


PLANNED SYLLABUS COVERAGE (THEORY)

G P Kullu		Department: Applied Sciences & Humanities Subject- Applied Chemistry II				
		Branch - <u>Electrical Engg.</u>	Semester- Second			
SYLLABUS COVERAGE		Planned Theory Periods- <u>49 Nos.</u>				
Sr No	Date	Topic	Details	Instruction Reference	Additional Study Recommended	Remarks
1	8 ¹ / ₂₀ , 9 ¹ / ₂₀	Metallurgy	Metallurgical Terms and operations, extraction of pure iron and copper, aluminum from their chief ores .			
	10 ¹ / ₂₀ , 15 ¹ / ₂₀		Manufacture of wrought iron and steel by open hearth process and L.D. process .Alloys, their composition ,properties and uses			
	16 ¹ / ₂₀ , 17 ¹ / ₂₀		Composition, properties and uses of brass, bronze, gun metal and magnalium			
	18 ¹ / ₂₀ , 21 ¹ / ₂₀					
	24 ¹ / ₂₀ , 24 ¹ / ₂₀					
2	29 ¹ / ₂₀ , 31 ¹ / ₂₀	Corrosion	Definition of Corrosion of electro chemical theory of corrosion passivity of metals , galvanic cells.			
	31 ¹ / ₂₀ , 1 ² / ₂₀		Preventions and control on measure :internal measure, external measure.(a)metallic (b)non metallic coating and sacrificial anode.			
	5 ² / ₂₀ , 7 ² / ₂₀					
3	7 ² / ₂₀ , 12 ² / ₂₀	Fuels	Introduction, combustion, classification of fuels, characteristics of good fuel ,calorific value, determination of calorific value by bomb calorimeter, and dulong's formula.	Engg. Chem.by Shashi Chawla, Eagle Publications , Hiteshi Publications		
	14 ² / ₂₀ , 14 ² / ₂₀		fuel rating : octane number, cetane number, influence of chemical composition , structure on fuel rating.			
	15 ² / ₂₀ , 19 ² / ₂₀					
	22 ² / ₂₀ , 26 ² / ₂₀		Gases fuels : natural gas, L.P.G. , CNG, hydrogen , composition, manufacture and uses of water gas , producer gas , bio gas , merits and demerits of gases fuels over solid and liquid fuels .			
	23 ² / ₂₀ , 28 ² / ₂₀					
4	29 ² / ₂₀ , 3 ³ / ₂₀	Lubricants	Definition and classification of lubricants , mechanism of lubrication ,characteristics of good lubricants , properties of lubricants : such as oiliness , emulsification ,flash and fire point , volatility , viscosity and viscosity index , cloud and pour point acidity value .			
	6 ³ / ₂₀ , 16 ³ / ₂₀					
	7 ³ / ₂₀ , 11 ³ / ₂₀					

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5	13 ³ / ₂₀ , 13 ³ / ₂₀ 18 ³ / ₂₀ , 20 ³ / ₂₀ 20 ³ / ₂₀	Paints & Varnishes	Constituents of paints , characteristics of good paint characteristics of varnishes ,constituents of enamels ,uses of paints varnishes and enamels	Engg. Chem.by Shashi Chawla, Eagle Publications , Hiteshi Publications	NCERT(+1,+2 Chemistry books), Pradeep Publications, Dinesh Publications	
6	27 ³ / ₂₀ , 25 ³ / ₂₀ 28 ³ / ₂₀ 14 ³ / ₂₀	Refractories	Introduction of good refractory materials, types and chemical composition of acidic, basic and neutral refractory, application of refractories.			
7	3 ⁴ / ₂₀ , 3 ⁴ / ₂₀ 4 ⁴ / ₂₀ , 8 ⁴ / ₂₀	Revision				
8	17 ⁴ / ₂₀ , 17 ⁴ / ₂₀ 18 ⁴ / ₂₀	Revision				

Signature of Teacher with name :


(Aman Saini)

APPROVED	SIGN HOD/PPL
DATE -----	