

College Name & Symbol..... Vivekanand College (Autonomous),
Kolhapur



(Affiliated to shivaji University, Kolhapur)

Teacher's Personal Information

Academic Year – 2018-2019

Name in full: Dr. Mrs. Sarita Dattajirao Shinde

Qualification: M.Sc., Ph.D. Department : Chemistry

Designation: Assistant Prof. Date of Appointment: 28/03/2016

Present Pay Scale: 15600 - 39100 Blood Group: O⁺

ADDRESS

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Individual Time Table

Academic year - 2018 - 2019

DEPARTMENT ... Chemistry ... Timings: 11:30 to 4:30

Sr. No.	Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	11:30 to 12:18				7:30 to 11:30 B.Sc. III Pract.	B.Sc. II Pract.	B.Sc. II Pract.
2	12:18 to 1:06		B.Sc. III		B.Sc. III		
3	1:06 to 1:54						
Short Recess							
4	2:05 to 2:53		B.Sc. I/II/III				
5	2:53 to 3:41			B.Sc. II			
6	3:41 to 4:29	B.Sc. I Pract.					
7	4:29 to 5:17		B.Sc. II				
8							

Abpabil

Head of Department

Dept. of Chemistry
Vivekanand College, Kolhapur

Theory: Practical: 18

Total No. of Periods per Week: 21



Abpabil
Principal
PRINCIPAL
Vivekanand College
Kolhapur

ANNUAL TEACHING PLAN

Academic Year: 2018..... - 2019.....

Class: B.Sc.I. Division: A+B+C

Subject: Chemistry

Paper Title: Inorg. Chem.

Paper No.: II Sem I
II Sem II

			Topic/ Unit	Sub-units Planned
Month: June			Ionic solid	1) Introduction 2) Defi ⁿ of bonds 3) Formation of ionic bond.
Teaching days	14			
Periods Allotted	08			
Periods available	08			
Teaching	Practical's/ Tutorials	Tests		
02	-	-		
Month: July			Ionic solid	1) Energetics of ionic bond 2) Born Haber cycle 3) Fajan's Rule 4) Radius ratio, radius ratio effect & cub ⁿ of o/h ^o for octahedral geometry 5) mg by Eudiometer
Teaching days	25			
Periods Allotted	08			
Periods available	06			
Teaching	Practical's/ Tutorials	Tests		
06	04	-		
Month: August			Ionic solid P-block elements	1) Crystal structure of NaCl, CsCl, ZnS & TiO ₂ based on properties 2) Introduction 3) Ele. configuration 4) Periodic trends 5) Allotropic forms of Phosphorous 6) org. spotting @ Bulk salt
Teaching days	25			
Periods Allotted	10			
Periods available	08			
Teaching	Practical's/ Tutorials	Tests		
08	16	-		

Month: September		Topic/ Unit	Sub-units Planned		
Teaching days	24	p-block elements	1) Allotropic forms of sulphur 2) oxoacids of sulphur and phosphorous, N 3) Structures of $HNO_2, HNO_3, H_3PO_3, H_3PO_4, H_2SO_3, H_2SO_4$ 4) ESB ^{imp.} $Amilins, H_2O$ ^{analysis}		
Periods Allotted	08				
Periods available	08				
Teaching	08			Practical's/ Tutorials	08
Month: October		Chemistry of Noble Gases	1) Introduction 2) physical properties 3) chemical properties 4) clathrate compounds 5) structure and Bonding of Xenon compounds 6) ESB ^{imp.} $spitting, Heat of fusion$		
Teaching days	21				
Periods Allotted	08				
Periods available	06				
Teaching	06	Practical's/ Tutorials	16	Tests	—
Month: November		Sem II			
Teaching days	11	28/10/18 to 17/11/18	Diwali vacation		
Periods Allotted	06	B.Sc. II Paper VIII	CAP Assessment		
Periods available	—	07, 21, 22, 23, 24,	26 Nov 18 - Supervisor for SUK theory Exam.		
Teaching	—	B.Sc. I Paper II	Assessment.		
Practical's/ Tutorials	—				
Tests	—				
Month: December		B.Sc. I paper Assessments Fuels Paper IV	1) Introduction, ESB ^{imp.} of C.V. Fuels 2) C.V. by bomb calorimeter 3) Vinegar Analysis 4) Chromatography ① Nitro 5) Spot tests, ② to ④ ⑥ charact. of gas fuel.		
Teaching days	26				
Periods Allotted	12				
Periods available	05				
Teaching	03	Practical's/ Tutorials	08	Tests	—

