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EAST COAST RAILWAY

Office of the
Principal Chief Personnel Officer
Bhubaneswar-751017.

No.ECoR/Pers/13/Selection/Syllabus/Engg/JE/TMO

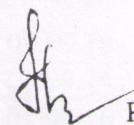
Dated: 17.05.2019

PCE/ECoR/BBS
CE/TM/BBS
DRM(P)-KUR,WAT,SBP

Sub: Syllabus for selection to the post of Junior Engineer(Track Machine) in level-6 in Pay Matrix.

Syllabus for selection to the post of Junior Engineer(Track Machine) in level-6 in Pay Matrix in selection would cover:

- 1) Arithmetic,Mensuration and Estimation: Calculation of area, volume of geometrical objects (including hollow objects such as pipes etc.Time and distances, speed calculations, work-time problems, Trigonometry, Basic theorms related to triangles.
- 2) Science, Physics and Chemistry,Principles of vernier,Micrometer and similar measuring instruments,density/specific gravity, Laws of simple pendulums, Newton's law, Laws of gases, Archimedes principles-heat-specific heat temperature scales, Elements-Mixtures-compounds-symbols and formulas-chemical equation,Balancing rules (Basic)-Metals/Non metals,Physical and chemical properties-Acids-bases properties.
- 3) English : Comprehension,letter writing, General Essay, Precis writing,Basic grammer-parts of speech,Correction of sentences,Active and passive voices-simple-complex-compound sentences.
- 4) Drawing : Ability to draw free hand sketches, Isomertric views with dimensions, study of machine drawing, symbols/Notations used in machine drawing.
- 5) General Workshop Practices : Knowledge in basic machine tools(Lathes,drilling machines, shaping, planning and miling) types of fits, tolerances-Heat treatment process,properties of steel, welding technology, basic, Repairs to components-corrosion and prevention.
- 6) Knowledge in the working principles of diesel/petrol engine their maintenance schedules,trouble shooting techniques.
- 7) Basic Knowledge in the hydraulic system,components-function-symbols-deffects.
- 8) Basic Knowledge in pneumatic system-components-types-maintenance-troubleshooting.



- 9) Basic Knowledge in electricity-Ohms law-Unit of electricity-generation of electricity, methods Generators/Motors-functions, Batteries-types- Maintenance, Different types of motors, lamps, cable etc.
- 10) Knowledge in the working of Railways -Track Machines-Types & their parts-functions etc.
- 11) General Knowledge and safety rules.
- 12) Knowledge of different Establishment Rules-HOER-DAR-Pass rules, Leave, WCA, etc.
- 13) Stores indenting accountal and condemnation, Return of Stores procedure.
- 14) Basics of electronics, Diodes, Amplifiers, Printed Circuits.
- 15) Official language policy and official languages rules.

The syllabus may be uniformly followed in all Divisions/Workshops Construction units of ECoR for all JE (Track Machine) selections with immediate effect. Wide circulation may be given to all offices. Whenever a selection is notified, copy of this syllabus will be annexed.

(H.K. Mahanand)

Senior Personnel Officer (I)
for Principal Chief Personnel Officer

Copy forwarded for information and necessary action to:-

- CAO(Con)/ECoR/BBS
- CWM/CRW/MCS
- Sr.DEN(Co-Ord)-KUR, SBP, WAT
- Dy.CE/TM/ECoR/BBS
- Dy.CPO/Con/BBS
- AEN/TM/BBS
- GS/ECoRSC, ECoRSU, AIOBCREA, AISCSTREA
- OS/Rulling/BBS

for Principal Chief Personnel Officer