

## **SYALLABI FOR TAMILNADU COMMON ENTRANCE TEST (TANCET)**

For Admission to M.E. / M.Tech. / M.Arch. / M.Plan. Degree Programmes

### **PART – II**

#### **BASIC ENGINEERING & SCIENCES (Common to all Candidates)**

**Applied Mechanics:** Law of Mechanics – Lamé's theorem – Forces, Moments and Couples – Displacement, velocity and Acceleration – Friction – Moment of Inertia.

**Mechanical Engineering:** Laws of thermodynamics – Open and closed systems – Equation of state – Heat and Work.

**Physics:** Sound – Lattices – Ultrasonic flaw detector – X-ray radiography – Interference Fringes – Planck's quantum theory – Laser and Fibre Optics.

**Material Science:** Fracture – Magnetic and Dielectric materials – Conductor and Semi conductor materials – Ceramic and Super conductor materials.

**Civil Engineering:** Fluid Statics and Dynamics – Boundary Layer – Pumps and Turbines – Environmental Pollution.

**Electrical Engineering:** Ohm's law – Kirchoff's law – A.C. circuits – D.C. machines – Transformers – Synchronous machines – Instrumentation.-

**Computers:** Computer organization – Architecture – Arrays – Pointers – User defined function – C program.

**Chemistry:** Adsorption – Chromatography – Chemical kinetics – Electrochemistry – Spectroscopy – Fuels and Combustion.