### RECRUITMENT CELL

## NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI – 620 015.

# Syllabus for the Skill and Main Tests for the post of Technical Assistant

## **Group III - Allied Sciences**

DEPT.	SYLLABUS
PHYSICS	Fire safety - Electrical safety- Electrical voltage and current-AC/DC - MCB/PCB- Circuit continuity Magnetic field- electromagnet-Ammeter-Voltmeter-Grating-LASER-Rheostat-Magnet-Wire thickness measurement- Prism-optical fiber-Spectrometer - Light sources - light to current conversion - Chemical safety
CHEMISTRY	Preparation of solutions, molarity, molality, normality, indicators used in acid- base titrations, buffer solutions, Determination of hardness (EDTA method) and dissolved oxygen (Wrinkler's method) in water sample, Estimation of Fe <sup>3+</sup> by spectrophotometer, Beer-Lambert's law, Conductometric titration (strong acid versus strong base), litmus paper, bleaching powder.