

SYALLABUS FOR PRE-SELECTION 25% QSQ FROM GROUP “D” TO GROUP “C”
(PL GROUP) COURSE CONTENT

General knowledge on various departments in Railways, current affairs, Pass rule & leave rule.
Time & Distance, Profit/Loss, arithmetic, fundamentals of algebra and trigonometry.
Unit of current, voltage, power etc. Definitions of electrical quantities, Insulator, conductor, Resistance, Magnetism, Electromagnets, Self induction, Mutual induction, Generator Principle, Power calculations. Unit of Length, Weight and measures, Pressure, Temperature etc. Ohm's Law, other electricity rules, Series and parallel circuits, System voltages.
Rajbhasha
Chemical Reaction, Principle of working, Construction, methods of charging/discharging & Remedies, VRLA Battery, Defects, advantages of VRLA batteries over conventional lead acid batteries.
Generation, Transmission and distribution system with schematic diagram. D.C. Generator, D.C. Motors, Poly phase motor, single phase AC induction motors, Synchronous motor.
AC motors and starters, application of different type of motors, working principle of induction motors.
Construction, working principle, parts of transformers, parallel operation of transformers, CTs, PTs, protective device of transformer, lightening arrestor.
Substation, circuit breakers, relays, different meters, AB switches, fuses, earthing arrangement, type of earthing, earthing value in different places.
Overhead lines, SAG, ground clearance and spacing between two conductors as per IE rules, size of overhead conductor and accessories, type of cables, procedure of lying of cables.
Electrical accidents and preventive measures, first aid, shock treatment, electrical fire, use of fire extinguishers.
Different types of fittings, connection diagram, house wiring, type of wiring, testing of wiring.
Operation of DG set and working principle.
Various electrical pumps, operating, working principles & trouble shooting.
General information of AC & equipments split AC, window AC & central AC plant.
General information about lifts and Escalators, Maintenance practices, Safety precaution during operation.
Illumination of L.C. Gates, stations & FOB.

SYALLABUS FOR PRE-SELECTION 25% QSQ FROM GROUP "D" TO GROUP "C"
(TL GROUP) COURSE CONTENT

General knowledge on various departments in Railways, current affairs, Pass rule & leave rule.
Time & Distance, Profit/Loss, arithmetic, fundamentals of algebra and trigonometry.
Unit of current, voltage, power etc. Definitions of electrical quantities, Insulator, conductor, Resistance, Magnetism, Electromagnets, Self induction, Mutual induction, Generator Principle, Power calculations. Unit of Length, Weight and measures, Pressure, Temperature etc. Ohm's Law, other electricity rules, Series and parallel circuits, System voltages.
Rajbhasha
Chemical Reaction, Principle of working, Construction, methods of charging/discharging & Remedies, VRLA Battery, Defects, advantages of VRLA batteries over conventional lead acid batteries.
In TL system (LHB & non LHB), Generation system, various types of TL system, working principle of alternator, RRU/ERRU.
Matching of V-belts, tensioning arrangement, driving system, alignment of V-belt.
All light fittings and fans, checking of earth leakage & insulation resistance of coach wiring, passing train attention, emergency light and EL box, types of different fittings used in TL coaches.
EOG system, LHB variant EOG Non-AC/AC coaches, electrical features of LHB variant EOG Non-AC/AC coaches, electrical items fitted in various coaches, mini pantry equipments, HOG system etc.
Fire and preventive measures in power cars, pantry car, TL & AC coaches, safety items in TL coaches & power car, power and control circuit of TL coaches (LHB & Conventional).
General information about AC coaches, AC equipments of RMPU coaches, electrical fitting in AC coaches.
Illumination in train coaches & AC coaches.