



অসম লোকসেৱা আয়োগ

ASSAM PUBLIC SERVICE COMMISSION

Jawaharnagar, Khanapara, Guwahati-781022.

SYLLABUS

(Bachelor Degree Standard)

Name of post: *Electrical Inspector in the Inspectorate of Electricity under Power (Electricity) Department, Assam. (Advt. No. 14/2024 Dated. 21/06/2024)*

General Studies & Electrical Engineering (Multiple Choice Question Type)

Full Marks: 200 Marks (100 Questions)

Time: 2-00 hours

| PART – I (General Studies) | Marks |
|---|-------|
| G.K. & Current Affairs (Assam & India) | 60 |
| Reasoning and Analytical Ability | |
| PART – II (Electrical Engineering) | Marks |
| Primary and Secondary cell, Dry-accumulators, Solar Cells, Steady state analysis of D.C and A.C Network, Network Theorems, Network functions, Laplace techniques, transient response, frequency response, three-phase network, inductively couple circuits. Mathematical modelling of dynamic linear systems, transfer functions, block diagrams, stability of control systems. Electrostatic and magneto static field analysis, Maxwell's equations, Wave equations and electromagnetic waves. Basic methods of measurements, standard error analysis, indicating instruments, cathoderay oscilloscope, measurement of voltage, current, power resistance, inductance, capacitance, frequency, time and flux, electronic motors. Vacuum based and Semiconductor devices and analysis of electronic circuits, single and multistage audio and radio, small signal and large signal amplifiers, oscillators and feedback amplifiers, wave shaping circuits and time based generators, multivibrators 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 os 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. | 140 |

08/07/24
Controller of Examination,

Assam Public Service Commission,

Jawaharnagar, Khanapara, Guwahati-22