

Syllabus for the subject

of

# **ENGINEERING DRAWING**

(For 3rd & 4th semester)

Under

**CRAFTSMEN TRAINING SCHEME (CTS)**

(For Mechanic Mining Machinery)

Re-Designed

in

2015

By

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Ministry of Skill Development & Entrepreneurship

Directorate General of Training

CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE

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**SYLLABUS OF ENGINEERING DRAWING FOR 3<sup>rd</sup> SEMESTER**  
**For the trade of Mechanic Mining Machinery**

Sl. No.	Engineering Drawing	Hrs.
1	Drawing of hydraulic and pneumatic symbols; Energy flow diagram, Freehand sketch of hydraulic fittings, oil seals, filters, hydraulic accessories.	63
2	Free hand sketching of the air line components and pipe fittings.	
3	Drawing of construction of over head line conductors.	
4	Free hand Sketch of hydraulic circuit diagram, line diagram of power transmission system, air flow diagram.	
5	Drawing of Oil Circuit breakers (OCB), Air circuit breakers (ACB)	
6	Drawing of Low oil or minimum oil circuit-breakers (MOCB) and Vacuum circuit breakers (VCB)	
7	Drawing of circuit diagrams of Firing circuits of SCR, Single phase half controlled rectifier, Single phase fully controlled rectifier, D.C. Chopper	
8	Concept of preparation of assembly drawing and detailing. Preparation of Simple assemblies & their details of trade related components with the dimensions from the given samples or models.	
9	Free hand sketch of trade related components / parts (viz., Electrical Circuit Diagrams. etc.)	
10	Revision	
11	Examination	

**SYLLABUS OF ENGINEERING DRAWING FOR 4<sup>th</sup> SEMESTER**  
**For the trade of Mechanic Mining Machinery**

<b>Sl. No.</b>	<b>Engineering Drawing</b>	<b>Hrs.</b>
1	Free hand sketches for simple pipe unions with simple pipe line drawings.	63
2	Freehand sketch of machine and its different sub-systems  Exploded view of the critical components of Scraper loader.	
3	Freehand sketch of conveyors, crushers and screen.	
4	Drawing of LT control panel for distribution of power to domestic loads	
5	Freehand sketch of the circuits of HEMM with electrical symbols	
6	Freehand sketch of lubricating systems used in HEMM	
7	Drawing of various type lightning arrestors & its connection	
8	Drawing of electrical layout of dragline electrical system	
9	Freehand sketch of the machines used in underground coal and metal mines	
10	Revision	
11	Examination	