Month: January			Topic/ Unit	Sub-units Planned	
Teaching days	25		Fuels	1) classifi ⁿ of Fuels 2) Solid, liq & Gas 3) knocking, octane & Cetane number 4) Antiknock Compds 5) Biofuels 6) Stan ⁿ of kmng 7) Viscosity 8) Esti ⁿ of Antikn & Acetamide	
Periods Allotted	13				
Periods available	08				
Teaching	08	Practical's/ Tutorials			16
Month: February					
Teaching days	23		Fertilizer	1) Fertiliz ⁿ Defi ⁿ 2) classifi ⁿ N, P, K mixed & complex 3) Poll ⁿ / effects of Fertilizers 4) K_2SO_4 & $VS K_2I$ 5) spot-spotting Thiourea, Ethyl Acetate 6) Chromato ⁿ ②, ③	
Periods Allotted	11				
Periods available	12				
Teaching	12	Practical's/ Tutorials			20
Month: March					
Teaching days	25		BSc. III Practical Exam 28/2 to 4/3 - 11 - Examiner 5/3 to 11/3/19 Shahu college BSc. I Practical Exam 15/3 to 21/3/19	28/2 to 4/3 external Shahu college	
Periods Allotted	13				
Periods available	-				
Teaching	-	Practical's/ Tutorials			-
Month: April					
Teaching days	23		SVK theory Exams worked as External 56. Supervisor at mdhaveer college from 24/3 to 08/4 BSc. II Practical Exam 30/3 to 1/4	Exams worked as External 56. Supervisor at mdhaveer college from 24/3 to 08/4 BSc. II Practical Exam 30/3 to 1/4	
Periods Allotted	-				
Periods available	-				
Teaching	-	Practical's/ Tutorials			-

ANNUAL TEACHING PLAN

Academic Year: 20¹⁸..... - 20¹⁹.... Class: B.Sc. II Division:

Subject: Chemistry..... Paper Title: Paper No.:

			Topic/ Unit	Sub-units Planned
Month: June			—	—
Teaching days	14			
Periods Allotted	—			
Periods available	—			
Teaching	Practical's/ Tutorials	Tests		
—	—	—		
Month: July			—	1) Chemical kinetics for unequal conc. $K_2S_2O_8 + KF$ 2) organic spotting ①
Teaching days	25			
Periods Allotted	—			
Periods available	—			
Teaching	Practical's/ Tutorials	Tests		
—	08	—		
Month: August			—	1) Estimn of Acetone 2) Chemical kinetics for relative strength 3) viscosity 4) TLC 5) organic spotting No. ②, ③, ④
Teaching days	25			
Periods Allotted	—			
Periods available	—			
Teaching	Practical's/ Tutorials	Tests		
—	32	—		

Month: September			Topic/ Unit	Sub-units Planned
Teaching days		24		1) Organic Spitting No. ① to ④ 2) Gravimetric Estimn of Ba 3) Esti ^m of Estos 4) Prop ⁿ of Phthalimide
Periods Allotted		-		
Periods available		-		
Teaching	Practical's/ Tutorials	Tests		
-	36	-		
Month: October				
Teaching days		21		1) Semi micro analy- sis of mixture No. ① & ② 2) Prop ⁿ of tetramine (Cu ^{II}) Sulphate 3) Prop ⁿ of ferrous ammonium Sulphate
Periods Allotted		-		
Periods available		-		
Teaching	Practical's/ Tutorials	Tests		
-	28	-		
Month: November				
Teaching days		11	B.Sc. II ^A Practical Exam 28/10/18 Assessment VIII 28/10/18 to 17/11/18 B.Sc. I Paper Assessment.	
Periods Allotted		-		
Periods available		-		
Teaching	Practical's/ Tutorials	Tests		
-	-	-		
Month: December				
Teaching days		26		1) Hydrolysis of methyl acetate 2) Semi micro mixe- ①, ②, ③, ⑤, ⑥ 3) Prop ⁿ of Phthalimide 4) Prop ⁿ of Acetanilide 5) Viscosity 6) Conductometry
Periods Allotted		-		
Periods available		-		
Teaching	Practical's/ Tutorials	Tests		
-	32	-		

