

Department Wise Information Regarding Faculty

Faculty Name	Designation	Pay scale with AGP	Email (Contact Mob. No.)
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Engineering Chemistry Lab
Subject Code: 107
Class: B.Tech I Year (I Sem.)
Branch: CS1(A1,A2,)
Format for Syllabus Break up

S.No.	Topic	Lecture/required to cover the topic	Tutorial/required to solve the topic problems	Month in which the topic will be covered	Actual date and day of covering the Topic ECE (Mon,Tue, Wed)	Actual date and day of covering the Topic ME (Tue, Wed,Fri)
1.	UNIT-1 Interaction with Students, Brief of Syllabus and Mark distribution Pattern	1		August	Aug.10 th (Mon.)	Aug.07 th (Fri.)
2.	Organic fuels, Origin, classification and general aspects of fossil fuels.	1		August	Aug.11 th (Tue.)	Aug.11 th (Tue.)
3.	Solid fuels, Coal, carbonization of coal	1		August	Aug.12 th (Wed.)	Aug.12 th (Wed.)
4.	Manufacturing of coke by Beehive oven and by product oven method	1		August	Aug.17 th (Mon.)	Aug.14 th (Fri.)
5.	Recovery of by products by Hoffman method,	1		August	Aug.18 th (Tue.)	Aug.18 th (Tue.)

	Liquid fuels, Composition of petroleum					
6.	Advantages and refining of petroleum	1		August	Aug.19 th (Wed.)	Aug.19 th (Wed.)
7.	Cracking	1		August	Aug.24 th (Mon.)	Aug.21 ^h (Fri.)
8.	Reforming, polymerization and isomerization of refinery products	1		August	Aug.25 th (Tue.)	Aug.25 th (Tue.)
9.	Synthetic petrol, Bergius and Fischer Tropsch process	1		August	Aug.26 th (Wed.)	Aug.26 th (Wed.)
10.	Knocking, octane number and anti-knocking agents.	1		August/Sept.	Sep.,01 th (Tue.)	Aug.28 th (Fri.)
11.	Gaseous fuels, Advantages, manufacturing	1		August/Sept.	Sep,02 th (Wed.)	Sep..01 th (Tue.)
12.	composition and calorific value of coal, gas and oil gas.	1		Sep.	Sep.7 th (Mon.)	Sep,02 th (Wed.)
13.	UNIT-2 Ultimate and proximate analysis of coal	1		Sep.	Sep.,08 th (Tue.)	Sep., .04 th (Fri.)
14.	Determination of calorific value of solid by bomb calorimeter	1		August/Sept.	Sep,09 th (Wed.)	Sep..08 th (Tue.)
1	Determination	2		Sep.		Sep,09 th (Wed.)

	n of calorific value of gaseous fuel by Junker's Calorimeter				Sep.14 th (Mon.)	
16.	Calculations of calorific value based on Dulong's formula	1		Sep.	Sep.,15 th (Tue .)	Sep., .11 th (Fri.)
17.	Flue gas analysis by Orsat's apparatus and its significance.	1		Sep.	Sep,16 th (Wed.)	Sep..15 th (Tue.)
18.	Numerical based on bomb Calorimeter	1		Sep.	Sep.21 ^h (Mon.)	Sep,16 th (Wed.)
19.	Combustion, requirement of oxygen/ air in combustion process.	1		Sep. /Oct.	Sep.,22 th (Tue .)	Sep., .18 th (Fri.)
20.	Numerical based on bomb Calorimeter	1		Sep./ Oct.	Sep.28 ^h (Mon.)	Sep..22 th (Tue.)
21.	Combustion, requirement of oxygen/ air in combustion process.	2		Sep./ Oct.	Sep.,29 th (Tue .)	Sep.,29 th (Tue .)
22.	UNIT-3 Polymers: Different methods of classification	1		Sep./ Oct.	Sep.,30 th (Wed.) <i>I mid Term,</i> Oct.05 (Mon.),	Sep.,30 th (Wed.) <i>I mid Term,</i>
23.	Basic ideas of polymerization mechanisms	1		Sep./ Oct.	Oct.,06 (Tue.)	Oct.,06 (Tue.)
24.	Elastomers: Natural	1		Oct.	Oct.,07 (Wed.)	Oct.,07 (Wed.)

