129. Rotor shafts of RMPU motors are made out
a. EN.8 b. EN.9 c. Both a and c d. None (c)
130. The Study state temperature rise of stator winding of compressor motor of H class RMPU should not exceed above ambient of 65°C with full load at rated voltage is
a. 70°C b. 80°C c. 100°C d. None (b)
131. The Study state temperature rise of stator winding of condenser/ blower motor of F class RMPU should not exceed above ambient of 65°C with full load at rated voltage is
a. 70°C b. 80°C c. 100°C d. None (a)
132. The type of insulation recommended for condenser and evaporator motor in RMPU coaches are
a. F class b. A class c. B class d. None (a)
133. The type of insulation recommended for compressor motor in RMPU coaches
a. F class b. H class c. B class d. None (b)
134. Capacity of WRA mono block pump in RMPU coaches
a. 0.5 HP/0.37 KW at 415 V 50 Hz PF 0.5 b. 1.0HP/0.746 KW at 415 V 50HZ PF 0.5
c. 1.5 HP/ 1.1 KW at 415 V 50 HZ PF 0.5 d. None (a)
135. Control panel of RMPU coach works
a. 110 V AC 50Hz b. 230V AC 50Hz
c. 415 V AC 30Hz d. None (a)
136. The maximum ripple content of 415/110 V supply fed to control circuit can
a. 10% b. 15% c. 20% d. 25% (a)
137. No of over load relay provided in the control panel of one RMPU
a. 3 b. 5 c. 7 d. None (b)

138. No of time delay relays provided in one RMPU are (b)
a. 3 b. 2 c. 4 d. 1
139. No of control transformers provided in RMPU AC coach (a)
a. 1 b. 2 c. 3 d. None
140. The capacity of control transformer provided in RMPU coach (a)
a. 400 VA b. 1000 VA c. 2500 VA d. None
141. The capacity of C1, C2, C3 contactor provided in control panel of RMPU coach is (a)
a. 16 A b. 50 A c. 32 A d. None
142. The purpose of time delay relay I is (a)
a. To delay compressor I operation for 2 minutes
b. To delay the compressor II operation for 2.5 minutes
c. To delay the condenser I operation for 2 minutes
d. To delay the condenser II operation for 2.5 minutes
143. The purpose of time delay relay II (b)
a. To delay compressor I operation for 2 minutes
b. To delay the compressor II operation for 2.5 minutes
c. To delay the condenser I operation for 2 minutes
d. To delay the condenser II operation for 2.5 minutes
144. The duration of TDR- I delay setting (a)
a. 2 min b. 2.5 min c. 3.5 min d. none
145. The duration of TDR- II delay setting (b)
a. 2 min b. 2.5 min c. 3.5 min d. none
146. The current carrying capacity of rotary switch RSWI provide in control panel of RMPU coach is (a)
a. 63 A b. 16 A c. 6/8 A d. None
147. Make of rotary switches recommended by RDSO to provide in control panel of RMPU AC Coach is (c)
a. Salzer b. Keycee c. Both a & b d. None
148. Makes of contractors recommended by RDSO to provide in control panel of RMPU AC Coach is (c)
a. L&T b. BCH c. Both a & b d. None
149. RMPU over load relay one (OLI) NC contract is connected in series to the (a)
a. Blower contractor coil b. Auxiliary contractor coil
c. Condenser I&II contractor Coil d. Compressor I&II contractor coils
e. Heaters I&II contractor coils f. All of the above
150. RMPU Air loses indication LED glows when vane relay contract are in (a)
a. Open condition b. Closed condition
c. Both a & b d. None
151. If blower fan motor is defect in RMPU coach. The result will (d)
a. Condenser motors did not switch ON b. Compressor did not switch ON
c. Heater did not switch ON d. All of the above

152. If vane relays are defective in RMPU coach the results will (d)
 a. Condenser motors did not switch ON b. Compressor did not switch ON
 c. Heaters did not switch ON d. All of the above
153. If single phasing occurred on any one of the motor, in RMPU Coach, result will (c)
 a. Motor trips b. Motor failure indication occurs
 c. Both a & b d. None
154. AC system is operating in manual mode, both condenser motors defective in RMPU coach, the result will be (d)
 a. High pressure develops b. HP1 and HP2 open
 c. compressors tips d. All of the above
155. System working in manual cooling mode, blower or vane relays became defective in RMPU coach, the results will be (d)
 a. Low pressures develops b. LP1, LP2 open
 c. Both compressor will trip in 15 minutes d. all of the above
156. The system is working in manual heating mode, blower/vane relay defective in RMPU the result will be (d)
 a. temperature shoots up b. OHP1, OHP2 open
 c. Heater switches off d. All of the above
157. If heaters are ON condition, in RMPU then compressor and condensers will be (b)
 a. ON condition b. OFF Condition
 c. Switches off after 15 minutes d. None
158. If time delay relay-I fails to operate in RMPU the result will be (b)
 a. Compressor-I switches on
 b. Compressor-I does not switch on
 c. Compressor switches on but after two minutes it switches off
 d. None.
159. If time delay relay two fails to operate in RMPU the result will be (b)
 a. Compressor-II switches on
 b. Compressor-II does not switches on
 c. Compressor-II switches on but switches off 2.5 minutes.
 d. None.
160. AC system is working on vent mode in RMPU then (a)
 a. Blower only works b. Heater only works
 c. Entire cooling systems works d. None
161. AC system is working in auto mode in RMPU then (c)
 a. It works on cooling mode only b. It works on heating mode only
 c. It works on both (a) & (b) d. None
162. If system works on manual cooling mode in RMPU then (d)
 a. Blower works b. Two condensers works
 c. compressor works d. All of the above

163. If system work on manual heating mode in RMPU then (c)
 a. Blower works b. Heater works
 c. Both (a) & (b) d. None
164. Vapour compressor system used in Railways consists of (g)
 a. Compressor b. Condenser
 c. Expansion valve d. Evaporator
 e. Dehydrator and filter f. Accumulator or liquid receiver
 g. All of the above.
165. The purpose of low pressure cut out used in vapour compression system is (c)
 a. It shuts down the compressor if the suction pressure drops down
 b. It automatically resets if the pressure becomes normal
 c. Both (a) & (b)
 d. None.
166. Number of WRAs are available in RMOU AC Coach are (b)
 a. 1 b. 2 c. 3 d. None
167. The capacity of overhead tank (Auxiliary tank) provided in RMPU coaches is about (a)
 a. 50 ltr b. 400 ltr c. 300 ltr d. None.
168. Over load setting of compressor motor is in RMPU coaches is (c)
 a. 2.2 A b. 3.2 A c. 10.5 A d. None
169. Capacity of battery used in RMPU AC Coach (b)
 a. 800 AH b. 1100 AH c. 540 Ah d. None
170. Capacity of battery charger used in RMPU AC Coach (a)
 a. 220 A b. 40 A c. 70 A d. None
171. Battery charger used in RMPU AC Coach is also called as (a)
 a. Pre-cooling transformer b. Diesel DC generator set
 c. Both (a) & (b) d. None
172. Number of VRLA cells available in battery of SG RMPU AC Coach (a)
 a. 56 b. 54 c. 112 d. None
173. The capacity of HRC fuses to be provided for 1100AH battery of SG RMPU AC Coach is (a)
 a. 400 A b. 250A c. 100A d. None
174. The location of battery HRC fuse to be provided for 1100 AH battery of SG RMPU AC coach is (c)
 a. At positive of the battery b. At negative of the battery
 c. Both (a) & (b) d. None
175. The purpose of power selector rotary switch RSW1 provided in power panel of RMPU AC Coach is (c)
 a. To select alternator one and battery b. To select alternator two and battery
 c. To select alternator one & two and battery d. All the above

176. The capacity of plant selector rotary switch RSW2 provided in power panel of RMPU AC coach is (a)
 a. 300 A b. 400A c. 63A d. None
177. The capacity of positive HRC fuse to be provided for inverter (before RSW2) in plant selector circuit (a)
 in power panel of RMPU AC Coach is
 a. 250A b. 400A c. 63A d. None
178. The capacity of HRC fuses to be provided for 415V 3phase supply of pre-cooling battery (a)
 Charger of RMPU AC coach is.
 a. 63A b. 160A c. 400A d. None
179. The capacity of power selector RSW1 provided in power panel of RMPU AC coach is (a)
 a. 500A b. 160A c. 16A d. None
180. HFC refrigerant recommended for RMPU coaches in place of R22 is (b)
 a. R 134a b. R 407C c. R 290 d. None
181. Input supply for the Electronic thermostats controlling unit is (c)
 a. 110V DC b. 110AC c. either of one d. None.
182. Inverters Convert (b)
 a. AC into DC b. DC into AC c. Both (a) & (b) d. None
183. Input voltage range to the under slung/on board inverter roof mounted AC coach 25 KVA inverter is. (a)
 a. 90 to 140V DC with $\pm 15\%$ ripple (103.5V to 154V)
 b. 70 to 170V DC with $\pm 15\%$ ripple
 c. 80 to 200V DC with $\pm 15\%$ ripple
 d. None
184. Output voltage of underslung/on board roof mounted AC Coach 25KW inverter is (a)
 a. 415V $\pm 5\%$ 3phase 50Hz b. 230V $\pm 5\%$ 1phase 50Hz
 c. 110V $\pm 5\%$ 3phase 50Hz d. none

9. LHB COACHES

1. What is the rating of distribution transformer used in LHB AC Coaches
 a. 30KVA b. 20KVA c. 60KVA d. 30KVA/4 (a)
2. What is the integrated panel control supply in LHB AC Coach
 a. 110V AC b. 110V DC c. 415V 3Ø AC d. 750V 3Ø AC (b)
3. What is the rating of Battery used in LHB AC Coach
 a. 800Ah b. 70Ah c. 1100Ah d. 90Ah (a)
4. What is the rating Battery fuse used in LHB AC Coach
 a. 100A b. 32A c. 40A d. 63A (b)
5. What is the rating of LHB AC Coach 750V side fuse
 a. 100A b. 125A c. 63A d. 250A (b)
6. What is abbreviation of RBCR
 a. Regulated Hooster current b. Regulated Battery charger
 c. Regulated Battery Current d. None. (b)
7. The Main function of RBCR used in LHB Coach
 a. To Charge the battery b. To feed control supply
 c. To feed supply light and fans d. All the above. (d)
8. What is input supply to RBCR in LHB coach
 a. 110V AC b. 110V DC c. 230V AC d. 415V 3Ø AC (d)
9. What is the capacity of RBCR
 a. 2.5 KW b. 5KW c. 6.5KW d. 10KW (c)
10. What is the RDSO specification number of RBCR used in LHB coach
 a. RDSO/PE&PEC/AC/0129-2009 (Rev-I)
 b. RDSO/PE/SPEC/AC/0056-2014 (Rev-I)
 c. EDTS-041-Rev A
 d. None (a)
11. What is the maximum out put current DC Current of RBCR in LHB coach
 a. 50A b. 220A c. 20A d. None (a)
12. Output Voltage Range of RBCR in LHB Coach
 a. 110V - 135V DC b. 110V-135V AC c. 415V AC d. None (a)
13. What is abrivation of EBCR used in LHB AC Coach
 a. Emergency Battery charger b. Emergency Boost charger
 c. Emergency Back up charger d. None (a)
14. What is the rating of EBCR in LHB AC Coach
 a. 0.5KW b. 2.5KW c. 6.5KW d. None (b)
15. What is the input supply of EBCR in LHB coach
 a. 110V AC b. 110V DC c. 230V AC d. 415V, 3Ø AC (c)
16. What is the out put supply voltage of EBCR in LHB coach
 a. 110V AC b. 110V DC c. 230V AC d. 415V, 3Ø AC (b)

