TRIZ PRACTITIONER CERTIFICATION

Recommendations for passing the test
- Applicants should have a sufficient command of science and mathematics
- Applicants should have good theoretical knowledge of all Examination Topics listed below.
- Having practical application of TRIZ methods will be advantageous.

Candidate should provide the following documents with the application:
- Copies of any documents showing attendance at TRIZ training
- Copies of any TRIZ related papers or projects
- Any letters of recommendation

Examination Topics

I. ANALYTICAL TRIZ TOOLS

Function Analysis
- Definition of function
- Function types: main, auxiliary
- Useful, harmful, adequate, inadequate (insufficient, excessive) functions
- Concept of ideality
- Ideal engineering system

Trimming
- Concept of trimming
- Rules of trimming (ideal ways, ideality tactics)

II. PROBLEM MODELING AND PROBLEM SOLVING

1. Modeling problems as engineering contradictions (technical contradictions, system conflicts)
   - Definition of an engineering contradiction
   - Typical engineering contradictions
   - 39 typical parameters
   - Altshuller’s (Contradiction) Matrix
   - 40 Inventive Principles

2. Modeling problems as physical contradictions
   - Definition of a physical contradiction
   - Methods of resolving physical contradictions

3. Modeling problems as substance-field (S-F) models
   - Concept of a S-F model
   - Types of S-F models:
     - Incomplete
     - Complete
     - Chain
     - Double
     - Complex
   - S-F analysis and the System of Standard Inventive Solutions
   - 5 classes of the System of Standard Inventive Solutions

4. Function modeling of problems

5. ARIZ (ARIZ-85-C and later versions).
III. LAWS OF ENGINEERING SYSTEM EVOLUTION

- Law of Increasing Ideality
- Law of Non-Uniform System Development
- Law of Transition to Supersystems
- Law of Increasing Dynamization
- Law of Transition to Microlevels
- Law of System Completeness
- Law of Increasing Coordination (Harmonization)
- Law of Shortening of Flow Paths
- Law of S-curve Evolution

Test Structure and Grading

- Open-book.

- A test contains 10 problems divided into 5 groups:
  - Function analysis
  - Resolving conflicts/contradictions
  - Sufield analysis
  - ARIZ
  - Laws/lines of evolution.

- If a candidate demonstrates a faultless TRIZ analysis (i.e., correctly applied TRIZ concepts, rules, and algorithms), but could not come up with a specific concept of solution for that problem, his/her work is graded 90%.

- Passing final grade – 75%. All tests will be graded by 5 members of the TRIZ Certification Board. All grades will then be averaged to obtain the final grade.

Test Administration

- Four times a year, at a designated location and dates as published on the AI website.
- Administered by a member of or by a person assigned by the Certification Board.
- Duration – up to 8 hours.

Test Results

- Test results will be available within fourteen business days (excluding holidays) after the test date.

Fee

- $400 USD. If you fail the exam and wish to retake the exam, a new fee will be required.

Recommended References