	rubber, vulcanization					
2 5.	Synthetic Rubbers viz. Buna-S, Buna-N, Butyl and neoprene rubbers.	1		Oct.	Oct.12 (Mon.),	Oct.,09 (Fri.)
2 6.	Shown Evaluated Copies of I Mid Term	1		Oct.	Oct., 14 (Wed.)	Oct.,14 (Wed.)
2 7.	UNIT-3 Fullerenes: Introduction, properties, preparation and uses.	1		Oct.	Oct.19 (Mon.),	Oct.,16 (Fri.)
2 8.	Organic Electronic Materials (including conducting polymers- poly (p-phenylene)	1		Oct.	Oct.,20 (Tue.)	Oct.,20 (Tue.)
2 9.	polythiophenes, Polyphenylene, vinylenes, polypyrroles, polyaniline).	1		Oct.	Oct. 26 (Mon.),	Oct.,27 (Tue.)
3 0.	UNIT-4 Cement: Definition, Composition, basic constituents and their significance	1		Oct./Nov.	Oct.,27 (Tue.)	Oct.,28 (Wed.)
3 1.	Manufacturing of Portland cement by Rotary Kiln Technology	1		Oct./ Nov	Oct.,28 (Wed.)	.Nov. 03,(Tue)
3	Chemistry of	1		Oct./	Nov. 02,	Nov. 04,(Wed)

	setting and hardening of cement and role of gypsum.			Nov	(Mon)	
3 3.	UNIT-4 Glass: Definition, Properties, Manufacturing of glass	1		Oct./ Nov	Nov. 03,(Tue)	Nov. 06,(Fri)
3 4.	Importance of annealing in glass making, Optical fiber grade glass	1		Oct./ Nov	Nov. 04, (Wed)	Nov. 17,(Tue)
3 5.	Types of silicate glasses and their commercial uses	1		Oct./ Nov	Nov. 09, (Mon)	Nov. 18,(Wed)
3 6.	UNIT-5 Refractory: Definition, classification, properties	1		Oct./ Nov	Nov. 16, (Mon),	Nov. 20,(Fri)
3 7.	Requisites of good refractory and manufacturing of refractory.	1		Oct./ Nov	Nov. 17,(Tue)	Nov. 24,(Tue)
3 8.	Preparation of Silica and fire clay refractory with their uses.			Oct./ Nov	Nov. 18, (Wed)	Nov. 27,(Fri)
3 9.	Seeger's (Pyrometric) Cone Test and RUL Test	1		Oct./ Nov	Nov. 23, (Mon),	Nov. 27,(Fri)
4 10.	UNIT-5 Lubricants: Introduction,	1		Oct./ Nov	Nov. 24,(Tue)	Dec. 1(Tue.)

	classification and uses of lubricants. Types of lubrication.					
4 1.	Viscosity & viscosity index	1		Oct./ Nov	Nov. 30, (Mon),	Dec. 2(wed.)
4 2.	Flash and fire point, cloud and pour point			Oct./ Nov	Nov. 30, (Mon),	Dec. 4(Fri..)
4 3.	Steam Emulsion Number, Precipitation number, neutralisation Number.	1			Dec.1 (Tue)	Dec. 8(Tue.)
4 4.	Revision :Combustion Numericals/ Discuss Problem	1			Dec.2 (Wed)	Dec. 9(wed.)
4 5.	Revision :Combustion Numericals/ Discuss Problem	1			Dec..07, (Mon),	Dec. 11(Fri..)
4 6.	Test	1			Dec.08(Tue)	
4 7.	Test	1			Dec.09 (Wed)	

S.No.	Topic	Tutorial/ required to solve the topic problems	Month in which the topic will be covered C2
1.	Defination and classifications Fules	1	Aug. 08,
2.	Coke Production and Synthetic Fules	1	Aug,22
3.	Carbonisation of Fules and refining of Petroleum	1	Sep.,12
4.	Prcatice on Ultimate	1	Sep.,19

	and proximate analysis of coal ,Dulong Numericals.		
5.	Prctatice on Bomb numericals, Junker's based Numericals,	1	Sep.,26
6.	Combustion(By Weight) based numericals	1	Oct,10
7.	Combustion (By volume) based numericals, Polymers , Vulcalisation	1	Oct,17
8.	New Engineering Material	1	Oct,31
9.	Cement,Glass	1	Nov. 07
10.	Refractory	1	Nov.,14
11.	Types of Refractory	1	Nov.,21
12.	Lubrication	1	Nov.,28
13.	Properties of Lubricants	1	Dec. 05