17. What is the maximum current out put of EBCR in LHB coach (b)
a. 220A b. 20A c. 63A d. 35A
18. what is the RDSO specification number of EBCR in LHB AC coach (c)
a. RDSO/PE/SPEC/AC/0129-2009(Rev-1) b. RDSO/PE/SPEC/AC/0056-2014(Rev-1)
c. EDTS-163, Rev-C d. EDTS-041, Rev-A
19. What id the purpose of EBCR in LHB AC coach (b)
a. Give supply to the AC plant b. To give control supply to power panel in emergency
c. To give supply to mobile chargers d. None
20. When the EBCR in LHB AC coach is starts functioning (b)
a. It starts when coach is dark b. It starts when RBCR is fails to work
c. It starts on Pre-cooling supply d. None
21. What is the supply of end on generation system in LHB (a)
a. 150V, 50Hz, 3Ø, AC b. 230V, AC c. 415V, 3Ø, 50Hz d. None
22. How many distribution transformer per coach in LHB AC coach (a)
a. One b. Two c. Three d. None
23. How many vane relays are available in LHB AC coach (d)
a. One b. Two c. Four d. None
24. EOG power car supply Is feeded to coaches by LHB coaches (b)
a. IV coupler b. ZS coupler c. CBC coupler d. None
25. EOG power car supply is feeded to AC coaches in Garibrath AC coaches by (a)
a. IV coupler b. ZS coupler c. CBC coupler d. None
26. How many ZS couplers having per coach (a)
a. Two male and Two female b. Four male and four female
c. Three male and Three female d. None
27. What is capacity of the fuse provided in 415 voltage side of LHB AC (a)
a. 100A b. 125A c. 80A d. 63A
28. What is capacity of the fuse provided in local main supply of LHB AC (c)
a. 100A b. 125A c. 80A d. 63A
29. How many fuses of 32A are provided in positive fuse box of LHB AC coach (a)
a. One b. Two c. Three d. Nil
30. How many fuses of 32A are provided in negative fuse box of LHB AC coach (b)
a. One b. Two c. Three d. Nil
31. What is input supply of microprocessor in LHB AC coach (b)
a. 110V Ac b. 110V DC c. 230V AC d. 415V AC
32. Contactor K1 and K2, are for what purpose in LHB AC coach (a)
a. for feeder selection b. for local supply c. Transformer d. None

33. Contactor K41 and K42 are for what purpose in LHB AC coach (b)
 a. for feeder selection b. for local supply c. Transformer d. All the above
34. Contactor K43 is for what purpose in LHB AC coach (c)
 a. for DC supply b. Feed supply selection
 c. for local main supply d. Transformer supply
35. What is the abbreviation form of D and ED in LHB AC coach (a)
 a. Disconnection and Earthing device b. Disconnecting and Energizing device
 c. Dead and Energizing device d. None
36. What is the purpose of Disconnecting and Earth in Device in LHB coach (a)
 a. Disconnecting the circuit and Earthing in Off position b. Connecting and Earthing
 c. Disconnecting and Earthing in On position d. None
37. What is the abbreviation of MMR used in LHB coach (c)
 a. Measuring and Minimising Relay b. Measuring and Maximising
 c. Measuring and Monitoring Relay d. All the above
38. How many MMR are available in 750V side in LHB AC coach (c)
 a. 1 b. 3 c. 2 d. 4
39. How many MMR are available in 415V side in LHB AC coach (a)
 a. 1 b. 3 c. 2 d. 4
40. What purpose K05 contactor using in LHB coach d. for WRA (c)
 a. for lighting circuit b. for RMPU c. for WSP
41. How many centrifugal double inlet exhaust fans are available in LHB AC coach (b)
 a. 1 b. 2 c. 3 d. 4
42. How many fans are available in LHB coaches in which are manufactured after 2015 in passenger area (c)
 a. 18 b. 20 c. 16 d. None
43. What is the contactor number of WRA in LHB AC coach (b)
 a. K1, K2 b. K28, K29 c. K24, K25 d. K30, K31
44. What is the indicating MPCB number of WRA (b)
 a. F85, F86 b. F21, F22 c. F30, F31 d. None
45. What is the abbreviation of MPCB (a)
 a. Motor pump case breaker b. Motor protection circuit breaker
 c. Monitoring protecting circuit breaker d. None
46. What is the rating range of MPCB of WRA pump in LHB (b)
 a. 1.0A to 1.6A b. 1.5A to 2.5A c. 2.5 to 3.0A d. 3.0A to 3.5A
47. What is the Rating range of MPCB for exhaust fan in LHB AC coach (c)
 a. 1.0A to 1.6A b. 0.1A to 2.5A c. 2.5A to 3.0A d. None
48. What is the contactor number of fresh air flap motor in LHB AC coach (c)
 a. K8 b. K9 c. K21 d. K44
49. What is the input supply for flap motors in LHB AC coach
 a. 110V AC b. 110V DC c. 24V DC d. 230V AC

50. What is the blower contactor number in LHB AC coach PP side (a)
 a. K28 b. K26 c. K31 d. K32
51. What is the blower contactor number of NPP side RMPU in LHB AC coach n. K28 (b)
 b. K26 c. K31 d. K32
52. What is condenser motors contactor number PP side of LHB AC coach (a)
 a. K36, K37 b. K38, K39 c. K28, K26 d. None
53. What is condenser motors contactor number NPP side RMPU in LHB AC coach (b)
 a. K36, K37 b. K31, K32 c. K28, K26 d. None
54. What is compressor contactors of PP side of LHB AC coach (d)
 a. K36, K37 b. K31, K32 c. K28, K26 d. K38, K39
55. What is compressor motors contactor number NPP side RMPU in LHB AC coach (d)
 a. K36, K37 b. K31, K32 c. K38, K39 d. K33, K34
56. What is Heater contactor number of PP side RMPU in LHB AC coach (c)
 a. K33 b. K35 c. K40 d. K39
57. What is Heater contactor number of NPP side RMPU in LHB AC coach (b)
 a. K33 b. K35 c. K40 d. K39
58. What is the input supply voltage for pump controller in AC coach (d)
 a. 110V AC b. 110V DC c. 24V DC d. All the above
59. How many Insulation control relays available in LHB AC Coach (b)
 a. One b. Two c. Three d. Four
60. What is the function of Insulation control relays in LHB AC coach (b)
 a. Gives indication of higher insulation in panel
 b. Gives indication of lower insulation in panel
 c. Not indicate anything
 d. Indicate supply position
61. K05 timer belongs for which device in LHB coach (c)
 a. Timer for AC compressor b. Timer for AC plant
 c. Timer for Anti skid device d. None of the above
62. Contactor K06 belongs to which circuit in LHB AC coach (b)
 a. Anti skid device b. Electro pneumatic break application
 c. AC plant d. None of the above
63. Contactor K07 belongs to which circuit in LHB AC coach (c)
 a. Anti skid device b. Electro pneumatic break application
 b. Electro pneumatic break release d. None
64. Contactor K08 belongs to which circuit in LHB AC coach (a)
 a. MVR of level 1 b. MVR of level 2 c. MVR of level 3 d. None
65. What is the abbreviation of MVR in LHB AC coach (a)
 a. Minimal voltage relay b. maximum voltage relay
 c. Maximum value relay d. None
66. Contactor K-23 indicates which supply availability in LHB AC coach (c)
 a. 110V DC b. 110V AC c. 415V AC d. None

7

67. F-01 MCB (triple pole) 10A belongs to which motor in LHB AC coach (a)
 a. Blower motor of unit 1 b. Condenser motor of unit 1
 c. Condenser motor of unit 2 d. Blower motor of unit 2
68. F-02 MCB (Triple pole) 10A belong to which motor in LHB AC coach (b)
 a. Blower motor of unit 1 b. Blower motor of unit 2
 c. Condenser motor of unit 1 d. Condenser motor of unit 2
69. F-03 MCB (Triple pole) 20A belong to which motor in LHB AC coach (c)
 a. Blower motor of unit 1 b. Blower motor of unit 2
 c. Condenser motor of unit 1 d. Condenser motor of unit 2
70. F-05 MCB (Triple pole) 20A belong to which motor in LHB AC coach (b)
 a. Compressor motor of unit 1 b. Compressor motor of unit 2
 c. Blower motor of unit 1 d. Blower motor of unit 2
71. F-04 MCB (Double pole) 10A belong to which motor in LHB AC coach (c)
 a. Compressor motor of unit 1.1 b. Compressor motor of unit 1.2
 c. Crank case heaters for CP 1.1 and CP 1.2 d. None
72. F-06 MCB (Triple pole) 10A belong to which motor in LHB AC coach (a)
 a. Condenser motor of unit 1.1 b. Condenser motor of unit 1.2
 c. Condenser motor of unit 2.1 d. Condenser motor of unit 2.1
73. F-07 MCB (Triple pole) 10A belong to which motor in LHB AC coach (b)
 a. Condenser motor of unit 1.1 b. Condenser motor of unit 1.2
 c. Condenser motor of unit 2.1 d. Condenser motor of unit 2.1
74. F-08 MCB (Triple pole) 6A belong to which motor in LHB AC coach (a)
 a. Heater of unit-1 b. Heater of unit-2
 c. Blower motor unit-1 d. None
75. F-09 MCB (Triple pole) 20A belong to which motor in LHB AC coach (d)
 a. Blower motor-1 b. Blower motor-2
 c. Compressor motor 2.2 d. Compressor motor 2.1
76. F-10 MCB (Double pole) 10A belong to which circuit in LHB AC coach (d)
 a. Heater of unit-1 b. Heater of unit-2
 c. Crank case heaters for CP 1.1 and CP 1.2 d. Crank case heaters for CP 2.1 and CP 2.2
77. F-11 MCB (Triple pole) 20A belong to which motor in LHB AC coach (a)
 a. Compressor motor of unit 2.1 d. Compressor motor of unit 2.2
 c. Compressor motor of unit 1.1 d. Compressor motor of unit 1.2
78. Net 1 and Net 2 of LHB AC can be selected at a time (a)
 a. No b. Yes c. Both working at time d. None
79. Why the Net 1 and Net 2 can not be selected at a time in LHB coach (c)
 a. Since there is a different supply b. Since there is no supply
 c. Since there is a different supply d. All of the above