Month: January			Topic/ Unit	Sub-units Planned
Teaching days	Periods Allotted	Periods available		
25	—	—		① P _{app} of benzamide ② Conductometry ③ Alkalinity of Antacid tablet ④ P _{app} of Paracetamol ⑤ Gravimetry of Fe
Teaching	Practical's/ Tutorials	Tests		
—	32	—		
Month: February			Topic/ Unit	Sub-units Planned
Teaching days	Periods Allotted	Periods available		
26	—	—		① Semimicro mixture NO- ② Thin layer chromat. ③ organic spotting Used, salicylic acid, m&P nitroaniline
Teaching	Practical's/ Tutorials	Tests		
—	08	—		
Month: March			Topic/ Unit	Sub-units Planned
Teaching days	Periods Allotted	Periods available		
25	—	—	B.Sc. II Practical Exam 28/2 to 4/3 at Shri college from 5/3 to 11/3/19	
Teaching	Practical's/ Tutorials	Tests	B.Sc. I Practical Exam 15/3 to 22/3/19	
—	—	—		
Month: April			Topic/ Unit	Sub-units Planned
Teaching days	Periods Allotted	Periods available		
23	—	—	SUK theory Exams worked as External Sr. supervisor at Mahaveer college from 24/3 to 08/4	
Teaching	Practical's/ Tutorials	Tests	B.Sc. II Practical Exam 30/3 to 10/4	
—	—	—		

ANNUAL TEACHING PLAN

Academic Year: 20.18..... - 20.19..... Class: B.Sc III Division:

Subject: Chemistry..... Paper Title: Inorg. Chem. Part - Chem. Paper No.: I, XII.....

			Topic/Unit	Sub-units Planned
Month: June			Inorganic Polymers	1) Introduction to polymers 2) Basic concept and definitions
Teaching days	14			
Periods Allotted	02			
Periods available	01			
Teaching	Practical's/ Tutorials	Tests		
01	-	-		
Month: July			Inorganic polymers	1) Classifi ⁿ of polymer 2) Compare cond ⁿ Inorg. Poly. 3) Polymer backbone 4) Homoatomic Poly. 5) Phospho ⁿ & Fluoro ⁿ 6) % Purity of FAS 7) Prop ⁿ of Sodium cuprous thiosulphate Potassium tetracalcate ferriate
Teaching days	25			
Periods Allotted	04			
Periods available	04			
Teaching	Practical's/ Tutorials	Tests		
04	24	-		
Month: August			Inorganic Polymer metals, Semi con- ductors & superconductors	1) Heteroatomic Polymer as silicones & ... 2) Inorg ⁿ properties of metallic solids 3) Free eeg mot theory 4) % Purity of tetramine copper(II) sulphate 5) Prop ⁿ of $K_2[AlCl_4]$ Hexamine Ni(II)Cl ₂
Teaching days	25			
Periods Allotted	05			
Periods available	05			
Teaching	Practical's/ Tutorials	Tests		
05	24	-		

Month: September			Topic/Unit	Sub-units Planned
Teaching days	24		Metals, Semiconductors and Superconductors	1) classifi ⁿ of solids 2) Types, Appl ^s of semiconductors 3) % Purity of $K_2Cr_2O_7$, ZnO 4) Gravimetric Est ^m of Barium, Nickel
Periods Allotted	04			
Periods available	04			
Teaching	Practical's/ Tutorials	Tests		
04	30	—		
Month: October				
Teaching days	21		Metals, Semiconductors and Superconductors	1) Superconductors 2) Ceramic Superconductors: prep ⁿ & structures of mixed oxide 3) Appl ^s of superconductors 4) % of Mg in Talcum Powder 5) Acidity of milk
Periods Allotted	03			
Periods available	03			
Teaching	Practical's/ Tutorials	Tests		
03	24	—		
Month: November				
Teaching days	11		28/10/18 to 17/11/18 B.Sc. II Paper VII B.Sc. I Paper J.D. Supervisor Theory Exams	Diwali vacation CAP Assessment Assessment for SLK
Periods Allotted	—			
Periods available	—			
Teaching	Practical's/ Tutorials	Tests		
—	06	—		
Month: December				
Teaching days	26		B.Sc. II Paper IX Assessment B.Sc. I Paper Assessment	CAP Assessment
Periods Allotted	—			
Periods available	—			
Teaching	Practical's/ Tutorials	Tests		
—	30	—		