Topic	practical classes required to cover the Topic	Month in which the topic will be covered	Actual date of covering the Topic	
First Week (6th-8th Aug.,2015)				
Introduction: Laboratory Safety Measures	01	August 2015	E1, August,6 th (Thurs)	-
Introduction: Laboratory Safety Measures	01	August 2015	E2, August,7 th (Fri)	
Introduction: Laboratory Safety Measures	01	August 2015	E3, August,8 th (Sat)	
Second Week(10th-15th Aug.,2015)				
Introduction: Laboratory Safety Measures	1	August 2015	C2, August,10 th (Mon)	

Introduction: Laboratory Safety Measures	1	August 2015	C3, August,11 th (Tue)	
Introduction: Laboratory Safety Measures	1	August 2015	C1, August,12 th (Wed)	
Basics of Practicals	1	August 2015	E1, August,13 th (Thurs)	
Basics of Practicals	1	August 2015	E2, August14 th (Fri)	
Third Week(17th-22nd Aug.,2015)				
Introduction: Basics of Practicals	1	August 2015	C2, August,17 th (Mon)	
Introduction: Basics of Practicals	1	August 2015	C3, August,18 th (Tue)	
Introduction: Basics of Practicals	1	August 2015	C1, August,19 th (Wed)	
Introduction: Basics of Analysis	1	August 2015	E1, August,20 th (Thurs)	
Introduction: Basics of Analysis	1	August 2015	E2, August 21 th (Fri)	
Introduction: Basics of Practicals ,Basics of Analysis	1	August 2015	E3, August,22 nd (Sat)	
Fourth Week(24th-29th Aug.,2015)				
Introduction: Basics of Analysis	1	August 2015	C2, August,24 th (Mon)	
Introduction: Basics of Analysis	1	August 2015	C3, August,25 th (Tue)	
Introduction: Basics of Analysis	1	August 2015	C1, August,26 th (Wed)	
Introduction: Types of Titration	1	August 2015	E1, August,27 th (Thurs)	
Introduction: Types of Titration	1	August 2015	E2, August,24 th (Fri)	
Fifth Week (31st Aug.,2015)				
Types of Titration, To determine the strength of Ferrous Ammonium sulphate solution with the help of K₂Cr₂O₇ solution	1	August ,2015	C2, August,31 st (Mon)	
First Week (1st-5th Sep.,2015)				

Types of Titration, To determine the strength of Ferrous Ammonium sulphate solution with the help of K₂Cr₂O₇ solution	01	Sep., 2015	C3, September ,1 st (Tue)
Types of Titration, To determine the strength of Ferrous Ammonium sulphate solution with the help of K₂Cr₂O₇ solution	01	Sep., 2015	C1, September,2 nd (Wed)
To determine the strength of Ferrous Ammonium sulphate solution with the help of K₂Cr₂O₇ solution	01	Sep., 2015	E1, September,3 th (Thurs)
To determine the strength of Ferrous Ammonium sulphate solution with the help of K₂Cr₂O₇ solution	01	Sep., 2015	E2,September,4 th (Fri)
Second Week (7th-12th Sep.,2015)			
To determine the strength of CuSO₄ solution with the help of hypo solution	01	Sep., 2015	C2, September,7 th (Mon)
To determine the strength of CuSO₄ solution with the help of hypo solution	01	Sep., 2015	C3, September ,8 th (Tue)
To determine the strength of CuSO₄ solution with the help of hypo solution	01	Sep., 2015	C1, September,9 th (Wed)
To determine the strength of CuSO₄ solution with the help of hypo solution	01	Sep., 2015	E1, September,10 th (Thurs)
To determine the	01	Sep., 2015	E2,September,11 th (Fri)

strength of CuSO_4 solution with the help of hypo solution				
Types of Titration, To determine the strength of Ferrous Ammonium sulphate solution with the help of $\text{K}_2\text{Cr}_2\text{O}_7$ solution	01	Sep., 2015	E3, September ,12 ^h (Sat)	
Third Week (14th-19th Sep.,2015)				
To determine the Calorific Value of Solid Fuel by using Bomb Calorimeter	01	Sep., 2015	C2, September,14 th (Mon)	
To determine the Calorific Value of Solid Fuel by using Bomb Calorimeter	01	Sep., 2015	C3, September ,15 th (Tue)	
To determine the Calorific Value of Solid Fuel by using Bomb Calorimeter	01	Sep., 2015	C1, September16 th (Wed)	
To determine the Calorific Value of Solid Fuel by using Bomb Calorimeter	01	Sep., 2015	E1, September,17 th (Thurs)	
To determine the Calorific Value of Solid Fuel by using Bomb Calorimeter	01	Sep., 2015	E2,September,18 th (Fri)	
To determine the strength of CuSO_4 solution with the help of hypo solution	01	Sep., 2015	E3, September ,19 th (Sat)	
Fourth Week (21st-26th Sep.,2015)				
Practical Test: Basic of Practicals	01	Sep., 2015	C2, September,21 st (Mon)	
Practical Test: Basic of Practicals	01	Sep., 2015	C3, September ,22 th (Tue)	
Practical Test: Basic of Practicals	01	Sep., 2015	E1, September,24 th (Thurs)	
To determine the Calorific Value of Solid Fuel by using Bomb Calorimeter, Practical Test: Basic of Practicals	01	Sep., 2015	E3, September ,26 th (Sat)	