80. Contactor K- 44 for which supply feed to coach in LHB type AC coach (c)
 a. 110V AC supply b. 110V AC supply
 c. 60 KVA transformer out put supply d. None of the above
81. In LHB type RMPU, what type of overheat protection available (c)
 a. OHP b. ESTI c. Both (a) and (b) d. None of the above
82. When ESTI fuse link protection comes in circuit in LHB RMPU (c)
 a. If OHP fail to operate b. If heating temperature
 c. Both (a) and (b) d. None
83. ESTI self-destroying type fusible link of heater circuit in LHB RMPU in series with which supply (d)
 a. 110V AC b. 230V AC c. 110V DC d. 415V AC, 3Ø
84. How many sensors are available in LHB AC coach for sensing the temperature parameters (d)
 a. 3 b. 4 c. 5 d. 6
85. Humidity control is facility is available in which type coach (c)
 a. Under slung type AC b. SG type RMPU
 c. LHB type RMPU d. None of the above
86. Why LHB RMPU motor are in built with OTP (a)
 a. To sense and protect against over temperature
 b. To sense and protect against lower temperature
 c. To sense and protect against lower temperature
 d. To sense and protect against low IR value
87. What are the under gear safety items to be checked in LHB AC coach (e)
 a. Junction boxes b. 60 KVA transformer c. WRA pumps d. Battery box
 e. all of the above
88. What is abbreviation of (c)
 a. Like Half man bush b. Link Half man Bosh
 c. Link Half man bush d. None
89. LHB Technology was imported from which (cl)
 a. Japan b. USA c. Italy d. Germany
90. Ist Alstam LHB coach designed and manufactured and commissioned on (a)
 a. 23 june 2003 b. 23 june 2004 c. 23 june 2005 d. None
91. Length of LHB Coach is (b)
 a. 22.54M b. 23.54M c. 24.54M d. 25.54M
92. Passenger capacity of 2-AC LHB coach (d)
 a. 46 b. 48 c. 52 d. 54
93. Passenger capacity of 3-AC LHB coach (d)
 a. 46 b. 56 c. 64 d. 72

94. Which AC coaches are designed with Moisture control (c)
 a. Under slung type b. RMPU type c. LHB type d. All the above
95. 750V Circuit insulation test to be done by with.....Volts megger (c)
 a. 230V b. 500V c. 1000V d. None
96. 415V circuit cables insulation test to be done by with.....Volts megger (c)
 a. 230V b. 500V c. 1000V d. None
97. 230/190V circuit cables insulation test to be done by with.....Volts megger (b)
 a. 230V b. 500V c. 1000V d. None
98. 110V circuit cables insulation test to be done by with.....Volts megger (b)
 a. 230V b. 500V c. 1000V d. None
99. 24V circuit cables insulation test to be done by with.....Volts megger (a)
 a. 230V b. 500V c. 1000V d. None
100. 415 Volts circuit cable insulation test done by 1000V megger the value should not less than.....ohms (b)
 a. 2 Ohms b. 3 ohms c. 5 ohms d. 10 ohms
101. 230/190V circuit cable insulation test done by with 500 megger the value should not less than.....ohms (a)
 a. 2 ohms b. 3 ohms c. 5 ohms d. 10 ohms
102. 110V circuit cable insulation test done by with 500 megger the value should not less than... ohms (a)
 a. 2 ohms b. 3 ohms c. 5 ohms d. 10 ohms
103. LHB type one RMPU cooling capacity (c)
 a. 5Ton b. 6ton c. 7ton d. None
104. LHB type one RMPU power consumption capacity.....KW (d)
 a. 10.6KW b. 12.6KW c. 13.0KW d. 13.6KW
105. LHB type one compressor motor power consumption capacity.....KW (a)
 a. 5.25KW b. 6.25KW c. 7.25KW d. None
106. LHB type RMPU Manufacturing firms are (d)
 a. M/S Sidwal b. M/S LLOYD c. M/S Stesalit d. All the above
107. Refrigerants used in LHB RMPU are (d)
 a. R134a b. R22 c. 407C d. (b) & (c)

11. EOG POWER CAR

1. What is the meaning of EOG? (b)
 - a. End off generation
 - b. End on generation
 - c. End over generation
 - d. All the above.
2. What is the supply voltage of EOG system? (d)
 - a. 415 V AC
 - b. 440 V AC
 - c. 750 V DC
 - d. 750 V AC
3. What is the capacity of alternator of EOG power car? (c)
 - a. 280 KVA
 - b. 490 KVA
 - c. 500 KVA
 - d. 450 KVA
4. What is the unit for capacity of a diesel engine? (c)
 - a. HP
 - b. HHP
 - c. BHP
 - d. KVA
5. What is the operating speed of diesel engine of EOG power car? (b)
 - a. 1800 rpm
 - b. 1500 rpm
 - c. 2000 rpm
 - d. 1000 rpm
6. What is the battery voltage and capacity of engine starting batteries in EOG power car? (b)
 - a. 8V 290 AH
 - b. 24V 290 AH
 - c. 24V 450 AH
 - d. 8V 450 AH
7. No. of engines available in a EOG power car is ___? (b)
 - a. 1
 - b. 2
 - c. 4
 - d. 3
8. What is the quantity and capacity of transformers in LHB type EOG power car? (c)
 - a. 2 nos. of 50 KVA and 1 no. of 60 KVA
 - b. 4 Nos. of 50 KVA
 - c. 3 Nos. of 60 KVA
 - d. 20 Nos. of 50 KVA and 2 Nos of 60 KVA
9. How many ventilator fan motors are available in a EOG power car? (b)
 - a. 3
 - b. 4
 - c. 2
 - d. 8
10. What is the rating of ventilator fan motor of EOG power car? (a)
 - a. 7.5 HP
 - b. 5 HP
 - c. 10 HP
 - d. 20 HP
11. High water temperature switch of diesel engine of Power car is set at what temperature? (d)
 - a. 100 deg C
 - b. 99 deg C
 - c. 95 deg C
 - d. 97 deg C
12. What does LLOP stand for? (a)
 - a. Low lube oil pressure
 - b. Low lube over pressure
 - c. Low level oil pressure
 - d. Lower level oil pressure
13. Over speed switch of diesel of EOG power car is set at ___rpm? (b)
 - a. 1500 +/- 5 % rpm
 - b. 1800 +/- 4.5 % rpm
 - c. 1800 rpm
 - d. 1500 rpm
14. The UVR of alternator of power car operates at set voltage of ___? (c)
 - a. 600 V
 - b. 715 V
 - c. 687 V
 - d. 650 V
15. What is the MPCB rating of radiator control panel? (d)
 - a. 68A
 - b. 75A
 - c. 40A
 - d. 63A
16. What is the rating of MPCB of ventilator panel? (b)
 - a. 16A
 - b. 10A
 - c. 5A
 - d. 15A

17. Smoke detector in LHB power car works on ___ V? (c)
 a. 24V DC b. 110V AC c. 110V DC d. 24V AC
18. What is the input voltage of SBCR (Starting battery charger) of Power car? (c)
 a. 110V DC b. 415 V AC c. 230V AC d. 110 V AC
19. What is the protections provided in alternator of power car? (d)
 a. Short circuit b. Overload c. Earth Fault d. All the above
20. Frequency of SS-III schedule is - (c)
 a) 2 years b) 3 years c) 6 years d) 5 years
21. Frequency of SS-II schedule is - (c)
 a) 1 year b) 2 years c) 3 years d) 5 years
22. What do you mean by HOG system? (b)
 a. High On generation b. Head on generation
 c. Head over generation d. None of the above
23. In HOG system power is taken from ___? (a)
 a. OHE b. DA Set
 b. Adjacent coach d. None of the above
24. The radiator and ventilator control panel of Power car are ___? (a)
 a. Star delta starter b. DOL starter
 c. Capacitor start capacitor run starter d. None of the above
25. What is the present CPCB norms followed by diesel engines of EOG power car? (Ans. b)
 a. CPCB I b. CPCB II c. CPCB III d. CPCB IV
26. What Is the abbreviation of CPCB ? (c)
 a. Central population control board
 b. Central pollution checking board
 c. Central pollution control board
 d. None

NON TECHNICAL

Item No.	Description		Page No.
1.	ESTABLISHMENT	-	89
2.	STORES/PROCUREMENT	-	92
3.	RAJBASHA HINDI	-	95

1. ESTABLISHMENT

1. What is the main object of the payment and wages Act? (c)
 a) Wages should be paid in time b) No unauthorized deductions from Wages
 c) Both a and b d) None.
2. When payment and wages Act came in to operation w.e.f. in India? (c)
 a) 21.1.1937 b) 21.2.1937 c) 21.3.1937 d) 21.4.1937
3. What are the permissible deductions from wages? (d)
 a) Fine
 b) Deduction for absence from duty, towards damages or loss
 c) Deduction of provident fund, advance & Loans d) All the above
4. What is the abbreviation of HOER? (a)
 a) Hours of employment regulations b) Hours of employment rules
 c) Hours of Employment roster d) none
5. Classification of HOER? (d)
 a) Intensive b) Essentially intermittent c) Continues & Excluded d) All the above
6. What is the abbreviation of WCA? (b)
 a) Worker compensation act b) Workmen's compensation act
 c) Worker company act d) None
7. When factory act 1948 came in force? (d)
 a) w.e.f. 1.1.1949 b) w.e.f. 1.2.1949 c) w.e.f. 1.3.1949 d) w.e.f. 1.4.1949
8. What is mean by "suspension"? (a)
 a) Suspension is an action where by railway servant is kept out of duty
 b) Suspension is an action where by railway servant is remove from duty
 c) Suspension is an action where by railway servant is dismissed from duty
 d) None
9. In respect of one disability special disability leave shall in no case exceed. (b)
 a. 12 months b. 24 months c. 28 months d. none of these
10. Railway servant working in administrative office is entitled for casual leave (b)
 a. 12 days b. 08 days c. 11 days d. none of these
11. The distances of transferred stations of Railway employee are 2025 KMs. He is entitled for joining time? (c)
 a. 12 days b. 10 days c. 15 days d. none of these
12. School; pass are granted according to (b)
 a. Calendar Year b. Academic Year c. financial Year d. none of these
13. The weekly duty hours of a clerk in the administrative office is (a)
 a. 42 Hours b. 45 Hours c. 40 Hours d. 48 Hours
14. A running staff after performing 9 hours duty is entitled to rest at Head Quarter (c)
 a. 12 Hours b. 14 Hours c. 16 Hours d. 10 Hours
15. The long on period in case of "continuous" staff is: (b)
 a. 08 Hours b. 12 Hours c. 14 Hours d. 10 Hours

