

SYLLABUS FOR PROMOTION EXAM – JE (PAINTER & TRIMMER) 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 – Painter

<p>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</p>	<p>Safety precautions for the trade, Brief description of different types of hand tools and their functions, Painter hand tools, brushes of various sizes, diamond glazier, stopping knife, scrapers, plate knife, chisel knife, shave hook plumb line, lining tool, rule file etc – their description use case & maintenance. Blow lamp – its use care & maintenance, Peety - definition, types uses method of mixing & its different system of application. Varnish gold sizes, spur varnish synthetic varnish. Preparation of different types of varnishes, reaction varnish. Synthetic varnishes copeal varnish etc, pigment & extenders. Oil, drivers, resings, solvents & thinner – description of each of the item classification & use. Varnish method of preparation – different types classification of their application on woods. Corrosion – causes of corrosion, effect of atmosphere in different places. Corrosion on different metal both ferrous & non ferrous – factors controlling corrosion test atmosphere, water, soil etc protection against. Brushes, description, sizes & uses. Method of application, process for coating different metals, precautions, care and maintenance. Painters equipments ladder – step sealfolding trestle buckets etc. Their description & use. Corrosion effects & types methods to prevent corrosion, purpose of metal pre-treatment description of various method and field of application. Paint definition classification & uses. Method of selection, application, preparation techniques, mixing of ingredients, various types, their purpose and its effect on paints. Description of various spray painting plants & equipments, method of</p>
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	<p>construction their field of application, safety precautions, etc.</p> <p>Description of bonds for plastering walls techniques of constructing walls. Method of erecting scaffolding, purpose of cleaning wall surfaces & their effect & processes of cleaning different methods of cleaning its description. Precautions and uses.</p> <p>Dry distemper cement colour for floor, cement paint, time colour, colour making process for distemping & cement paints precautions and application processes.</p> <p>The methods in preparing surfaces for oil painting of wall various painting faults & their remedies. Painter's equipment classification, function & their uses, principles of spray gun painting.</p> <p>Method of stenciling, special types of stencils. Care of stencils. Drawing instruments uses in lettering. Conception of colour primary, secondary & tertiary. Definition of colour, terms such as tint, shade, hue, tone, monochromic, warm colours, glossary of terms for paints & enamels their nature constituents of paints & methods of manufacture. Types of paints as primer, surfaces under coats. Full gloss paint & enamels. Pigment, definition, types of pigments properties of pigments manufacturing process, their different types & uses.</p> <p>Description of silk screen painting preparation of surface prior to application of textures, various process of painting of silk screen.</p>
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Trade – Trimmer

<p>Energy – Kinetic energy, law of conservation of energy.</p> <p>Heat – Unity of heat, calorie, heat loss and gain.</p> <p>Fraction –</p> <p>Work – Unit of work in MKS system and SI.</p> <p>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</p> <p>Electricity – definition, use, atom, molecules and structure, current and its types, conductor, resistance, Ohm's law. Magnet and its characteristics</p>	<p>Safety rules, Kinds of Ragzins, Types of threads.</p> <p>AC-3 tier, AC-Z, ACC, measurements of different types of curtains.</p> <p>Measurement of sheets</p> <p>AC-3 tier, AC-Z, AC Chair – No of seats.</p> <p>Hand swing / inch, Number of Swing by machines.</p> <p>Kinds of nails</p> <p>Different types of needles</p> <p>Measurement of carpets for used in AC-1st etc</p> <p>Back stopper in AC.</p> <p>Different measurement in Chain covers and lock wires</p> <p>Repair and manufacturing of Fiber glass</p> <p>Manufacture and repairs of Vestibule</p>
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