Fifth Week (28st-30th Sep.,2015)				
Practical Test:To determine the strength of Ferrous Ammonium sulphate solution with the help of K₂Cr₂O₇ solution	01	Sep., 2015	C2, September,28 th (Mon)	
Practical Test:To determine the strength of Ferrous Ammonium sulphate solution with the help of K₂Cr₂O₇ solution	01	Sep., 2015	C3, September ,29 th (Tue)	
Ist Mid Term			C1, September, 30 th (Wed)	
First Week (1st-3rd Oct.,2015)				
Ist Mid Term			E1, Oct., 1 st (Thurs)	
Ist Mid Term			E3, Oct. ,3 rd (Sat)	
Second Week (5th-10th Oct.,2015)				
Proximate analysis of solid fuel	01	Oct., 2015	C2,Oct.,5 th (Mon)	
Proximate analysis of solid fuel	01	Oct., 2015	C3, Oct. , 6 th (Tue)	
Proximate analysis of solid fuel	01	Oct., 2015	C1, Oct.7 th (Wed)	
Proximate analysis of solid fuel	01	Oct., 2015	E1, Oct.,8 th (Thurs)	
Proximate analysis of solid fuel	01	Oct., 2015	E2,Oct.,9 th (Fri)	
Proximate analysis of solid fuel	01	Oct.Oct., 2015	E3, Oct. ,10 th (Sat)	
Third Week (12th-17th Oct.,2015)				
To determine the viscosity of a given lubricating oil by Redwood viscometer.	01	Oct., 2015	C2,Oct.,12 th (Mon)	
To determine the viscosity of a given lubricating oil by Redwood viscometer.	01	Oct., 2015	C1, Oct.14 ^h (Wed)	
To determine the viscosity of a given lubricating oil by Redwood	01	Oct., 2015	E1, Oct.,15 th (Thurs)	

viscometer.				
To determine the viscosity of a given lubricating oil by Redwood viscometer.	01	Oct., 2015	E2, Oct., 16 th (Fri)	
To determine the viscosity of a given lubricating oil by Redwood viscometer.	01	Oct., 2015	E3, Oct., 17 th (Sat.)	
Fourth Week (19th-24th Oct., 2015)				
Practical Test: To determine the Calorific Value of Solid Fuel by using Bomb Calorimeter	01	Oct., 2015	C2, Oct., 19 th (Mon)	
To determine the viscosity of a given lubricating oil by Redwood viscometer.	01	Oct., 2015	C3, Oct. , 20 th (Tue)	
Fifth Week (26th-31th Oct., 2015)				
To determine the strength of NaOH and Na ₂ CO ₃ in a given alkali mixture.	01	Oct., 2015	C2, Oct., 26 th (Mon)	
To determine the strength of NaOH and Na ₂ CO ₃ in a given alkali mixture.	01	Oct., 2015	C3, Oct. , 27 th (Tue)	
To determine the strength of NaOH and Na ₂ CO ₃ in a given alkali mixture.	01	Oct., 2015	C1, Oct. 28 th (Wed)	
To determine the strength of NaOH and Na ₂ CO ₃ in a given alkali mixture.	01	Oct., 2015	E1, Oct., 29 th (Thurs)	
To determine the strength of NaOH and Na ₂ CO ₃ in a given alkali mixture.	01	Oct., 2015	E2, Oct., 30 th (Fri)	
To determine the strength of NaOH and Na ₂ CO ₃ in a given alkali	01	Oct., 2015	E3, Oct., 31 st (Sat.)	