Month: January			Topic/ Unit	Sub-units Planned
Teaching days		25		1) Ion exchange Chromatography Mg^{2+} & Zn^{2+} 2) % Purity of boric acid 3) Potentiometer 4) Journal checking
Periods Allotted		—		
Periods available		—		
Teaching	Practical's/ Tutorials	Tests		
—	18	—		
Month: February				
Teaching days		23	Surface Chemistry	1) mg from Talcum powder Synthetic & Commercial 2) Gravimetry of Fe 3) Hexamine Preparation 4) Absorption & theory.
Periods Allotted		08		
Periods available		08		
Teaching	Practical's/ Tutorials	Tests		
08	24	—		
Month: March				
Teaching days		25	B.Sc III Practical Exam 28/2 to 4/3/19 worked as External Examiner at Shahu college B.Sc III Practical Exam from 5/3 to 11/3 B.Sc I Practical Exam 15/3 to 22/3/19	
Periods Allotted		—		
Periods available		—		
Teaching	Practical's/ Tutorials	Tests		
—	—	—		
Month: April				
Teaching days		23	SUR Theory Exams worked as External Sr supervisor at Mahaveer college from 24/3 to 08/04.	
Periods Allotted		—		
Periods available		—		
Teaching	Practical's/ Tutorials	Tests		
—	—	—		

ANNUAL TEACHING PLAN

Academic Year: 20...18... - 20...19... Class: M.Sc. Division: Non-Grant

Subject: Chemistry Paper Title: Analytical Chemistry Paper No.: 1044204

			Topic/ Unit	Sub-units Planned
Month: June			Errors and Sampling	1) Def'n of errors 2) Types of Errors 3) Theories based on Errors
Teaching days	24			
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
	—	—		
Month: July			Errors and Sampling	1) mean 2) median 3) coefficient of variance 4) Gaussian Curve
Teaching days	25			
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
		—		
Month: August			Errors and Sampling	1) Deviation from mean, median and Gaussian curve 2) Comparison of result student t & F test
Teaching days	25			
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
		—		

Month: September			Topic/ Unit	Sub-units Planned
Teaching days	24		Errors and Sampling	1) Least square method 2) Linear Regression 3) Sampling Introduction
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
Month: October			Topic/ Unit	Sub-units Planned
Teaching days	21		Errors and Sampling	1) Scope & types of sampling 2) Theory & Importance of sampling
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
Month: November			Topic/ Unit	Sub-units Planned
Teaching days	11		Errors and Sampling	1) Gravity settling chamber 2) Cold trapping 3) Distillation 4) Absorption 5) Adsorption
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
Month: December			Topic/ Unit	Sub-units Planned
Teaching days	26		NMR and mass Spectroscopy	1) Introduction 2) Nuclear spin States 3) Principle 4) magnetic and non-magnetic nuclei 5) Absorption signal
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		

Month: January		Topic/ Unit	Sub-units Planned
Teaching days	25	NMR and Mass Spectroscopy	1) Protonal frequency 2) chemical shift 3) delta & tau scale 4) shielding & deshielding of electrons 5) factors affecting chemical shift 6) Anisotropic effect
Periods Allotted	—		
Periods available			
Teaching	Practical's/ Tutorials		
Month: February			
Teaching days	23	NMR and Mass Spectroscopy	1) Spin-spin coupling 2) coupling constant 3) Integ ⁿ of NMR 4) Peak integr & app's 5) Problems on NMR 6) Introduction 7) Principle & theory of MASS
Periods Allotted	—		
Periods available			
Teaching	Practical's/ Tutorials		
Month: March			
Teaching days	25	NMR and Mass Spectroscopy	1) Fragmentation of mass 2) McLafferty Rearrangement, metastable ions 3) Nitrogen Rule 4) Types of different ions produced in MS Spectroscopy
Periods Allotted	—		
Periods available			
Teaching	Practical's/ Tutorials		
Month: April			
Teaching days	23	NMR and Mass Spectroscopy	1) Applications of mass 2) mass spectrum of alkane, alkenes, cycloalkane, cycloalkynes.
Periods Allotted	—		
Periods available			
Teaching	Practical's/ Tutorials		

TEXT BOOKS AND REFERENCE BOOKS (Paperwise)

(Give the list of prescribed text books/reference books/ Audio Visual aids and other Resource material consulted)

Class & Subject	Title of the books, journals, Periodicals & Magazines etc.	Author & Publications.
B.Sc. I Inorg. chem.	Principles of inorganic chemistry	Puri, Sharma and Kalia, Vallabh Publ'n
B.Sc. I Inorg. chem.	Textbook of Inorg. chem. Sem I Paper I	Naik, Vitthalakar, Madic Phadke Prakashan
B.Sc. II Inorg. chem.	Textbook of Inorg. chem. Sem II Paper I	Naik, Vitthalakar, Phadke Prakashan
B.Sc. III Inorg. chem.	Textbook of Inorg. chem. Sem III Paper I	Zambare, mane, Nizali Prakashan.
B.Sc. III Inorg. chem.	Concise Inorg. chem. Sem III Paper I	J.D. Lee ELBS

