

Lesson Planning for the semester started w.e.f.....5th Jan. 2018

Name of Institute :- Sat Kabir Institute of Technology and Management,Ladrawan (Jhajjar)

Name of teacher with designation :-Ms Pooja , A.P

Department :- Applied Science

Month	Class	Topic/Chapter Covered	Academic Activity	Test/Assignment
Jan.	2 nd	Phase Rule & Catalysis : Terminology, One component system (H ₂ O system and CO ₂ – system), two components system, Simple eutectic system (Pb – Ag), system with congruent melting point (Zn – Mg), system with incongruent melting point, Cooling curves. (2 weak)	ppt	Assignment
		Catalysis : Homogeneous, heterogeneous, and enzymatic. Concepts of promoters, inhibitors, and poisoners. (2 weak)	ppt	Test
Feb.	2 nd	Water & its treatment : Part – I Sources of water, impurities in water, hardness of water and its determination ,(EDTA method)units of hardness, alkalinity of water and its determination, Related numerical problems, scale and sludge formation, Boiler corrosion & caustic embrittlement. (2 weak)	ppt	Assignment
		Water and its treatment : Part – II Treatment of water for domestic use, coagulation, sedimentation, filtration and disinfection.water softening : Lime-Soda treatment, Zeolite, Ion – exchange process, mixed beddeminerlization, Desalination (ReverseOsmosis , electro dialysis) & related numericals. (2 weak)	ppt	Test
March	2 nd	Corrosion and its prevention: Mechanism of Dry and wet corrosion (rusting of iron), types of corrosion, galvanic corrosion, differential aeration corrosion, stress corrosion. Factors affecting corrosion, preventive measures (proper design, Cathodic andAnodic protection, Electroplating , tinning, galvanization.), Soil Corrosion, Microbiological Corrosion (2 weak)	ppt	Assignment
		Lubrication and Lubricants: Introduction, mechanism of lubrication, classification of lubricants, (Liquid, Grease (semi – solid) and solid (MoS ₂ , Graphite). Additives for lubricants. Properties of lubricants (Flash & Fire point, Saponification number,Iodine value, Acid value , Viscosity and Viscosity index Aniline point, Cloud point and pour point) Numerical problems basedof viscosity Index. Biodegradable lubricants. (2weak)	ppt	Test
April	2 nd	Polymers and polymerization : Introduction & Classification of polymers mechanism of polymerization effect of structure on properties of polymers, Bio polymerization, Bio degradable polymerization, preparation properties and technical application of thermo – plastics & thermosets), Natural elastomers and synthetic rubber . Silicones , Introduction to polymeric composites. (2 weak)	ppt	Assignment
		Instrumental Methods of Analysis : Principle and application of Thermal methods of Analysis. (TGA, DTA, DSC), Basic concepts of spectroscopy, Lambert and Beers law, Absorption and Emission spectroscopy Different spectroscopic Techniques (UV- Visible and IR spectroscopy) elementary discussion on Flame photometry. (2weak)	ppt	Test

Pooja(29/12/2017)

Signature of the *teacher* concerned with date

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Jan.	2 nd (Chemistry)	Week 1. Determination of Ca ⁺⁺ and Mg ⁺⁺ hardness of water using EDTA solution .Group A Group B	To be performed	
		Week 2. Determination of alkalinity of water sample.Group A, Group B	To be performed	
		Week 3 Determination of dissolved oxygen (DO) in the given water sample. Group A, Group B	To be performed	
		Week 4. Lab problems And File Checking	File checking	
Feb.	2 nd (Chemistry)	Week 1 To find the eutectic point for two component system by using method of cooling curve Group A Group B	To be performed	
		Week 2 Determination of viscosity of lubricant by Red Wood Viscosity. Group A Group B	To be performed	
		Week 3 To determine flash point & fire point of anil by Pensky Marten’s flash point apparatus Group A Group B	To be performed	
		Week 4. Lab problems And File Checking Group A Group B	File checking	
March	2 nd (Chemistry)	Week 1 To Prepare Phenol – formaldehyde and Urea formaldehyde resin. Group A Group B	To be performed	
		Week 2 To find out saponification No of Oil Group A Group B	To be performed	
		Week 3 To determine TDS of Water samples of different sources.. Group A Group B	To be performed	
		Week 4. Lab problems And File Checking Group A Group B	File checking	
April	2 nd (Chemistry)	Week 1 Determination of concentration of KMnO ₄ solution spectrophotomererically Group A Group B	To be performed	
		Week 2 Lab problems And File Checking Group A Group B	File checking	
		Week 3 Internal Viva Group A Group B	Viva	

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