mixture.				
First Week (02nd-07th Nov.,2015)				
Practical Test:To determine the strength of NaOH and Na₂CO₃ in a given alkali mixture.	01	Nov., 2015	C2,Nov.,02 nd (Mon)	
Practical Test:To determine the strength of NaOH and Na₂CO₃ in a given alkali mixture.	01	Nov., 2015	C3, Nov., 03 rd (Tue)	
Practical Test:To determine the strength of NaOH and Na₂CO₃ in a given alkali mixture.	01	Nov., 2015	C1, Nov.04 th (Wed)	
Practical Test:To determine the strength of NaOH and Na₂CO₃ in a given alkali mixture.	01	Nov., 2015	E1,Nov,05 th (Thurs)	
Practical Test:To determine the strength of NaOH and Na₂CO₃ in a given alkali mixture.	01	Nov., 2015	E2,Nov.,06 th (Fri)	
Practical Test:To determine the strength of NaOH and Na₂CO₃ in a given alkali mixture.	01	Nov., 2015	E3,Nov.,07 st (Sat.)	
Second Week (09nd -14th Nov.,2015)				
Practical Test:To determine the strength of CuSO₄ solution with the help of hypo solution	01	Nov., 2015	C2,Nov.,09 th (Mon)	
Practical Test:To determine the strength of CuSO₄ solution with the help of hypo solution	01	Nov., 2015	C3, Nov., 10 th (Tue)	
Third Week (16th -21st Nov.,2015)				

To determine the viscosity of a given lubricating oil by Redwood viscometer No. 1.	1	Nov., 2015	C2, Nov., 16 th (Mon)	
To determine the viscosity of a given lubricating oil by Redwood viscometer No. 1.	1	Nov., 2015	C3, Nov., 17 th (Tue)	
To determine the viscosity of a given lubricating oil by Redwood viscometer No. 1.	1	Nov., 2015	C1, Nov. 18 th (Wed)	
To determine the viscosity of a given lubricating oil by Redwood viscometer No. 1.	1	Nov., 2015	E1, Nov, 19 th (Thurs)	
To determine the viscosity of a given lubricating oil by Redwood viscometer No. 1.	1	Nov., 2015	E2, Nov., 20 th (Fri)	
To determine the viscosity of a given lubricating oil by Redwood viscometer No. 1.	1	Nov., 2015	E3, Nov., 21 st (Sat.)	
Fourth Week (24th -28th Nov., 2015)				
To determine cloud and pour point of a given oil.	1	Nov., 2015	C2, Nov., 24 th (Mon)	
To determine cloud and pour point of a given oil.	1	Nov., 2015	C3, Nov., 25 th (Tue)	
To determine cloud and pour point of a given oil.	1	Nov., 2015	C1, Nov. 26 th (Wed)	
To determine cloud and pour point of a given oil.	1	Nov., 2015	E1, Nov, 27 th (Thurs)	
To determine cloud and pour point of a given oil.	1	Nov., 2015	E2, Nov., 28 th (Fri)	
To determine cloud and pour point of a given oil., and To Determine Flash & Fire Point of a	1	Nov., 2015	E3, Nov., 29 th (Sat.)	

Given Oil				
Fifth Week (30th Nov.,2015)				
To determine the flash and fire point of a given lubricating oil.	1	Nov., 2015	C2,Nov.,30 th (Mon)	
First Week (1st -5th Dec.,2015)				
To determine the flash and fire point of a given lubricating oil.	01	Dec., 2015	C3,Dec.,01 st (Tue)	
To determine the flash and fire point of a given lubricating oil.	01	Dec., 2015	C1, Dec., 02 nd (Wed)	
To determine the flash and fire point of a given lubricating oil.	01	Dec., 2015	E1, Dec.,03 rd (Thurs)	
To determine the flash and fire point of a given lubricating oil.	01	Dec., 2015	E2,Dec.,04 th (Fri)	
Internal Practical Exam,2015	1	Dec., 2015	E3,Dec.,05 th (Sat.)	
Second Week (7th -12th Dec.,2015)				
Internal Practical Exam,2015	01	Dec., 2015	C2,Dec.,07 th (Mon)	
Internal Practical Exam,2015	01	Dec., 2015	C3, Dec., 08 th (Tue)	
Internal Practical Exam,2015	01	Dec., 2015	C1, Dec.,09 th (Wed)	
Internal Practical Exam,2015	01	Dec., 2015	E1,Dec.,10 th (Thurs)	
Internal Practical Exam,2015	01	Dec., 2015	E2,Dec.,11 th (Fri)	
Enternal Practical Exam,2015	01	Dec., 2015	E3,Dec.,12 st (Sat.)	
Second Week (14th -19th Dec.,2015)				
External Practical Exam,2015				