

Chemistry teaching schedule - Form 5

A. Periods allocation

Term	No. of weeks	No. of periods
1st	13	65
2nd	15	75
Total	28	140

B. Topics covered

Term	1 st term*	2 nd term
Content	Laboratory safety & regulation (1 period) 6. Microscopic world 2(15 periods) 8. Chemical reactions and energy (15 periods) 9. Rate of reaction (15 periods) 10. Chemical equilibrium (15 periods) UT (4 periods)	5. Fossil fuels and carbon compounds (25 periods) 11. Chemistry of carbon compounds (35 periods) 12. Patterns in the chemical world (10 periods) UT (4 periods)

* 61. Detecting the presence of chemical species (part 15) will be covered on the first term.

D. Teaching Schedule**1st term**

Date	Period	Content	Activity / Experiment	UT	Remarks
05/09 – 26/09	1	Course requirements Laboratory Safety & Regulations	Fire drill		
	15	6. The Microscopic World 2 24. Simple molecular substances with non-octet structures and shapes of simple molecules 25. Polarity of bond and molecule 26. Intermolecular forces 27. Structures and properties of molecular crystals	Expt: - Building models with different shapes - Effect of electrostatic field on polar and non-polar liquid - 5-in-1 MC	UT (part 6)	
26/09 – 19/10	15	8. Chemical reactions and energy 33. Energy changes in chemical reactions 34. Standard enthalpy change of reactions 35. Hess's law	Expt: - Enthalpy change of reactions - Application of Hess's Law - SBA (expt) - 5-in-1 MC	UT (part 8) UT (QA)	
22/10 – 9/11	15	9. Rate of reactions 36. Rate of chemical reaction 37. Factors affecting rate of reaction 38. Molar volume of gases at r.t.p.	Expt: - rate equation - effect of catalyst / temp on rate of reactions - catalytic effect on transition element - SBA (expt) - 5-in-1 MC	UT (part 9)	
12/11 – 19/12	15	10. Chemical equilibrium 39. Dynamic equilibrium 40. Equilibrium constant 41. The effect of changes in concentration and temperature on chemical equilibria	Expt: Demo: effect of temperature and conc. - Measure reaction rate by volume - SBA (QA) - 5-in-1 MC	UT (part 10)	
21/12 – 01/01	Christmas Holiday				
02/01 – 18/01	1st examination				

2nd term

Date	Period	Content	Activity / Experiment	UT	Remarks
21/01 – 23/01	1	Examination Review			
24/01 – 30/01	5	5. Fossil fuels and carbon compounds 20. Hydrocarbons from fossil fuels	SBA (QA) Past paper MC		
31/1 – 9/02	Lunar New Year Holiday				
11/2 – 20/2	9	5. Fossil fuels and carbon compounds 21. Homologous series, structural formulae and naming of carbon compounds	Past paper MC		
21/02 – 06/03	10	11. Chemistry of carbon compounds 44. Introduction to selected homologous series 45. Isomerism	SBA (QA)		
07/03 – 20/03	10	5. Fossil fuels and carbon compounds 22. Alkane and alkenes 23. Addition polymers	Past paper MC		
25/03 - 30/03	UT				
01/04 – 12/04	8	11. Chemistry of carbon compounds 44. Typical reactions of various functional groups 45. Inter-conversions of carbon compounds			
15/04 – 22/04	Easter Holiday				
29/04 – 17/05	17	11. Chemistry of carbon compounds 45. Inter-conversions of carbon compounds 46. Important organic substances	SBA (VA) Past paper MC	UT (part 5.11)	
20/05 – 31/05	10	12. Patterns in the chemical world 47. Periodic variation in physical properties of the elements Li to Ar 48. Bonding, stoichiometric composition and acid-base properties of oxides of the elements Na to Cl 49. General properties of transition metals (paper 1 review, 4 periods)	Past paper MC	UT (part 12)	
03/06 – 18/06	Yearly examination				

Summer revision:

13. Industrial chemistry (Elective) 50. Importance of industrial processes + 51. Rate equation