

SYLLABUS FOR PROMOTION EXAM – JE (CARPENTER) PB-2 9300-34800 + 4200
CARRIAGE WORKSHOP JODHPUR

1. Supervisor – Duties, Qualification, Responsibilities, Required merits
2. Incentive Bonus Scheme
3. Wages
4. Job Evaluation
5. Time Study

MATHEMATICS

Arithmetic : Percentage, average, simple equation, ratio, Time and work, gain & loss, Interest
Algebra : Fundamentals of algebra, (Addition, Subtraction, Multiplication, Division) simple equations, Measurement
Mensuration : Area of square, rectangle, equilateral, triangle, isosceles triangle, right, Gain & Loss, Interest, Cutting, Turning, Drilling & boring calculation, Newton's Law of Motion
Decimal & Fraction : Power & root – Logarithms, Ration and Proportions, Geometry, Graphs, Trigonometry, Work, Power, Energy & efficiency, Strength of material, Centre of gravity, Density, special gravity, Friction

GENERAL KNOWLEDGE

Abbreviations, current affairs, day-to-day events, current sports, books, new adventure / inventions, etc. Flags, capital. Head of States and currencies of nations. Indian history. UNO and its organizations, Security Councils, General knowledge about railways.

ESTABLISHMENT RULES

Leave Rules, Pass Rules, Rly Service Conduct Rules 1966, D&A Rules 1968

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Trade – Carpenter

Energy – Kinetic energy, law of conservation of energy. Heat – Unity of heat, calorie, heat loss and gain. Fraction – Work – Unit of work in MKS system and SI. Difference between heat and energy. Difference between mass and weight. Heat treatment, Meaning of stress, strain – simple problems, Iron and non-iron metal, Definition and difference and characteristics Electricity – definition, use, atom, molecules and structure, current and its types, conductor, resistance, Ohm's law. Magnet and its characteristics	Importance of the carpentry trade in industry. Introduction of the safety rules in shop floor and to fire fighting equipments. Safety precautions to carpentry hand tools, workshop discipline and safety First-Aid etc. Introduction to carpentry hand tools, their classification, names and uses, measuring and marking, testing, tools, types, size, uses, etc. Saws and planes :- Description, types, size, setting, sharpening, uses, etc. Introduction to timber growth of a tree, Identification of timber. All type of hand tools. Frame joints : All type of joints. Adhesives, types, uses, etc Seasoning of timbers :- Advantages and disadvantages, chemical treatment of the timbers. Files :- Types, grades, uses, maintenance of hand tools. Nails and screw, types and uses Sand papers :- types and uses, grades, finish sizes and uses. Varnish :- Type and uses. Types of door, panels, window frames. Inspection of POH coaches. PVC and decolite in coaches
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