16. Railway staff is eligible for TA/DA if he goes out of his head quarter (a)
a. beyond 8 KM b. beyond 6 KM c. beyond 10KM d. none of these (b)
17. Railway servant shall be entitled to (d)
a. 15 days LAP in a Calendar Year b. 30 days LAP in a Calendar Year
c. 20 days LAP in a Calendar Year d. none of these (c)
18. Maximum limit for accumulation of LIAAP is (c)
a. 240 days b. 180 days c. 300 days d. No limit for accumulation
19. Leave not due may granted to Railway Servant at a time (c)
a. 60 days b. 90 days c. 360 days d. none of these
20. All kind of leave in one spell shall not exceed (a)
a. 02 years b. 04 years c. 05 years d. none of these.
21. Maximum Hospital leave granted to Railway Servant in one spell (a)
a. 24 months b. 28 months c. 12 months d. None of these
22. 04 set of PTO are admissible to (a)
a. all groups b. Group A & B officers only
c. Group A, B & C only d. None of these
23. According to Rule -13 A , of Services Conduct Rule a Railway Servant desires to file a (a)
defamation suit in his private capacity, he is
a. Required to obtain permission before filing suit b. No permission required before filing suit
c. both a&b d. none of these (c)
24. The holder of Silver pass can travel in 1st AC (c)
a. Self only b. With his family up to 4 members. c. with wife d. None of these
25. According to Rule -13 A , of Services Conduct Rule a Railway Servant (c)
a. can not take dowry b. cannot accept dowry
c. Both A & B d. none of these (a)
26. Member ship for clubs & Institute in Division is (a)
a. Optional b. Compulsory
c. On some division optional and on some Division Compulsory d. None of these (c)
27. Half day LAP is granted to (d)
a. Group C & D employees b. All Railway employees
c. Artisan staff of Workshop/Production unit d. None of these.
28. In which case special pass is not allowed (d)
a. sports tournament b. Territorial Army c. Union meeting d. None of these (c)
29. Condition regarding sale and purchase of immovable property mentioned in (c)
a. Rule-7 b. Rule-9 c. Rule-18 d. none of these (c)
30. For blood donation, special casual leave can be sanction for (c)
a. 02 days b. 03 days c. 01 day d. None of these
31. Group "C" & "D" employees are entitled for three sets of pass on (c)
a. On completion of 01 year service b. On completion of 01 years' service
c. On completion of 05 years service d. None of these

32. Not entitle for running allowance (12)
 a. Driver b. Shunter c. travelling ticket examiner d. Guard
33. Casual leave can be combined with (2)
 a. special casual leave b. LAP c. Hospital leave d. None of these
34. Female Railway servant entitled for maternity leave for (2)
 a. 90 days b. 120 days c. 180 days d. None of these
35. Paternity leave can be sanctioned up to (2)
 a. 12 days b. 20 days c. 15 days d. none of these
36. On Sports Quota recruitment is made in (2)
 a. Group "B" b. Group "C"
 c. Group "C" & "D" d. none of these
37. Recruitment in Group D category from open market is to be done by (2)
 a. Divisional Office b. Railway Recruitment Board
 c. RRC d. None of these.
37. Rule -3 of Service Conduct rule is related to (2)
 a. General Conditions-devotion to duty integrity. b. Demonstration by Railway Servant
 c. Employment of near relative; d. None of these.
38. According to Rule 5 of Conduct Rules Railway Servant (2)
 a. Can be a member of Political Party b. Cannot be a member of Political Party
 c. none of these d. a&b
39. According to Rule -6 Railway Servant (2)
 a. Can Criticize Govt. in public interest. b. Cannot Criticize Govt. in public interest
 c. a & b d. none of these

2. STORES/PROCUREMENT

1. For best Inventory performance results we must combine ABC analysis & VED analysis. (A)
Our first focus should be on
A. Vital & A items B. Vital & C items C. Desirable & A items D. Desirable & C items (A)
2. Stores Directorate in Rly Board is under (B)
A. Member (Mech) B. Member (Elect) C. Member (Staff) D. Financial Commissioner (B)
3. Why is the ABC analysis important (C)
A. for improving service level B. for improving financial performance
C. to improve the profits D. none of the above. (C)
4. For the stores declared surplus by a depot, any returned stores are (A)
A. not to be accepted.
B. to be sent to any other depot where they are required.
C. to be accepted but credit is given only for scrap value.
D. a high level committee is to be set up for taking a decision. (A)
5. Indian Railway stores code is in how many Volumes ? (A)
A. 2 B. 3 C. 4 D. 5 (A)
6. The pre-check of the purchase order by accounts department is necessary if the value is More than (D)
A. Rs. 5,00,000/- B. Rs. 4,00,000/- C. Rs. 1,00,000/- D. above Rs. 7,00,000/- (D)
7. Which one of the following system of codification is followed by Indian Railway for codification of store items? (B)
A. Fully significant coding system B. Semi significant coding system
C. Non-significant coding system D. Color codification coding system (D)
8. In Indian Railways the case is to be dealt by tender committee, when it is a case of (D)
A. Open tender B. Limited tender C. Bulletin tender D. High value tender (B)
8. When the firms are selected and tender enquiry is sent to them, it is a case of (B)
A. Open tender B. Limited tender C. Bulletin tender D. Global tender (B)
9. In Indian Railways the case is to be dealt by tender committee when the purchase value is more than Rs. (D)
A. 10 lakhs B. 20 lakhs C. 25 lakhs D. above 50 lakhs (D)
10. In Indian Railways 'A' category items represent what percentage of total consumption value? (D)
A) 50 % B) 90% C) 65% D) 70% (D)
11. PL No. of an item is 11360010. This item may be an item of (D)
A) Stationery B) Steam Locomotive C) Electrical item D) Diesel Locomotive (D)
12. EOQ is the Quantity at which – (D)
A) Inventory carrying cost is maximum
B) Warehousing cost is minimum
C) Inventory carrying cost + ordering cost is maximum
D) Inventory carrying cost + ordering cost is minimum (D)

13. Tenders are to be invited for purchasing 12000 nos. of Chokes approx. rate of which is Rs. 90/- each.
In this case we will normally invite - (A)
A) Open tender B) Limited tender C) Single tender D) No tender
14. In a PL No. the subgroup to which the item belongs to is represented by - (A)
A) First two digits B) 3rd and 4th digits C) 5th and 6th digits D) 2nd and 3rd digits
15. In ABC analysis of items, "A" category items represent (C)
A) Low consumption value items B) Important items
C) High Annual consumption value items D) High rate items
16. Buffer stock limit depends on - (A)
A) ABC classification of the item B) VED classification of the item
C) Combination of (A) & (B) D) Stock and Non-stock classification of the items
17. Buffer stock is provided - (A)
A) To meet unforeseen requirement B) To supply items to other users
C) To make good shortfall due to theft, deterioration D) To have items out of stock
18. In a VED analysis "V" stands for - (A)
A) Vague items B) Very costly items C) Vital item D) Variety of items
19. Indication of value in the demand is necessary (D)
A) for posting in liability register / fund register B) for knowing the appropriate approving authority
C) for the payment to the supplier D) combination of (A) & (B)
20. Item not required for the purpose for which it was originally purchased is known as - (C)
A) Inactive item B) Scrap item C) Over stock item D) Emergent stock item
21. An item having regular turnover caused by constant demand will be known as - (A)
A) Ordinary Stock Item B) Emergency stock item C) Regular item D) Non- stock item
22. Inactive items are those stock items, stock of which (C)
A) is unserviceable B) more than 3 months old
C) has not been issued to any user for past 12 months D) is more than the requirement of next 24 months
23. Principal Head of Stores Department on a Zonal Railway is - (A)
A) Principle Chief Materials manager B) Chief Controller of Stores
C) Controller of Stores D) Chief Controller of Stores and Purchases
24. Processing of a tender case after the opening of tenders depends on - (C)
A) Estimated value of purchase B) Value of the case as per highest offer
C) Value of the case as per lowest offer D) None of the above
25. An offer received from the firm to whom no inquiry was sent is known as - (C)
A) Single offer; B) Delayed offer; C) Unsolicited offer; D) Unapproved offer
26. Only one offer received in respect to Limited/ Open tender is known as - (C)
A) Single tender; B) PAC offer; C) Single offer; D) Late offer
27. Proprietary Article certificate is to be issued for the item required to be purchased from - (A)
A) Single firm only B) RDSO approved firms only C) Approved firms only D) None of the above

28. Items not required by the user can be returned on (A)
 A) Advice note for returned stores B) Requisition C) Minus issue note D) Indent
29. Ordinary scrap items are those items which are (A)
 A) Of no use in the railway B) Retained for railway's use
 C) To be sold to the staff D) To be sold by public auction
30. On a railway, the items have been classified as A, B, C and V, E, D. While designing stock Level limits for various items, we will provide to keep minimum safety stocks for – (A)
 A) A-V Items B) A- D Items C) C-V Items D) C-D Items.
31. Materials not required are returned to the nominated stores depot as per stores code para number (B)
 A) S - 1539 B) DS-8 C) NS-11 D) SS-11
32. Disposal of scrap may be done by (A)
 (A) Auction (B) Sale by tender
 (C) Sale to other Govt. department and undertaking (D) All above.
33. Custody stores are the stores – (C)
 (A) Which are kept under the custody of indenter
 (B) Custody stores are imprest stock items
 (C) These are charged off stores but kept under the custody of stores depot awaiting future use.
 (D) Custody stores are non-stock items which are surplus with the user
34. Standardisation helps in (D)
 (A) Easy maintenance of equipment by suitable replacement.
 (B) It is easy for the supplier to manufacture the item with suitable technology
 (C) Scale of economy can be achieved
 (D) All of them as above
35. PL No. of an item is 98-05-0400. This item may be an item of (D)
 (A) Uniforms (B) Stationery (C) Steam Locomotive (D) Scrap

3. विभागीय परीक्षाओं के लिए राजभाषा प्रश्न और उत्तर
Questions and Answers on Rajbhasha for Departmental Examinations

