

DISPLINE- METALLURGY

Name of the teacher- Sadashiba Patra

Semester-5th -Session-2022-23

From-15/09/2022 to 22/12/2022

Subject-Theory-5(Non-Ferrous Metallurgy)

Wk no	Day	Subject to be convert	Remark
WK-1 15/09to 17/09/2022	Day-1 15/09/2022	Introduction to non-ferrous metals.	
WK-2 19/09 to 24/09/2022	Day-1 19/9/2022	Non-Ferrous ore reserves of India & Non-Ferrous Industries in India	
	Day-2 20/9/2022	As above	
	Day-3 21/9/2022	Extraction of Aluminum. (Minerals of aluminum properties & uses of aluminum. Review of Aluminum deposits in India & Aluminum industries in India	
	Day-4 22/9/2022	2.1.1 Bayer's Process of Aluminum production.	
WK-3 26/9/2022 to 01/10/2022	Day-1 26/9/2022	2.1.2 Fused salt electrolysis of Alumina by Hall-Heroult process. Anode effect.	
	Day-2 27/9/2022	2.1.3 Methods of refining Aluminum. (Toth Process, Three layer process.)	
	Day-3 28/9/2022	Review of chapter-1 & chapter-2 and class test.	
	Day-4 29/9/2022	Newer Routes of Al. Production and it's feasibility.	
WK-4 02/10/2022 to 08/10/2022		PUJA VACATION	
WK-5 10/10/2022 to 15/10/2022	Day-1 10/10/2022	Minerals, Properties and uses of Tin, deposits review.	
	Day-2 11/10/2022	Concentration of Tin	
	Day-3 12/10/2022	Smelting for tin Extraction	
	Day-4 13/10/2022	Refining of Tin	
WK-5 17/10/2022 To 22/10/2022	Day-1 17/10/2022	Class test for chapter (2.0) (Extraction of metals from oxide minerals)	
	Day-2 18/10/2022	Briefing about metals extracted from sulphurate ores Minerals, Properties, uses & deposits of copper	
	Day-3	Concentration & Roasting of copper	

	Day-4	Matte smelting of copper ore	
WK-6 23/10/2022 to 29/10/2022	Day-1 25/10/2022	Converting of Matte	
	Day-2 26/10/2022	Refining of copper (Fire Refining & Electrolysis refining)	
	Day-3 27/10/2022	Minerals, properties used & deposits of leact.	
WK-7 31/10/2022 to 05/11/2022	Day-1 31/10/2022	Roasting & Sintering of lead ore.	
	Day-2 01/11/2022	Blast F/C smelting of Pb cone.	
	Day-3 02/11/2022	Refining of base bullion in detail & Review of Cu & Pb. Extraction.	
	Day-4 03/11/2022	Minerals, Properties, uses & deposits of Zn.	
WK-8 07/11/2022 to 12/11/2022	Day-1 07/11/2022	Roasting of Zn concentrate Extraction of Zinc by vertical Retort process	
	Day-2 09/11/2022	Horizontal retort process of Zn Extraction & refining of Zn.	
	Day-3 10/11/2022	Hydrometallurgy of Zn. Leaching & Preparation of Zn base solution Electrolysis of Zn solution.	
WK-9 14/11/2022 to 19/11/2022	Day-1 14/11/2022	Minerals , properties uses and deposits of Nickel	
	Day-2 15/11/2022	Roasting of Nickel ore smelting of Nickel ore.	
	Day-3 16/11/2022	Refining of Nickel and Review of Nickel extraction.	
	Day-4 17/11/2022	Class test for chapter 3.0) Extraction of metals	
WK-10 21/11/2022 to 26/11/2022	Day-1 21/11/2022	Introduction to metals extracted from Minerals, uses, properties & deposits of Ti	
	Day-2 22/11/2022	Types of treatments given to titanium ore.	
	Day-3 23/11/2022	Chlorination & magnetic reduction of titanium & production of ductile titanium	
	Day-4 24/11/2022	Process of Refining Titanium (Distillation) & Review of Titanium extraction.	
WK-11 28/11/2022 to 03/12/2022	Day-1 28/11/2022	Introduction to precious metals & their use.	
	Day-2 29/11/2022	Minerals, properties, uses & deposit of gold.	
	Day-3 30/11/2022	Introduction to various process of gold extraction.	
	Day-4 01/12/2022	Details of Cyanidation process of gold extraction.	
WK-12 05/12/2022 to 10/12/2022	Day-1 05/12/2022	Gold extraction as adopted in India & Purification of Gold	
	Day-2 06/12/2022	Class test on chapter 4.0 (extraction of medals from) & 5.0 (process medals.)	

	Day-3 07/12/2022	Introduction to secondary metals	
	Day-4 08/12/2022	Sources of various secondary metals.	
WK-13 12/12/2022 to 17/12/2022	Day-1 12/12/2022	Extraction of secondary copper	
	Day-2 13/12/2022	Production of secondary Pb	
	Day-3 14/12/2022	Production of secondary Zn	
	Day-4 15/12/2022	Production of secondary Aluminum.	
WK-14 19/12/2022 to 24/12/2022	Day-1 19/12/2022	Review of Secondary metal production	
	Day-2 20/12/2022	Discussion on pollution related to Non-Ferrous industries.	
	Day-3 21/12/2022	Discussion of previous Yr questions	
	Day-4 22/12/2022	A very similar test covering entire syllabus.	