

SYLLABUS FOR PROMOTION EXAM – JE (MILLWRIGHT) 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

jkTkk'kk | Ecu/kh 10% izu

Trade – Millwright

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	Definition, Maintenance – Definition, break-down maintenance, preventive maintenance, routine maintenance. File and Filing, Marking, Limit, Fit and Tolerance, Interchangeability, Metallurgy, Engineering materials, Lifting trackless, Hoists & Cranes, Basic electricity technology, Pipes & pipe fittings, Lubricants & lubrication, cutting fluids and coolants. Study of laths MC, Forging – Heat treatment. Transmission Paxies, Mechanical handling & transportation of machines & equipment. CNC machines:- Introduction, Difference between NC CNC GPM. Advanced Hydraulics, Shaft & Couplings, Power transmission & drives, Advanced pneumatic, Pulley, Belt, Couplings, Key Gears. Levelling of M/C, Seats & Packings, Reconditioning, Compressors, Automobile.
---	---