

TRAINING FACILITIES AVAILABLE AT NTH(SR) , CHENNAI

(i) Chemical Laboratory

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| (a) Aim | : Testing of Paints & Related surface coatings (Theory & Practical) |
| Eligibility | B.Sc. (with Chemistry as one subject) |
| Duration | Five Days |
| Course fee No. of trainees | : RS.5000/- per Trainee 10 |

Course content:

Testing of Paints and related surface coatings according to Indian Standard test methods (IS: 1 01) with Practical demonstration and explaining the theory

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| (b) Aim | Chemical Analysis of Building materials - cements |
| Eligibility | B.Sc. (Chemistry) |
| Duration | Ten Days |
| Course fee No. of trainees | : Rs.8000/- per Trainee 5 |

Course content:

Testing of cements to Indian standard specification by classical methods (both demonstration and practical training) including theoretical explanation.

(ii) Civil Laboratory

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| Aim | : Training on exposure to cement testing (Theory & Practical) |
| Eligibility | Degree/Diploma in Civil/ Mechanical Engineering |
| Duration | Two Days |
| Course fee No. of trainees | RS.1000/- per Trainee 1 0 to 15 |

Course content:

Introduction - Importance of quality testing of building materials like cement, awareness of quality testing - Testing of different types of cement; its usage and its testing on physical properties as per relevant IS specification;

Methods of Physical tests for Hydraulic Cement as per IS: 4031-1988, for the following physical parameters: Determination of consistency of standard cement paste, setting time; fineness, soundness, compressive strength, drying shrinkage etc.

(iii) Electrical Laboratory:

Aim : (i) Training on testing of cables and conductors
(ii) Dielectric properties of solid & liquid insulating materials
(iii) Testing of Household Appliances & Heating Appliances (All Theory & Practical)

Eligibility : Technical personnel from Industry and also for Engineering Students

Duration : One or two days according to the need of the industry

Course fee No. of trainees : Rs.1000/- per trainee per day
10 to 15

Course Content:

- (i) Type and Acceptance tests of cables - Construction - Properties of Conductor - Properties of Insulation & Sheath - High Voltage Test - Flammability test
Specifications: As per IS: 694, 2465, 1554, 7098, 398 etc.
- (ii) Dielectric strength - Breakdown test - Dielectric Constant - Dissipation factor Surface & Volume Resistivity - Dielectric properties at various temperature and humidity conditions - Specification: As per IS: 2584,335 and ASTM D - 149
- (iii) Safety requirements of various household appliances as per IS:302 performance - Endurance - Protection against Electrical shock - Leakage Current.
Appliances: Mixer grinder, Oven (Heating & Baking), Fan, Iron box, Immersion Heaters, Geyser, Toaster.

(iv) (a) N D T Laboratory - Metallurgy

Aim : Training on Metallography Analysis of Metals and Alloys
(Theory & Practical)

Eligibility : Degree/Diploma in Mechanical/Metallurgical Engineering

Duration : Two days

Course fee No. of trainees : Rs. 1 000/- per Trainee
10 to 15

Course content:

Understanding of Iron-Iron carbide diagram, Heat Treatment of Metals and alloys, Effect of C, Si, Mn, S & P on steels and cast irons, Microscopic study for structural characteristics of various steels and cast irons, Metallographic examination for Grain size, case depth, decarburisation, Anodic coating & other electrodeposited coatings.

Sample preparation - Types of etching agents and its effects on metals - Macro etching & its examination etc..

(b) N D T Laboratory - Non-destructive testing

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| Aim | : Training on Non-destructive testing methods (Theory / Practical) |
| Eligibility | Degree/Diploma in Engineering & M.Sc., in Physics |
| Duration | One day (Practical only) or Three days (Theory & Practicals) |
| Course fee | For one day: Rs.500/- per trainee |
| No. of trainees | For Three days: Rs.1000/- per Trainee |
| | 10 to 15 |

Course content:

- ~ Principles of radiography testing - Radiographic examination with x-rays on welded joints of plates, tubes and pipes - Types of radiographic Films - Film processing techniques.
- ~ Interpretation of radiographs for various defects like Lack of fusion, slag inclusions, Porosity, Undercuts, cracks, shrinkages etc. ~ Characteristics of Ultrasonic waves, ~ Types of Ultrasonic waves - Piezo electric effect - Types of transducers
Contact and Immersion techniques Contd..2..
- ~
- ~ Calibration blocks and its uses
- ~ Testing of welds, plates, pipes, castings & Forgings etc
- ~ Principles of Magnetic particle Inspection
- ~ Different methods of Magnetization techniques and its advantages and disadvantages etc
- ~ Principles of Dye penetrant inspections - advantages and disadvantages of inspection

SPONSORSHIP :

We sponsor the following candidate(s) for training.

We also agree to reimburse the loss if any to N. T. H. due to negligence of our candidate(s) during the practical training

1.

2.

3.

(Signature of the Sponsoring Authority)

Cheque/Demand Draft No. for Rs.

(Rupees in words)

Date :

Drawn on (Name of the Bank) in favour of the Director,
National
Test House, is enclosed.

COURSE CODE :

T :

**NATIONAL TEST HOUSE
TRAINING PROGRAMME
APPLICATION FORM**

NAME :

AGE :

QUALIFICATION :

PROFESSIONAL QUALIFICATION :

DESIGNATION :

ADDRESS FOR CORRESPONDENCE :

TELEPHONE NO. :

FAX NO. :

DATE :

(SIGNATURE OF APPLICANT)