1. भारत संघ की राजभाषा क्या है? (ए)
What is the Official Language of the Union of India ?
उ: ए) देवनागरी लिपि में हिंदी बी) ब्रज भाषा सी) संस्कृत डी) ओड़िया
Hindi/ in Devnagari Script.
2. संसद में संविधान का भाग XVII किस तारीख को पारित हुआ? (ए)
On which date, Part XVII of the Constitution was passed in Parliament ?
उ: ए) 14.09.1949. बी) 14.09.1950 सी) 14.09.1963 डी) 14.09.1976
3. राजभाषा अधिनियम 1963 कब पारित हुआ? (बी)
When was the Official Languages Act 1963 passed?
उ: ए) 10.05.1949 बी) 10.05.1963 सी) 10.05.1952 डी) 10.05.1969
4. राजभाषा अधिनियम 1963 कब संशोधित हुआ? (ए)
When was the Official Languages Act 1963 amended?
उ: ए) 1967 बी) 1963 सी) 1964 डी) 1976
5. राजभाषा नियमों के तहत वर्गीकृत तीनों क्षेत्र कौनसे हैं? (ए)
What are all the three regions classified under Official Language Rules ?
उ: ए) 'क', 'ख' ग) बी) य, र, ल, सी) एक, दो, तीन डी) क और ख
'A', 'B' and 'C' Regions.
6. हर साल 'हिंदी दिवस' कब मनाया जाता है? (ए)
When is 'Hindi Day' celebrated every year ?
उ: ए) सितंबर 14 बी) जनवरी 26 सी) सितंबर 24 डी) फरवरी 14
7. राजभाषा नियमों के अनुसार, अंडमान और निकोबार द्वीपसमूह किस क्षेत्र के अंतर्गत आता है? (ए)
According to Official Language Rules, under which region Andaman & Nicobar Islands come?
उ: ए) 'क' बी) ख सी) ग डी) य
ए) 'A' Region.
8. क्षेत्र 'ख' के तहत वर्गीकृत केंद्र शासित प्रदेश कौनसे हैं? (ए)
Which are the Union Territories classified under Region 'B' ?
ए) केंद्र शासित प्रदेश चंडीगढ़, दादरा और नगर हवेली और दमन और दीव
बी) अंडमान और निकोबार

सी) श्रीलंका

डी) जम्मूऔरकाश्मीर

ए) Union Territory of Chandigarh, Dadra & Nagar Haveli and Daman & Diu.

9. अरुणाचल प्रदेश की राजभाषा क्या है?

(ए)

What is the Official Language of Arunachal Pradesh?

उ: ए) अंग्रेजी

बी) उर्दू

सी) हिंदी

डी) कश्मीरी

ए) English.

10. गैर-हिंदी भाषी लोगों को दिए गए आश्वासनों को कानूनी रूप देने के लिए पारित अधिनियम क्या है?

(ए)

What is the Act passed to give legal form to the assurances given to Non-Hindi speaking people?

उ: ए) राजभाषा (संशोधित) अधिनियम-1967 बी) राजभाषा (संशोधित) अधिनियम-1963

सी) राजभाषा (संशोधित) अधिनियम-1957 डी) राजभाषा (संशोधित) अधिनियम-1976

ए) Official Languages Act (Amended) -1967.

11. राजभाषा अधिनियम की धारा 3(3) कबसे प्रभावी है?

(ए)

From when did the Section 3(3) of Official Languages Act take effect?

उ: ए) 26 जनवरी 1965 बी) 26 फरवरी 1966 सी) 26 जनवरी 1972 डी) 26 जनवरी 1959

ए) 26 January 1965.

12. राजभाषा अधिनियम 1963 की धारा (IV) किससे संबंधित है?

(ए)

With which Section (IV) of Official Languages Act 1963 is concerned?

उ: ए) संसदीय राजभाषा समितिके गठनसे संबंधित है

बी) संसद के गठन से संबंधित है

सी) हिंदी को राजभाषा बनाने से संबंधित है

डी) राजभाषा के कार्यान्वयन से संबंधित है

ए) It is concerned with the Constitution of Parliamentary Committee on Official Languages.

13. राजभाषा नीति की जानकारी देनेवाले अनुच्छेद 343-351, संविधान के किस भाग में हैं?

(ए)

In which part of the Constitution are the Articles 343-351, that gave information about Official Language available?

उ: ए) भाग-XVII (सात वे भाग में)

बी) भाग-VII (दूसरा भाग)

सी) भाग-XV (आठ वे भाग में)

डी) भाग-VII (पांच वे भाग में)

ए) Part XVII (In the Seventeenth Part).

14. राजभाषा अधिनियम 1963 की धारा 7 का संबंध निम्नलिखित के साथ है? (ए)
With which Section 7 of Official Languages Act 1963 is concerned?
ए) इसका संबंध उच्च न्यायालयों के निर्णयों में हिंदी या अन्य राजभाषा के वैकल्पिक उपयोग से है
बी) इसका संबंध केंद्र सरकार के कार्यालयों में हिंदी या अन्य राजभाषा के वैकल्पिक उपयोग से है
सी) इसका संबंध राज्य सरकार के कार्यालयों में हिंदी या अन्य राजभाषा के वैकल्पिक उपयोग से है
डी) इसका संबंध केंद्र शासित राज्यों के कार्यालयों में हिंदी या अन्य राजभाषा के वैकल्पिक उपयोग से है
It is concerned with the optional use of Hindi or other Official Language in Judgements in High Courts.
15. राजभाषा अधिनियम 1963, की धाराएं 6 व 7 किस राज्य में लागू नहीं होती हैं? (ए)
In which state, Sections 6 & 7 of Official Languages Act 1963 do not apply?
ए) जम्मू व कश्मीर बी) तेलंगाना सी) दिल्ली डी) तमिलनाडु
Jammu and Kashmir.
16. किन-किन राज्यों में उर्दू को राजभाषा के रूप में घोषित किया गया है? (ए)
In which states, Urdu has been declared as Official Language?
ए) आंध्र प्रदेश व बिहार बी) तमिलनाडु व केरला सी) उत्तर प्रदेश व हरियाणा डी) जम्मू
कश्मीर व दिल्ली
ए) Andhra Pradesh & Bihar.
17. आठवीं अनुसूची में सम्मिलित भाषाओं के नाम लिखें (ए)
Please write the languages Available in the 8th schedule.
उ: ए) 1. असमिया, 2. बंगला, 3. गुजराती, 4. हिंदी, 5. कन्नडा, 6. कश्मीरी, 7. कोंकणी, 8. मलयालम
9. मणिपुरी, 10. मराठी, 11. नेपाली, 12. उडिया, 13. पंजाबी, 14. संस्कृत, 15. सिंधी, 16. तमिल
17. तेलुगु, 18. उर्दू, 19. बोडो, 20. संथाली, 21. मैथिली
1. Assamese, 2. Bengali, 3. Gujarati, 4. Hindi, 5. Kannada, 6. Kashmiri, 7. Konkani, 8. Malayalam
9. Manipuri, 10. Marathi, 11. Nepali, 12. Odia, 13. Punjabi, 14. Sanskrit, 15. Sindhi, 16. Tamil, 17. Telugu
Urdu, 19. Bodo, 20. Santhali, 21. Mythili, 22. Dogri.
18. 'कृपया 'बी' क्षेत्र के अंतर्गत आनेवाले राज्यों का उल्लेख करें (ए)
Please mention the states coming under 'B' Region.
ए) गुजरात, महाराष्ट्र, पंजाब, चंडीगढ़, दादरा और नगर हवेली तथा दमन और दीव
बी) आंध्र प्रदेश, कर्नाटक, तमिलनाडु, सी) मध्य प्रदेश, केरला, ओडिसा डी) छत्तीसगढ़, उत्तर प्रदेश, राजस्थान
ए) Gujarat, Maharashtra, Punjab, Chandigarh, Dadra & Nagar Haveli and Daman & Diu.

19. वर्तमानमें संविधान की आठवीं अनुसूची में कितनी भाषाओंको सूची बद्ध किया गया है? (ए)
At present how many languages are enlisted in the Eighth Schedule of the Constitution?
उ: ए) 22 बी) 24 सी) 25 डी) 28
20. संविधान के भाग V-में राजभाषा-नीति संबंधित उपबंध के तिरा अनुच्छेद में है? (ए)
In which Article is the provision regarding OL Policy available in Part-V of the Constitution?
उ: ए) अनुच्छेद 120 बी) अनुच्छेद 240 सी) अनुच्छेद 100 डी) अनुच्छेद 90
A) Article 120 B) Article / 240 C) Article / 100 D) Article / 90
21. संविधान की आठवीं अनुसूची-संबंधी प्रावधान जिस में उपलब्ध है उस अनुच्छेद का नाम बताइए (ए)
Name the article in which the provision of the Eighth Schedule of the Constitution is available.
ए) अनुच्छेद 344(1) और 351 बी) अनुच्छेद 342(1) और 350 सी) अनुच्छेद 244(1) और 251
ए) Article/ 344 (1) and 351.
22. राजभाषा अधिनियम (1963) क्यों पारित किया गया? (ए)
Why was the OL Act 1963 passed?
उ: ए) 1965 के बाद भी हिंदी के साथ अंग्रेजी का उपयोग करने के लिए
बी) 1965 के बाद अंग्रेजी के उपयोग को बंद करने के लिए
सी) हिंदी के उपयोग को बंद करने के लिए
डी) हिंदी और अंग्रेजी के उपयोग को तुरंत बंद करने के लिए
To use English along with Hindi even after 1965.
23. राजभाषा नियम कब पारित हुआ? (ए)
When was the Official Language Rules passed?
उ: ए) 1976. बी) 1963 सी) 1981 डी) 1952
24. संविधान के भाग XVII में कितने अनुच्छेद हैं? (ए)
How many Articles are there in Part XVII of the Constitution?
उ: ए) नौ बी) दस सी) आठ डी) सात
25. अनुच्छेद 344, के अनुपालन में राजभाषा आयोग का गठन कब किया गया था? (ए)
In compliance of Article 344, when was the Official Language Commission formed?
उ: ए) वर्ष 1955 में बी) वर्ष 1956 सी) वर्ष 1963 डी) वर्ष 1976
26. राजभाषा आयोग का पहला अध्यक्ष कौन था? (ए)
Who was the First Chairman of the Official Language Commission?
उ: ए) श्री बी.जी. खेर बी) श्री डॉ. अम्बेडकर सी) श्री जी.बी. पंत डी) श्रीमती सरोजनी नायडु

