

Syllabus for the subject

of

# **ENGINEERING DRAWING**

(For 3rd & 4th semester)

Under

**CRAFTSMEN TRAINING SCHEME (CTS)**

For the trades of

**Under Group - A**

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

**Grouping of Engineering Drawing as per sector under CTS:**

Group	Sector	Name of Trade	Engg. Drg Code No. ED-3 <sup>rd</sup> sem- Gr. A	Engg.Drg Code No. ED- 4 <sup>th</sup> sem –Gr. A	WSC Code No. WSC- 3 <sup>rd</sup> Sem-Gr. A	WSC Code No. WSC- 4 <sup>th</sup> Sem-Gr. A
<b>A</b>	<b>Production &amp; Manufacturing</b>	Turner	✓	✓	✓	✓
		Fitter	✓	✓	✓	✓
		Machinist	✓	✓	✓	✓
		Machinist Grinder	✓	✓	✓	✓
		Tool & Die Making (Dies & Moulds)	✓	✓	✓	✓
		Tool & Die Making (Press Tools,Jigs & Fixture)	✓	✓	✓	✓
		Refractory Technicians	✓	✓	✓	✓
		Operator Adv. Machine Tools	✓	✓	✓	✓
		Mechanic Machine Tool Maintenance	✓	✓	✓	✓
		Draftsman Mechanical	X	X	✓	✓
	<b>Automobile</b>	Mechanic Motor Vehicle	✓	✓	✓	✓
		Mechanic Agriculture Machinery	✓	✓	✓	✓
	<b>Construction</b>	Mechanic Refrigerator & Air conditioner	✓	✓	✓	✓
		Draftsman (Civil)	X	X	✓	✓

**SYLLABUS FOR ENGINEERING DRAWING**  
**Code No. ED- 3<sup>rd</sup> Sem-Gr.A**  
**CTS-SEMESTER-III**

<b>Topic No</b>	<b>Engineering Drawing</b>	<b>Duration</b>
1.	- Revision of first year topics.	63
2.	- Machined components; concept of fillet & chamfer; surface finish symbols.	
3.	- Screw thread, their standard forms as per BIS, external and internal thread, conventions on the features for drawing as per BIS.	
4.	- Free hand Sketches for bolts, nuts, screws and other screwed members.	
5.	- Free hand Sketching of foundation bolts and types of washers.	
6.	- Standard rivet forms as per BIS (Six types).	
7.	- Riveted joints-Butt & Lap (Drawing one for each type).	
8.	- Orthogonal views of keys of different types	
9.	- Free hand Sketches for simple pipe, unions with simple pipe line drawings.	
10.	- Concept of preparation of assembly drawing and detailing. Preparation of simple assemblies & their details of trade related tools/job/exercises with the dimensions from the given sample or models.	
11.	-Free hand sketch of trade related components / parts (viz., single tool post for the lathe, etc.)	
12.	- Study of assembled views of Vee-blocks with clamps.	
13.	- Study of assembled views of shaft and pulley.	
14.	- Study of assembled views of bush bearing.	
15.	- Study of assembled views of a simple coupling.	
16.	- Free hand Sketching of different gear wheels and nomenclature.	
17.	<b>Revision</b>	
18.	Examination	

**SYLLABUS FOR ENGINEERING DRAWING**  
**Code No. ED- 4<sup>th</sup>Sem-Gr. A**  
**CTS-SEMESTER-IV**

Topic No	Engineering Drawing	Duration
1.	- Free hand Details and assembly of simple bench vice.	63
2.	- Reading of drawing. Simple exercises related to missing lines, dimensions. How to make queries.	
3.	- Simple exercises relating missing symbols. - Missing views	
4.	- Simple exercises related to missing section.	
5.	-Free hand sketching of different types of bearings and its conventional representation.	
6.	- Free hand sketching of different gear wheels and nomenclature/ Simple duct (for RAC). Free hand sketch of Reciprocating compressor – open type (for RAC)	
7.	- Solution of NCVT test. - Simple exercises related to trade related symbols. - Basic electrical and electronic symbols	
8.	- Study of drawing & Estimation of materials.	
9.	- Solution of NCVT test papers.	
10.	<b>Revision</b>	
11.	Examination	