

Electrical Engg.Dept.

Syllabus for Entrance test

M. E. Electrical (Power System)

1 Measuring - Techniques- Electrical measuring techniques and bridges
Instrumentation systems Transducers, Accuracy, Instrumentation Amplifier

2. Power System Specialization –

- a) Power System Operation, Analysis and Stability -Symmetrical components, Fault analysis, Load flow studies, Active reactive power control stability.
- b) Switch gear and Protection - Principles of circuit breaking, circuit breakers protective relaying, protection of power system apparatus and installations Rating and testing of circuit breaker
- c) Brief introduction to use of computer methods for operation and control and simulation in power system

3 . Electrical Machines –

- a) Design of Electrical machines. Basic principles and design procedures.
- b) Performance and Analysis of all important machines. Applications
Introduction to linear and other special machines.
- c) Brief study of generalized machine, theory and use of computer for analysis.
- d) Various test on three phase and single phase transformer
- e) single phase induction motors; synchronous machines - performance, regulation and parallel operation of generators, motor starting, characteristics and applications; servo and stepper motors.

4. Microprocessors-8 bit processor 8085 Instruction set/Architecture interrupts, Interfacing techniques. Study of commonly used chips. Applications of microprocessor.

5. Power Electronics - Thyristor Rating, protection; characteristics, Triggering devices and circuits. Thyristor converters and inverters cyclo converters, Dual converters. Future trends.