27. राजभाषा आयोग की शुरुआत पर विचार करने के लिए गठित समिति के अध्यक्ष कौन थे ? (सी)
Who was the First Chairman of the Committee which was formed on the recommendation of the Official Language Commission?
- उ: ए) श्री बी.जी. खेर बी) श्री डॉ. अम्बेडकर सी) श्री जी.बी. पंत डी) श्रीमती सरोजिनी नायडु
Shri. G.B. Pant.
28. संविधान के अनुसार सांविधिक नियम, विनियम और आदेशों का अनुवाद कौन करता है?
As per the Constitution, who is translating the statutory rules, regulations and orders? (ए)
- उ: ए) विधि मंत्रालय बी) गृह मंत्रालय सी) रक्षा मंत्रालय डी) मानव संसाधन मंत्रालय
ए) Law Ministry.
29. 1965 तक भारत संघ के आधिकारिक उद्देश्य के लिए राजभाषा और सहायक राजभाषा के रूप में कौनसी भाषाओं का उपयोग किया गया था? (ए)
Which was the main language and co-official language used for the Official Purpose of the Union of India upto 1965?
- ए) अंग्रेजी-मुख्य राजभाषा तथा हिंदी-सहायक राजभाषा
बी) हिंदी - मुख्य राजभाषा तथा अंग्रेजी सहायक राजभाषा
सी) अंग्रेजी-मुख्य राजभाषा तथा उर्दू-सहायक राजभाषा
डी) संस्कृत मुख्य राज भाषा तथा हिंदी-सहायक राजभाषा
ए) English was the main language and Hindi was the co-official language.
30. भाग-VI में कौन-सा अनुच्छेद है? (ए)
Which Article comes under Part-VI?
- उ: ए) अनुच्छेद 210 बी) अनुच्छेद 370 सी) अनुच्छेद 375 डी) अनुच्छेद 209
31. वर्ष 1973 में गठित प्रथम रेलवे हिंदी सलाहकार समिति की अध्यक्षता किसने की? (ए)
Who chaired the First Railway Hindi Salahkaar Samiti constituted in 1973?
- उ: ए) श्री ललितनारायण मिश्रा बी) श्री राजेन्द्र कुमार सी) श्री आर.के. नारायण डी) श्री अब्दुल कलाम
ए) Shri. Lalit Narayan Mishra.
32. वर्ष 1976 में गिठित संसदीय राजभाषा समिति के अध्यक्ष कौन थे? (ए)
Who was the Chairman of the Parliamentary Committee on Official Language constituted in the year 1976?
- ए) तत्कालीन गृह मंत्री श्री ओम मेहता बी) श्री ललितनारायण मिश्रा
सी) श्री राजेन्द्र कुमार डी) श्री आर.के. नारायण
ए) The then Home Minister Shri. Om Mehta.

33. संसदीय राजभाषा समिति की मौखिक समितिगरीता तैयार करती है? (ए)
Which Committee of the Committee of Parliament on Official Language prepares the draft?
ए) संसदीय राजभाषा समिति की आलेख एवं साक्ष्य उपसमिति
बी) संसदीय राजभाषा समिति
सी) मौखिक समिति
डी) नीति समिति
ए) Drafting & Evidence Sub-Committee of the Committee of Parliament on Official Language.
34. के आदेश के अनुपालन में रेलवे बोर्ड द्वारा हिंदी सहायक का पद मिला वर्ष बनाया गया था? (ए)
In which year the post of Hindi Assistant was created in Railway Board in compliance of President's Order?
ए) वर्ष 1952 में रेलवे बोर्ड की सामान्य शाखा द्वारा
बी) वर्ष 1965 में
सी) वर्ष 1976
डी) वर्ष 1956
ए) General Branch of Railway Board in the year 1952.
35. किस वर्ष में रेल बजटका हिंदी अनुवाद तैयार किया गया था और रेलमंत्री कौन थे? (ए)
In which year, the Hindi Translation of Railway Budget was prepared and who was the Railway Minister?
ए) वर्ष 1956, में स्वर्गीय श्री लालबहादुर शास्त्री
बी) वर्ष 1956, में स्वर्गीय श्री अब्दुल कलाम अज़ाद
सी) वर्ष 1956, श्रीमती सरोजिनी नायडु
डी) वर्ष 1956, ज्ञानी जैलसिंह
ए) In the year 1956, Late Shri. Lal Bahadur Shastri.
36. रेलवे बोर्ड में हिंदी (संसद) अनुभाग का गठन कब हुआ था? (ए)
In which year, Hindi (Parliament) Section was established in Railway Board?
उ: ए) वर्ष 1960 बी) वर्ष 1956 सी) वर्ष 1976 डी) वर्ष 1977
37. राजभाषा संबंधी संसद की समिति की कौन-सी उप-समिति रेलवे मंत्रालय का निरीक्षण करती है? (ए)
Which Sub-Committee of the Committee of Parliament on Official Language inspects Railway Ministry?
उ: ए) दूसरी उप समिति बी) पहली उप समिति सी) तीसरी उपसमिति डी) चौथी उप समिति

33. संसदीय राजभाषा समित्त की कौनसी समित्तिसौदा तैयार करती है? (ए)
Which Committee of the Committee of Parliament on Official Language prepares the draft?
ए) संसदीय राजभाषा समित्त की आलेख एवं साक्ष्य उपसमित्त
बी) संसदीय राजभाषा समित्त
सी) मसौदा समित्त
डी) नीति समित्त
ए) Drafting & Evidence Sub-Committee of the Committee of Parliament on Official Language.
34. के आदेश के अनुपालन में रेलवे बोर्ड द्वारा हिंदी सहायक का पद किस वर्ष बनाया गया था? (ए)
In which year the post of Hindi Assistant was created in Railway Board in compliance of President's Order?
ए) वर्ष 1952 में रेलवे बोर्ड की सामान्य शाखा द्वारा
बी) वर्ष 1965 में
सी) वर्ष 1976
डी) वर्ष 1956
ए) General Branch of Railway Board in the year 1952.
35. किस वर्ष में रेल बजटका हिंदी अनुवाद तैयार किया गया था और रेलमंत्री कौन थे? (ए)
In which year, the Hindi Translation of Railway Budget was prepared and who was the Railway Minister?
ए) वर्ष 1956, में स्वर्गीय श्री लालबहादुर शास्त्री
बी) वर्ष 1956, में स्वर्गीय श्री अब्दुल कलाम अज़ाद
सी) वर्ष 1956, श्रीमती सरोजिनी नायडु
डी) वर्ष 1956, ज्ञानी जैलसिंह
ए) In the year 1956, Late Shri. Lal Bahadur Shastri.
36. रेलवे बोर्ड में हिंदी (संसद) अनुभाग का गठन कब हुआ था? (ए)
In which year, Hindi (Parliament) Section was established in Railway Board?
उ: ए) वर्ष 1960 बी) वर्ष 1956 सी) वर्ष 1976 डी) वर्ष 1977
37. राजभाषा संबंधी संसद की समित्त की कौन-सी उप-समित्त रेलवे मंत्रालय का निरीक्षण करती है? (ए)
Which Sub-Committee of the Committee of Parliament on Official Language inspects Railway Ministry?
उ: ए) दूसरी उप समित्त बी) पहली उप समित्त सी) तीसरी उपसमित्त डी) चौथी उप समित्त

38. रेलवे बोर्ड द्वारा हिंदी में काम करने के लिए कौनसी योजना लागू की गई है?

What is the scheme implemented by Railway Board for doing work in Hindi ?

(ए)

उ: ए) राजभाषा व्यक्तिगत नकद पुरस्कार

बी) राजीव गांधी पुरस्कार

सी) राजभाषा शिल्ड

डी) गृहमंत्रालय व्यक्तिगत पदक

ए) Rajbhasha Individual Cash Award Scheme.

39. राजभाषा विभाग के राभाकास से क्या मतलब है?

(ए)

What is the expansion for OLIC used by Dept. of Official Language

ए) राजभाषा कार्यान्वयन समिति

बी) राजभाषा संसदीय समिति

सी) राजभाषा गृह मंत्रालय समिति

डी) राजभाषा नियम समिति

ए) Official Language Implementation Committee.

40. केंद्रीय सरकार के कर्मचारियों के लिए कितने हिंदी पाठ्यक्रम निर्धारित हैं?

How many Hindi courses are prescribed for Central Govt. employees?

(ए)

उ: ए) तीन बी) चार सी) पांच डी) छ

ए) Three.

41. केंद्रीय सरकार के कर्मचारियों के लिए निर्धारित प्रारंभिक हिंदी पाठ्यक्रम कौनसा है?

(ए)

Which is the elementary Hindi course prescribed for Central Govt. employees?

ए) प्रबोध

बी) प्रवीण

सी) पारंगत

डी) प्राथमिक

ए) Prabodh.

42. केंद्र हिंदी समिति के अध्यक्ष कौन हैं?

(ए)

Who is the Chairman of Central Hindi Committee?

ए) प्रधानमंत्री

बी) मुख्यमंत्री

सी) शिक्षा मंत्री

डी) राज्य मंत्री

ए) Prime Minister.

43. किसी विशेष मंत्रालय / विभाग में हिंदी के प्रचारप्रसार में हुई प्रगति की समीक्षा कौनसी समिति करती है?

(ए)

Which Committee reviews the progress made in the propagation of Hindi in particular Ministry/Department?

ए) हिंदी सलाहकार समिति

बी) हिंदी नियम समिति

सी) गृह मंत्रालय समिति

(डी) राजभाषा समिति

ए) Hindi Salahkar Samiti.

44. वर्तमान संसदीय राजभाषा समिति का गठन कब हुआ था? (ए)
When was the present Parliamentary Committee on Official Language constituted?
उ: ए)जनवरी 1976 बी)जनवरी 1956 सी)जनवरी 1977 डी)जनवरी 1982
ए) January 1976. (ए)
45. राजभाषा की संसदीय समिति के कितने सदस्य हैं? (ए)
How many members are there in the Parliamentary Committee on Official Language?
उ: ए)30 बी) 40 सी) 50 डी)70 (ए)
46. संसदीय राजभाषा समिति में लोकसभा के कितने सदस्य हैं? (ए)
How many Lok Sabha members are there in the Committee of Parliament on Official Language?
उ: ए)20 बी)31 सी)42 डी) 65. (ए)
47. फिलहाल राजभाषा की संसदीय समिति की कितनी उप-समितियां हैं? (ए)
At present, how many Sub-Committees are there in the Parliamentary Committee on Official Language ?
उ: ए)3 उप-समितियां बी) 2 उप समितियां सी) केवल 01 उप समिति डी)उक्त कोई नहीं
ए)3 Sub-Committees. (ए)
48. संसदीय राजभाषा समिति का मुख्य कर्तव्य क्या है? (ए)
What is the main duty of the Committee of Parliament on Official Language?
ए)हिंदी के प्रगामी उपयोग की समीक्षा करना बी) हिंदी के उपयोग को केवल केंद्र में लागू करना
(सी) हिंदी के उपयोग को कम करना डी) हिंदी के प्रगामी उपयोग का प्रचार करना
ए)To review the progressive use of Hindi. (ए)
49. प्रमुख शहरों में गठित टाउन राजभाषा कार्यान्वयन समिति के अध्यक्ष कौन हैं? (ए)
Who is the Chairman of the Town Official Language Implementation Committee constituted in major cities ?
ए) शहर के केंद्र सरकार के वरिष्ठ अधिकारी (बी)शहर के राज्य सरकार के वरिष्ठ अधिकारी
(सी) शहरके स्थानिक एमएलए (डी) शहरके स्थानिक एमपी
(ए)Senior most Central Government Officer of the city. (ए)
50. नगर राजभाषा कार्यान्वयन समिति की बैठक की आवधिकता क्या है? (ए)
What is the periodicity of the meeting of Town Official Language Implementation Committee?
ए) 3 महीने में एकबार बी) 2 महीने में एकबार
सी) 01 महीने में एकबार डी) 6 महीने में एकबार
ए)Once/ in 3 months. (ए)
51. राजभाषा का वार्षिक कार्यक्रम को कौन तैयार करता है? (ए)
Who prepares the Annual Programme on Official Language?
ए) गृह मंत्रालय बी) रेल मंत्रालय सी)संसदीय समिति डी)नगर राजभाषा समिति

प) Ministry of Home Affairs.

