



GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT & ENTREPRENEURSHIP
DIRECTORATE GENERAL OF TRAINING

COMPETENCY BASED CURRICULUM

FITTER

(Duration: Two Years)
Revised in July 2022

CRAFTSMEN TRAINING SCHEME (CTS) NSQF LEVEL- 4



SECTOR – CAPITAL GOODS AND MANUFACTURING



Directorate General of Training

FITTER

(Engineering Trade)

(Revised in July 2022)

Version: 2.0

CRAFTSMEN TRAINING SCHEME (CTS)

NSQF LEVEL - 4

Developed By

Ministry of Skill Development and Entrepreneurship
Directorate General of Training
CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE
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Professional Knowledge WCS- 38 Hrs.	Demonstrate basic mathematical concept and principles to perform practical operations. Understand and explain basic science in the field of study.	<u>WORKSHOP CALCULATION & SCIENCE:</u> Unit, Fractions Classification of unit system Fundamental and Derived units F.P.S, C.G.S, M.K.S and SI units Measurement units and conversion Factors, HCF, LCM and problems Fractions - Addition, subtraction, multiplication & division Decimal fractions - Addition, subtraction, multiplication & division Solving problems by using calculator Square root, Ratio and Proportions, Percentage Square and square root Simple problems using calculator Applications of Pythagoras theorem and related problems Ratio and proportion Ratio and proportion - Direct and indirect proportions Percentage Percentage - Changing percentage to decimal and fraction Mass, Weight, Volume and Density Mass, volume, density, weight and specific gravity Related problems for mass, volume, density, weight and specific gravity Speed and Velocity, Work, Power and Energy Work, power, energy, HP, IHP, BHP and efficiency Heat & Temperature and Pressure Concept of heat and temperature, effects of heat, difference between heat and temperature, boiling point & melting point of different metals and non-metals Concept of pressure - Units of pressure, atmospheric pressure, absolute pressure, gauge pressure and gauges used for measuring pressure Basic Electricity Introduction and uses of electricity, molecule, atom, how electricity is produced, electric current AC, DC their comparison, voltage, resistance and their units Mensuration Area and perimeter of square, rectangle and parallelogram Area and perimeter of Triangles Area and perimeter of circle, semi-circle, circular ring, sector of circle, hexagon and ellipse Surface area and volume of solids - cube, cuboid, cylinder, sphere and hollow cylinder Finding the lateral surface area, total surface area and capacity in litres of hexagonal, conical and cylindrical shaped vessels
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		Levers and Simple machines Simple machines - Effort and load, mechanical advantage, velocity ratio, efficiency of machine, relationship between efficiency, velocity ratio and mechanical advantage Trigonometry Measurement of angles Trigonometrical ratios Trigonometrical tables
In-plant training / Project work		