EXAMINATION RELATED WORK

A) Internal College Examination

Sr. No.	Date	Type of Exam (Unit Test/ Tutorials/ Terminals/Semester etc.)	Class	Subject	Period	Type of Work
1)		Home Assignment	B.Sc-II	Trusly		Examiner
2)	31/9 to 26/9	Theory exam Sem I	B.Sc-I	Trusly	15 days	Paper setter
3)	26/9	Internal exam	M.Sc.I	Anal.	01	Supervisor
4)	29/10 to 1/11	Theory exam Sem I	B.Sc-I	Trusly	04 days	Examiner
5)	4/11	Internal Exam	B.Sc-I	Trusly	10 days	Examiner
6)	25/10 to 31/10	Theory Exam Sem I	B.A. B.Com B.Sc-I	All	04 days	Supervisor
7)	1/12 to 5/12	Theory Exam Sem I p	B.Sc-I	Trusly	05 day	Paper setter
8)	8/12	Theory exam Makeup	B.Sc-I	Trusly	01 day	Examiner
9)	11/12	Theory Exam (Makeup)	M.Sc-I	Trusly	01 day	Examiner
10)	15/12	Internal Exam	B.Sc-I	Trusly	03 days	Examiner
11)	26/12	Home assignment	B.Sc-II	Trusly	08 days	Examiner
12)	1/13 to 8/13	Practical Exam	B.Sc-I	Trusly	09 days	Examiner
13)	20/13	Theory Exam	M.Sc.I	Trusly	15 days	Paper setter

B) University Examination related Work

Sr. No.	Date	Type of Exam (Unit Test/ Tutorials/ Terminals/Semester etc.)	Class	Subject	Period	Type of Work
1	8/10/18 to 11/10/18	M.Sc. I Practical Exam	M.Sc. I	Thry & Analy.	05 days	Supervisor
2	26/10/18 to 27/11/18	SUK Theory Exam	B.Sc. I Sem II Paper II	Inorg. Chem.	02 days	Examiner
3	30/11/18 to 29/12/18	SUK Semester theory exam	BA/Bcom	All	07 day	Jr. Supervisor
4	13/1/19 to 16/3/19	B.Sc. III Practical Exam	B.Sc. III	Inorg. Chem.	10 days	Supervisor
5	21/3/19 to 24/3/19	B.Sc. III Practical Exam	B.Sc. III	Inorg. Chem.	04 days	External Examiner Gov. Punit College.
7	26/3/19 to 5/3/19	SUK Theory Exam	All	All	11 days	Jr. Supervisor
8	7/4/19 to 13/4/19	B.Sc. II Practical Exam	B.Sc. II	Inorg. Chem.	07 days	External Examiner Shrihari college
9	14/4/19 to 18/4/19	B.Sc. III Practical Exam	B.Sc. III	Inorg. Chem.	04 Days	Supervisor
10	22/4/19	SUK Theory Exam	B.Sc. I Sem I Paper II	Thry & Phys-Chem	02 days	Examiner

d) Professional Development related activities

Title of the Conference Seminar/Workshop etc.	Level (International/National /State /University	Date	Organizer & Place
1) Impulses Impulses on various aspects of Indian Freedom movement.	International interdisciplinary Seminar	1 st March 19	Dept. of History & Political Science Vck.
2) e-Content development for Enhancing Pedagogical skills	National	08-19 th March 19	IQAAC Dept & Dept. of Computer science Vck.
3) Development of Quality culture in HEI'S	National seminar	15 th March 19	IQAAC & NAAC Dept. Vck.
4) Intellectual Property rights & Drafting Patents	University	19 th Feb 2019	IQAAC Dept Vck.

RESEARCH AND ACADEMIC CONTRIBUTIONS

1) Research papers Published :

1) Rahul A. Kabeel, Sarita D. Shinde, "Issues in designing of the syllabus for effective courses in Higher Education: Communication" Research Journal of International Multidisciplinary E-Research Journal, ISSN-2348-7143. Issue. 172, 2019, 7-9 (IJIF=6261)

RESEARCH AND ACADEMIC CONTRIBUTIONS

5) Training courses Completed :

U "Online Refresher course on Higher Education in chemistry" by swayam platform.

6) Worked as Chairperson / Resource Person for Conference / Seminar / Workshop

AWARDS / CERTIFICATES

Sr. No.	

[Handwritten Signature]

Signature of the Teacher

CERTIFICATE

This is to certify that the details filled in the Academic diary are found correct.

Date : 02/05/2019



[Handwritten Signature]

Principal
PRINCIPAL
Vivekanand College
Kolhapur.