# Syllabus for AITLET

**Introduction:**

1. Student seeking admission to Direct Second Year (Lateral Entry) after Diploma has to appear for AITLET exam which consist of two Test Viz Test-1 and Test-2.
2. **Test 1** is common for all candidates.
3. **Test 2** is branch specific, for e.g. Electrical student who is seeking admission in Electronics and Telecommunication branch, he/she has to refer syllabus of E&TC Branch and if he/she is seeking admission to Computer or IT branch he/she has to refer the syllabus of Computer and IT Engineering.
4. Syllabus mentioned here is broad-based and framed based on syllabi of diploma courses of some states.

## TEST 1- Common test for all branches

**(Test to be given by all eligible students)**

**Mathematics**

Limits, derivatives, integration, complex numbers, formation of differential equations, solution of first order differential equations, probability, matrices, planes and lines.

**English**

Articles, preposition, pronoun, verb, adverb, clauses, adjective, tenses, conjunction, sentence construction, vocabulary, active passive voice, direct and indirect speech, English reading Skills

## TEST 2- Branch Specific Test

**(Test to be given by eligible students for specific branches mentioned below)**

**Mechanical Engineering**

Elements/Basics of Mechanical Engineering, Engineering/Applied Mechanics, Strength of Materials, Applied/Engineering Thermodynamics, Manufacturing Sciences, Production Engineering, Fluid Mechanics and Machinery, Material Science, Engineering Metallurgy, Machine Design, Machine Drawing

**Computer and IT Engineering**

Fundamentals of C language, Basics of C++, Digital Logic, Programming and Data Structures, Algorithms- searching and sorting, Graph search- minimum spanning trees, and shortest paths. Database management system, Software Engineering, Basics of Operating System, Computer Networks.

**Electronics and Telecommunication Engineering**

Basic Electronics, Basic electrical systems, Electronic devices and circuits, Digital electronics, network analysis, Measurement and instrumentation, microprocessor, Communication system , Programming language concept, electronic design, Integrated circuits