JAMMU AND KASHMIR PUBLIC SERVICE COMMISSION
Solina, Srinagar – 190009

Subject: Syllabus for the Screening Test for the posts of Assistant Engineer Electrical and Mechanical.

Notice
Dated:-01.04.2017

Syllabus for the post of AE (Electric) in Power Development Department.

Primary and secondary cells, Dry accumulators, Solar Cells, Steady state analysis of d.c. and a.c. network, network theorems; network functions, Laplace techniques, transient repsonse; frequency response; three- phase networks; inductively coupled circuits.

Mathematical modelling of dynamic linear systems, transfer functions, block diagrams; stability of control systems.

Electrostatic and magnetostatic field analysis; Maxwell's equations. Wave equations and electromagnetic waves.

Basic methods of measurements, standards, error analysis; indicating instruments, cathode ray oscilloscope, measurement of voltage; current; power resistance, inductance, capacitance, frequency, time and flux, electronic meters.

Vaccum based and Semi conductor devices and analysis of electronic Circuits; single and multistage audio, and radio, small signal and large signal amplifiers: oscillators and feed back amplifiers; wave shaping circuits and time base generators: multi-vibrators and digital circuits; modulation and demodulation circuits, Transmission line at audio, radio and U.H. Frequencies; Wire and Radio communication.

Generation of e.m.f. and torque in rotation machine; motor and generator characteristics of d.c. synchronous and induction machines, equivalent circuits; commutation starters; phaser diagram, losses, regulation, power transformers.

Modelling of transmission lines, steady, state and transient stability, surge phenomena and insulation coordination; protective devices and schemes for power system equipment.

Conversion of a.c. to d.c. and d.c. to a.c. controlled and uncontrolled power, speed control techniques for drives.