

Revised Engineering Drawing (ED) syllabus  
of 40 hrs. from 80 hrs. duration for 75 trades in 29  
groups  
under Craftsmen Training Scheme (CTS)  
applicable from 2021-22 session.

Please note that free hand Engineering Drawing will be assessed as part of Formative assessment while, a few MCQ question on ED will be part of Trade Theory Computer Based Test (CBT).

Also note that for Draughtsman groups of trade, ED will be part of trade practical exam. Changes in their syllabus, if any, will be communicated Separately.

## Revised Engineering Drawing (ED) curriculum for 1-year engineering group of trades offered under Craftsmen Training Scheme

### Group 18 - Engineering Drawing

**CTS Trades Covered:** Fitter, Turner, Machinist, Machinist Grinder, Mechanic Machine Tool Maintenance, Operator Advance Machine Tool, TDM (D&M), TDM (J&F), Mechanic Mining Machinery, Technician Mechatronics, Textile Mechatronics, Basic Designer & Virtual Verifier, Advanced CNC machining, Aeronautical Structure & Equipment Fitter

1 <sup>st</sup> -Year		
Sl. No.	Topic	Time in hrs.
1.	Introduction to Engineering Drawing and Drawing Instruments – <ul style="list-style-type: none"> <li>• Conventions</li> <li>• Sizes and layout of drawing sheets</li> <li>• Title Block, its position and content</li> <li>• Drawing Instrument</li> </ul>	2
2.	Lines- Types and applications in drawing Free hand drawing of – <ul style="list-style-type: none"> <li>• Geometrical figures and blocks with dimension</li> <li>• Transferring measurement from the given object to the free hand sketches.</li> <li>• Free hand drawing of hand tools and measuring tools.</li> </ul>	6
3.	Drawing of Geometrical figures: <ul style="list-style-type: none"> <li>• Angle, Triangle, Circle, Rectangle, Square, Parallelogram.</li> <li>• Lettering &amp; Numbering – Single Stroke.</li> </ul>	4
4.	Dimensioning <ul style="list-style-type: none"> <li>• Types of arrowhead</li> <li>• Leader line with text</li> <li>• Position of dimensioning (Unidirectional, Aligned)</li> </ul>	2
5.	Symbolic representation – <ul style="list-style-type: none"> <li>• Different symbols used in the related trades.</li> </ul>	4
6.	Concept and reading of Drawing in <ul style="list-style-type: none"> <li>• Concept of axes plane and quadrant</li> <li>• Concept of Orthographic and Isometric projections</li> <li>• Method of first angle and third angle projections (definition and difference)</li> </ul>	14
7.	Reading of Job drawing of related trades.	8
<b>Total</b>		<b>40</b>

<b>2<sup>nd</sup> -Year</b>		
<b>Sl. No.</b>	<b>Topic</b>	<b>Time in hrs.</b>
1.	Reading of drawing of nuts, bolt, screw thread, different types of locking devices e.g., Double nut, Castle nut, Pin, etc.	6
2.	Reading of foundation drawing	6
3.	Reading of Rivets and rivetted joints, welded joints	6
4.	Reading of drawing of pipes and pipe joints	6
5.	Reading of Job Drawing ,Sectional View & Assembly view	16
<b>Total</b>		<b>40</b>