52. केंद्र सरकार के कर्मचारियों के लिए निर्धारित हिंदी पाठ्यक्रम क्या है? (ए)
What are the Hindi courses prescribed for Central Govt. Employees?
उ. ए) प्रबोध, प्रवीण और प्राज्ञा / Prabodh, Praveen & Pragya.
53. केंद्रीय सरकार के लिए कार्यालय कर्मचारियों के लिए निर्धारित अंतिम हिंदी पाठ्यक्रम कौन सा है? (ए)
Which is the final Hindi course prescribed for clerical cadre employees of Central Govt.?
ए) प्राज्ञा (Pragna) बी) पारंगत सी) प्रबोध डी) विशारद
54. एक केंद्रीय सरकार के कर्मचारी के लिए हिंदी पाठ्यक्रमों में प्रशिक्षित होने के लिए उपलब्ध प्रशिक्षण सुविधाएं क्या हैं? (ए)
What are the training facilities available to a Central Govt. employee to get trained in the Hindi courses?
ए) नियमित, गहन, पत्राचार और निजी पाठ्यक्रम बी) गहन पाठ्यक्रम सी) पत्राचार डी) नियमित
ए) Regular, Intensive, Correspondence and Private.
55. एक वर्ष में कितनी बार नियमित हिंदी परीक्षा आयोजित की जाती है? (ए)
How many times are the Regular Hindi examination conducted in a year?
ए) दो बार बी) तीन बार सी) चार बार डी) एक बार
ए) 2 Times.
56. नियमित हिंदी परीक्षाएं किन महीनों में आयोजित की जाती हैं? (ए)
In which months, Regular Hindi examinations are conducted?
ए) मई व नवंबर बी) जून व जुलाई सी) अगस्त व सितंबर डी) दिसंबर-अप्रैल
ए) May & November.
57. हिंदी पाठ्यक्रमों में प्रशिक्षित होने के लिए कौन पात्र हैं? (ए)
Who are eligible to be trained in the Hindi courses?
ए) केंद्र सरकार के तृतीय श्रेणी और उससे ऊपर के कर्मचारी
बी) केंद्र सरकार के द्वितीय श्रेणी और उससे ऊपर के कर्मचारी
सी) प्रथम श्रेणी के कर्मचारी
डी) कोई नहीं
ए) All the Central Govt. employees in Class III and above.
58. श्रेणी 'क' के तहत कौनसे कर्मचारी वर्गीकृत हैं? (ए)
Who are all the employees classified under Category 'A' ?
ए) वे कर्मचारी जिनकी मातृ भाषा हिंदी या हिंदुस्तानी या उनकी बोली है

वी) जिनकी मातृ भाषा बांग्ला है

सी) जिनकी मातृ भाषा गुजराती है

डी) जिनकी मातृ भाषा तमिल है

ए) Those employees whose mother tongue is Hindi or Hindustani or its dialect.

(ए)

59. 'कौनसे कर्मचारी 'ख' श्रेणी में आते हैं?

Who are all the employees classified under Category 'B' ?

ए) वे कर्मचारी जिनकी मातृ भाषा उर्दू, पंजाबी, काश्मीरी, पुश्तो, सिंधी या अन्य संबद्ध भाषाएँ हैं

बी) वे कर्मचारी जिनकी मातृ भाषा हिंदी या हिंदुस्तानी या इनकी बोली है

सी) जिनकी मातृ भाषा गुजराती है

डी) कोई नहीं

ए) Those employees whose mother tongue is Urdu, Punjabi, Kashmiri, Pushto, Sindhi or other allied languages.

(ए)

60. 'कौनसे कर्मचारी 'ग' श्रेणी में आते हैं?

Who are all the employees classified under Category 'C' ?

ए) जिनकी मातृभाषा मराठी, गुजराती, बंगाली, उडिया या असमिया है

बी) जिनकी मातृभाषा तेलुगु है

सी) जिनकी मातृभाषा कन्नड़ है

डी) उक्त कोई नहीं

ए) Those employees whose mother tongue is Marathi, Gujarati, Bengali, Oriya or Assamese.

(ए)

61. 'कौनसे कर्मचारी 'घ' श्रेणी में आते हैं?

Who are all the employees classified under Category 'D'?

ए) वे कर्मचारी जो दक्षिण भारतीय भाषाया अंग्रेजी बोलते हैं

बी) जो भारतीय भाषा बोलते हैं

सी) वे कर्मचारी जो हिंदी बोलते हैं

डी) उक्त कोई नहीं

ए) Those employees who speak a South Indian Language or English.

(ए)

62. श्रेणी 'सी' के कर्मचारी को किस पाठ्यक्रम से प्रशिक्षित होना आवश्यक है?

From which course a Category 'C' employee is required to be trained?

ए) प्रवीण

बी) पारंगत

सी) प्रबोध

डी) प्रज्ञा

ए) Praveen.

63. श्रेणी 'घ' के कर्मचारी को निरा पाठ्यक्रम से प्रशिक्षित होना आवश्यक है? (सी)
From which course a Category 'D' employee is required to be trained ?
ए) प्रवीण बी) पारंगत सी) प्रबोध डी) प्रज्ञा
सी) Prabodh.
64. प्रज्ञा को पास करने के लिए एक मुश्त पुरस्कार क्या है? (ए)
What is the lumpsum award for passing Pragna ?
ए) रु 2400/- बी) रु 2800/- सी) रु 3200/- डी) रु 4600/-
65. सामूहिक नकद पुरस्कार योजना के तहत प्रथम पुरस्कार के लिए नकद पुरस्कार राशि क्या है? (ए)
What is the Cash Award amount for the first prize under Collective Cash award Scheme?
ए) रु 1500/- बी) 2000 रुपए सी) 1000 रुपए डी) कोई नहीं
- सामूहिक नकद पुरस्कार योजना के तहत द्वितीय पुरस्कार के लिए नकद पुरस्कार राशि कितनी है? (ए)
What is the Cash Award amount for the second prize under Collective Cash award Scheme?
ए) रु.1200/- बी) रु.1500 सी) 1000 रु/- डी) 1600 रु/-
66. सामूहिक नकद पुरस्कार योजना के तहत तीसरे पुरस्कार के लिए नकद पुरस्कार राशि कितनी है? (ए)
What is the Cash Award amount for the third prize under Collective Cash award Scheme ?
ए) 800 रु बी) 1000/- रु सी) 1200/- रु डी) कोई नहीं
67. एक इकाई में 10,000 से अधिक शब्द लिखने के लिए एक वर्ष में कितने प्रथम पुरस्कार दिए जाते हैं? (ए)
How many first prizes are given in a year for writing more than 10,000 words in one unit?
ए) दो/Two बी) चार सी) पांच डी) कोई नहीं
68. एक इकाई में 10,000 से अधिक शब्द लिखने के लिए एक वर्ष में कितने द्वितीय पुरस्कार दिए जाते हैं? (ए)
How many second prizes are given in a year for writing more than 10,000 words in one unit?
ए) तीन/Three बी) चार सी) पांच डी) कोई नहीं
69. एक इकाई में 10,000 से अधिक शब्द लिखने के लिए एक वर्ष में कितने तृतीय पुरस्कार दिए जाते हैं? (ए)
How many third prizes are given in a year for writing more than 10,000 words in one unit?
ए) पांच/Five बी) चार सी) पांच डी) कोई नहीं
70. किस क्रम में नाम, पदनाम और साइन बोर्ड प्रदर्शित किए जाने हैं? (डी)
In which order Name, Designation and Sign Boards are to be exhibited?
ए) प्रादेशिक भाषा बी) हिंदी सी) अंग्रेजी डी) उक्त ए, बी, सी क्रम में

63. श्रेणी 'घ' के कर्मचारी को निम्न पाठ्यक्रम से प्रशिक्षित होना आवश्यक है? (सी)
From which course a Category 'D' employee is required to be trained?
ए) प्रवीण बी) पारंगत सी) प्रबोध डी) प्रज्ञा
सी) Prabodh.
64. प्रज्ञा को पास करने के लिए एक मुश्त पुरस्कार क्या है? (ए)
What is the lumpsum award for passing Pragya?
ए) रु 2400/- बी) रु 2800/- सी) रु 3200/- डी) रु 4600/-
65. सामूहिक नकद पुरस्कार योजना के तहत प्रथम पुरस्कार के लिए नकद पुरस्कार राशि क्या है? (ए)
What is the Cash Award amount for the first prize under Collective Cash award Scheme?
ए) रु 1500/- बी) 2000 रुपए सी) 1000 रुपए डी) कोई नहीं
- सामूहिक नकद पुरस्कार योजना के तहत द्वितीय पुरस्कार के लिए नकद पुरस्कार राशि कितनी है? (ए)
What is the Cash Award amount for the second prize under Collective Cash award Scheme?
ए) रु.1200/- बी) रु.1500 सी) 1000 रु/- डी) 1600 रु/-
66. सामूहिक नकद पुरस्कार योजना के तहत तीसरे पुरस्कार के लिए नकद पुरस्कार राशि कितनी है? (ए)
What is the Cash Award amount for the third prize under Collective Cash award Scheme?
ए) 800 रु बी) 1000/- रु सी) 1200/- रु डी) कोई नहीं
67. एक इकाई में 10,000 से अधिक शब्द लिखने के लिए एक वर्ष में कितने प्रथम पुरस्कार दिए जाते हैं? (ए)
How many first prizes are given in a year for writing more than 10,000 words in one unit?
ए) दो/Two बी) चार सी) पांच डी) कोई नहीं
68. एक इकाई में 10,000 से अधिक शब्द लिखने के लिए एक वर्ष में कितने द्वितीय पुरस्कार दिए जाते हैं? (ए)
How many second prizes are given in a year for writing more than 10,000 words in one unit?
ए) तीन/Three बी) चार सी) पांच डी) कोई नहीं
69. एक इकाई में 10,000 से अधिक शब्द लिखने के लिए एक वर्ष में कितने तृतीय पुरस्कार दिए जाते हैं? (ए)
How many third prizes are given in a year for writing more than 10,000 words in one unit?
ए) पांच/Five बी) चार सी) पांच डी) कोई नहीं
70. किस क्रम में नाम, पदनाम और साइन बोर्ड प्रदर्शित किए जाने हैं? (डी)
In which order Name, Designation and Sign Boards are to be exhibited?
ए) प्रादेशिक भाषा बी) हिंदी सी) अंग्रेजी डी) उक्त ए, बी, सी क्रम में

