

**DETAILED SYLLABUS FOR THE POST OF DRAUGHTSMAN IN
TRAVANCORE COCHIN CHEMICALS LIMITED (Cat No.142/2021)**

Module No	Module topics	Marks
1	<p>Projection: Isometric projection, Oblique projection, Perspective projection, Orthographic views Projection of point, line, plain figures, solids, sectional views, Free hand sketching, Development of surfaces and solids, Intersection of solids</p> <hr/> <p>Workshop Calculation and Science: Metals, Properties of Engineering Materials</p> <hr/> <p>Employability Skill: English Literacy</p>	12
2	<p>Fasteners, Trade theory of Fitting shop, Turning shop, Welding shop, Machinist Trade, Sheet metal shop, Foundry, and Electrician and Electricity Related Calculation, Ic and Ec Engines and Engine related theory, Mass Production, Interchangeability, Tolerance and allowance, limits and fits, Production drawing, Name plate and bill of materials, Jigs and Fixtures</p> <hr/> <p>Workshop Calculation and Science: Mass, Volume, Weight and Density</p> <hr/> <p>Employability Skill: Communication Skills</p>	14
3	<p>Keys, Shafts, Couplings, Bearings, Gear and Gear Drive, Pulleys, Belt drive, Rope Drive, Chain drive</p>	11

	Workshop Calculation and Science: Work, Power, Energy, Heat and Temperature	
	Employability Skill: IT Literacy	
4	Computer Basics, AutoCAD 2D Basics, 2D commands and related features, 3D basics, 3D commands and related features, Assembly and Detail Drawings in 2D and 3D, Printing, File Preparation, External References, Symbols used for: pipe drawings, welded and riveted joint drawings, hydraulics pneumatic drawings, screwed joint drawings, tolerances allowances in drawings	18
	Assembly and detailed drawing, Part Drawing, Production Drawing on CAD 2D	
5	Solidworks/AutoCAD Inventor or 3D Modeling : Sketching features-Constraints and creatives	5
6	Pipe fittings and Valves, Cams and Followers,Pumps, Boilers, Boiler Mountings and Accessories, Hydraulic, Pressure vessels, Pneumatics and Related Equipments, Drawing related these topics in Cad 2D and 3D	10
7	Press and Press tools and related theories	11
	Workshop Calculation and Science: Mensuration, Levers and Simple Machines, Trigonometry	
	Employability Skill: Entrepreneurship Skills, Essential Skills for success	
8	Measuring tools,Gauges and Inspection tools, Precision Measuring tools	
	Workshop Calculation and Science: Friction, Centre of Gravity, Area of Cut,Algebra, Elasticity, Heat treatment	12

	Employability Skill: Maintaining Efficiency at Workplace, Labour Welfare Legislation	
9	Lay out of Machine foundations. Process path: Brief treatment of the principle, Involved and the precautions to be observed. Consideration of ergonomics (human factor) for shop layout.	7
	Workshop Calculation and Science: Profit and Loss, Estimate and Costing	
	Employability Skill: Quality Management, Preparation to the World of Work, Customer Interaction/ Service	

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper