

Syllabus for the subject

of

WORKSHOP CALCULATION & SCIENCE

(For 3rd & 4th semester)

Under

CRAFTSMEN TRAINING SCHEME (CTS)

(For Painter General)

Re-Designed

in

- 2015 –

By

Government of India

Ministry of Skill Development & Entrepreneurship

Directorate General of Training

CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE

Block - EN - 81 SECTOR - V, SALT LAKE CITY, KOLKATA - 700 091

3rd semester
Workshop Calculation and Science
For the Trade of Painter General

Calculation			Science		
Sl. No.	Description	Hrs.	Sl. No.	Description	Hrs.
1	Standard algebraic formulas: $(a+b)^2$, $(a-b)^2$, (a^2-b^2) and applied problems.	22	1	Definition of speed, velocity & acceleration and their units. Difference between speed & velocity. Simple problems.	22
2	Simple and compound interest and its related calculation.		2	Definition of work, Power & energy – their units. Calculations of work, Power & energy.	
3	Square Root: Square and square root, method of finding out square roots. Simple problem using calculation.		3	Friction – Definitions, its effect, types. Laws of friction, angle of friction and its related calculations.	

4th semester Workshop Calculation and Science
Painter General

Calculation			Science		
Sl. No.	Description	Hrs.	Sl. No.	Description	Hrs.
1	<u>Fraction:</u> Fraction, Decimal fraction, LCM, HCF, multiplication and division of fraction. Conversion of decimals into fraction and vice versa.	22	1	Definition of specific gravity, density and relative density. Calculation of density of a body.	22
2	Calculate the surface area of chair, table, windows, doors, walls, floors for painting. Calculate the area of different shape of regular and irregular object. Calculate the cost of painting material cost and labour cost.		2	Basic theory of varnish & Paints, its types, chemical constituent. Care (Health hazards) & Safety precaution to use of varnish and paint. Storing process of varnish, paints & its fire prevention.	
3	Preparation of simple estimation:- Estimation of labour charges for various painting jobs		3	Corrosion: What is corrosion. Difference between corrosion and rancidity. Precaution to avoid corrosion. Electroplating process.	