71. आम जनता द्वारा प्रयुक्त किए जाने वाले फार्मगिरा भाषा में तैयार किया जाना है (ए)
 ए) त्रिभाषी रूप (1. प्रदेशिक 2. हिंदी 3. अंग्रेजी (बी) केवल हिंदी सी) अंग्रेजी डी) प्रदेशिक
 ए) Trilingual form (1. Regional Language 2. Hindi 3. English).
72. रबर स्टैम्प किस क्रम में तैयार किए जाने हैं? (ए)
 In which order Rubber Stamps are to be prepared?
 ए) हिंदी-अंग्रेजी द्विभाषी-एक पंक्ति हिंदी और एक पंक्ति अंग्रेजी
 बी) दोनों पंक्तियां अंग्रेजी में
 सी) दोनों पंक्तियां हिंदी में
 डी) कोई नहीं
 ए) Hindi-English Bilingual from one line Hindi and one line English.
73. निजी अध्ययन द्वारा प्रबोध, प्रवीण और प्रज्ञा को उत्तीर्ण करने के लिए पुरस्कार की राशि कितनी है? (ए)
 Amount of lump sum award for passing Prabodh, Praveen and Pragya by private study.
 ए) प्रबोध/Prabodh रु 1600/- प्रवीण/Praveen रु 1500/- प्रज्ञा/Pragya रु 1200/- प्रत्येक के
 बी) प्रबोध/Prabodh रु 1200/- प्रवीण/Praveen रु 1300/- प्रज्ञा/Pragya रु 1100/- प्रत्येक के लिए
 सी) प्रबोध/Prabodh रु 800/- प्रवीण/Praveen रु 850/- प्रज्ञा/Pragya रु 600/- प्रत्येक के For each.
74. निजी अध्ययन द्वारा हिंदी टंकण परीक्षा उत्तीर्ण करने के लिए प्राप्त होनेवाली एक मुश्त पुरस्कार राशि क्या है? (ए)
 What is the lump sum award for passing Hindi Typewriting Examination by private study?
 ए) रु 1600/- बी) रु 1400/- सी) रु 1300/- डी) रु 1100/-
75. आठवीं अनुसूची में शामिल विदेशी भाषा क्या है? (ए)
 What is the Foreign Language included in the Eight Schedule?
 ए) नेपाली बी) बंगला सी) भोजपुरी डी) तुलु
 ए) Nepali.
76. कौनसा मंत्रालय/ कार्यालय केंद्रीय सरकार के कर्मचारियों के लिए परीक्षा का आयोजन करता है? (ए)
 Which Ministry /Office is conducting the exams. for the Central Govt. employees ?
 ए) गृह मंत्रालय के अधीन हिंदी शिक्षण योजना
 बी) रेल मंत्रालय के अधीन हिंदी शिक्षण योजना
 सी) शिक्षा मंत्रालय के अधीन हिंदी शिक्षण योजना डी) कोई नहीं
 ए) Hindi Teaching Scheme under Home Ministry.

77. एक गुप्त पुरस्कार के लिए कौन पात्र है/who is eligible for lump sum award?

(ए)

ए) वे कर्मचारी जो निजी प्रयासों से हिंदी की परीक्षा पास करते हैं

बी) वे कर्मचारी जो विभागीय प्रयासों से हिंदी की परीक्षा पास करते हैं

सी) केन्द्र सरकार के सभी कर्मचारी

डी) हिंदी परीक्षा पास करने वाले केन्द्र सरकार के सभी कर्मचारी

(ए) Those employees who pass the Hindi exams by private efforts.

78. स्टेशन की घोषणाएँ किस क्रम में की जाती हैं?

(ए)

In which order are the Station announcements made?

ए) त्रिभाषी (क्षेत्रीय, हिंदी और अंग्रेजी)

बी) द्विभाषी (हिंदी और अंग्रेजी)

सी) केवल हिंदी

डी) किसी भी भाषा में

(ए) Trilingual (Regional, Hindi & English)

79. रूफ बोर्ड को किस अनुपात में प्रदर्शित किया जाना है?

(ए)

In which proportion the Roof Board has to be displayed?

ए) समान अनुपात में-त्रिभाषी (क्षेत्रीय, हिंदी और अंग्रेजी)

बी) दो समान भागों में

सी) किसी भी अनुपात में

डी) केवल क्षेत्रीय भाषा में

(ए) In equal proportion-Trilingual (Regional, Hindi & English).

80. ट्रेन का पैनल बोर्ड किस प्रकार प्रदर्शित किया जाना है?

(ए)

How the Panel Board of a train has to be displayed?

ए) त्रिभाषी (क्षेत्रीय, हिंदी और अंग्रेजी) में

बी) द्विभाषी (क्षेत्रीय, हिंदी) में

सी) द्विभाषी (हिंदी और अंग्रेजी) में

डी) किसी भी भाषा में

(ए) In Trilingual (Regional, Hindi & English).

81. व्यक्तिगत वेतन के लिए कौन पात्र हैं?

(ए)

Who all are eligible for Personal Pay?

ए) केन्द्र सरकार के एचटीएस द्वारा आयोजित प्रज्ञा परीक्षाया निर्धारित परीक्षा उत्तीर्ण करने

पर, केन्द्र सरकार द्वारा कुछ श्रेणियों के लिए निर्दिष्ट % अंकों को प्राप्त करने पर

बी) प्रवीण परीक्षा पास करने पर

सी) पारंगत परीक्षा पास करने पर

डी) कोई नहीं

(ए) Passing Pragya Examination organized by the HTS of the Central Government or on passing the prescribed exam. Duly securing the specified % of marks for certain categories by the Central Government.

82. কেনद्र सरकार के अधिकारी/ कर्मचारी को हिंदी प्रशिक्षण क्यों दिया जाता है? (ए)
 Why training in Hindi is imparted to Central Government Officers/Employees?
 ए) ताकि हिंदी में अपना काम दिन बगल करें
 बी) ताकि उन के पैतन में वृद्धि हो
 सी) ताकि पदोन्नति मिले
 डी) कोई नहीं (ए)
83. हिंदी वार्तालाप पाठ्यक्रम की अवधि क्या है? / (ए)
 What is the duration for Hindi conversation course?
 ए) 30 घंटे बी) 20 घंटे सी) 40 घंटे डी) कोई नहीं
 ए) 30 Hrs. (ए)
84. हिंदी कार्यशाला में प्रशिक्षण लेने के लिए कौन पात्र है? (ए)
 Who are eligible to undergo training in Hindi Workshop
 ए) सभी ग्रुप-III और राजपत्रित कर्मचारी जिन्हें हिंदी का कार्य साधक ज्ञान/प्रवीणता प्राप्त है.
 बी) सभी केंद्र सरकार के कर्मचारी
 सी) केवल ग्रुप- सी वर्ग के कर्मचारी
 डी) केवल अधिकारी
85. एक आशुलिपिक, जिसकी मातृ भाषा हिंदी नहीं है, को हिंदी आशुलिपिक परीक्षा उत्तीर्ण करने पर व्यक्ति क (ए)
 वेतन कितना दिया जाता है?
 What is the Personal Pay given for passing Hindi Stenography, to a stenographer? Whose mother tongue is not Hindi ?
 ए) 12 महीने की अवधि के लिए 2 वेतन वृद्धियों के बराबर व्यक्तिगत वेतन
 बी) 1200/रु प्रति माह
 सी) दो वर्षों की अवधि के लिए 01 वेतन वृद्धि के बराबर
 डी) कोई नहीं
 ए) Personal Pay equivalent to 2 increment for a period of 12 months.
86. हिंदी टाइपिंग / स्टेनो द्वारा किया जानेवाले हिंदी टाइपिंग के कार्य की मात्रा हिंदी प्रोत्साहन भत्ता (ए)
 के लिए पात्र बनने के लिए क्या होनी चाहिए ?
 What is the quantum of Hindi Typing work to be done by typist/Steno to become eligible for Hindi incentive allowance?
 ए) हिंदी में प्रतिदिन 5 नोट या तिमाही में 300 नोट
 बी) हिंदी में प्रतिदिन 01 नोट या तिमाही में 100 नोट

- सी) हिंदी में प्रतिदिन 03 नोट या तिमाही में 200 नोट डी) कोई नहीं
 ए) 5 Notes in Hindi in a day or 300 notes in Hindi in a quarter.
87. 90% या उस से अधिक और 95% से कम अंक शिहत हिंदी टंकण पास करने पर मिलनेवाला नकद पुरस्कार क्या है?
 What is the amount of Cash Award for passing Hindi Typing with 90% or more but less than 95% marks ? (ए)
 ए) रु 400/- बी) 600 रु/- सी) 700/- रु डी) कोई नहीं
91. हिंदी आशुलिपि में 95% से अधिक अंक प्राप्त करने पर कितना नकद पुरस्कार मिलेगा
 What is the amount for passing Hindi Stenography with 95% or more marks? (ए)
 ए) रु 1200/- बी) 1500 रु/- सी) 1800/- रु डी) उक्त कोई नहीं
92. अंश का लिख हिंदी पुस्तक पालको दिया जानेवाला मानदेय क्या है?
 What is the honorarium amount given to Part-time Hindi Librarian? (ए)
 ए) रु 500/- प्रति माह बी) 1000/- रु प्रति माह सी) 200/- रु प्रतिमाह डी) कोई नहीं
93. हिंदी आशु लिपि परीक्षा पास करने पर मिलनेवाला एक मुश्त पुरस्कार कितना है?
 What is the lump sum award given for passing Hindi Stenography Examination? (ए)
 ए) हिंदी आशुलिपि रु 1500/- बी) हिंदी आशुलिपि रु 1100/- सी) हिंदी आशुलिपि रु 2000/- डी) कोई नहीं
 ए) Hindi Stenography Rs. 1500/-

THE END