

Estd: 2001

Shri.Angarsiddha Shikshan Prasarak Mandal's

Baburao Patil College of Arts and Science Angar



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NAAC accredited: 'B' Grade with CGPA 2.18

ISO 9001: 2015 Registered

Affiliated to: **Punyashlok Ahilyadevi Holkar Solapur University, Solapur.**

Principal -Dr.C.S. Suryawanshi M.Sc. Ph.D

2.3.1 Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences using ICT tools

Slow and Advance Learner

Baburao Patil College of Arts & Science, Angar
Slow Learner & Fast Learner Activity

Slow and Fast Learner Question Paper 2018-19

B.Sc.-I Chemistry

Objective question of organic chemistry

20M

1. The intermediate species obtained by the homolytic fission of a covalent bond are
 - a. Carbocations
 - b. Carbanions
 - c. Free radical
 - d. Carbenes
2. Which is not an electrophile?
 - a. AlCl_3
 - b. FeCl_3
 - c. NH_3
3. Electrophiles are
 - a. Electron loving species
 - b. Nucleus loving species



- c. None of these
- d. Nucleus hating species

4. Nucleophiles are.....

- a. Electron loving
- b. Nucleus loving
- c. Nucleus hating
- d. None of these

5. Heterolytic fission of an organic covalent bond gives.....

- a. Free radicals
- b. Only cations
- c. Only anions
- d. Both cations and anions

6. Dehydration of alcohol is an example of.....

- a. Substitution reaction
- b. Addition reaction
- c. Elimination reaction
- d. Rearrangement reaction

7. Carbocations are.....

- a. Electron deficient
- b. Electron rich
- c. Neutral



- d. None of these
8. A neutral divalent carbon intermediate produced by the removal of two atoms is called.....
- a) Free radical
 - b) Carbanions
 - c) Carbocation
 - d) Carbene
9. Which of the following is an optically active?
- a) 2-chlorobutane
 - b) Butane
 - c) Propanoic acid
 - d) 1-chlorobutane
10. Plane polarised light is used for analysis of.....
- a) Optical isomers
 - b) Geometrical isomers
 - c) Conformational isomers
 - d) None of these
11. Chiral molecules are those which are those which are having.....
- a. Non- superimposable mirror images
 - b. Superimposable mirror images
 - c. Caabc structure
 - d. None of these



12. Which is a chiral molecule.....

- a. CH_3Cl
- b. CH_2Cl_2
- c. CHBr_3
- d. CHClBrI

13. Maleic acid and fumaric acid are

- a. Optical isomers
- b. Geometrical isomers
- c. Conformational isomers
- d. Enantiomers
- e. None of these

14. Mesotartaric acid is.....

- a. Optically active
- b. Optically inactive
- c. Racemic mixture
- d. Geometrical isomers

15. Mesotartaric acid is inactive due to.....

- a. External compensation
- b. Internal compensation
- c. As its racemic mixture
- d. None of these



16. Wurtz reaction is suitable for the preparation of hydrocarbon containing
- Even number of carbon atoms
 - Cyclic structure
 - Odd number of carbon atoms
 - None of these
17. Electrolysis of sodium salt of butanoic acid gives.....
- Propane
 - Butane
 - Methane
 - Ethane
18. The catalyst used in Friedel-Crafts reaction is.....
- Ni
 - Pt
 - AlCl_3
 - None of these
19. Benzene reacts with methyl chloride in the presence of anhydrous aluminium chloride to give.....
- Toluene
 - Ethyl benzene
 - Isopropylbenzene
 - Chlorobenzene



Student List

Sr.No	Student Name
1	ADLINGE HARI MAHADEV
2	ALADAR PRADIP VINAYAK
3	BAGWAN AARBAJ RAJU
4	BANSODE ASHA JALINDAR
5	CHAVAN KIRTI PARMESHWAR
6	DOKE GEETANJALI POPAT
7	GUND DIPALI ANIL
8	GORE AJIT ABHIMAN
9	GAIKWAD SURAJ DIGAMBAR
10	GAIKWAD PANKAJ TANAJI
11	JADHAV RUTUJA SATISH
12	KADAM AJIT RAMCHANDRA
13	KAMBALE NAGESH BHARAT
14	KAMBLE DIPA VIJAY
15	KAMBLE SANTOSH TUKARAM
16	KARANDE RUSHIKESH ANKUSH
17	KUMBHAR SONALI BALBHIM
18	MHETRE DEVANAND NAGNATH
19	MULANI KAJAL ISLAM
20	LONDHE SWAPNIL SHRIMANT
21	NAGANE RUSHIKESH HANUMANT
22	NAIKNAWARE PORNIMA BALASAHEB



23	RAUT YASHWANT SHARAD
24	SABALE PRATIBHA DHANAJI
25	SABALE UJJWALA TUKARAM
26	SALUNKHE RAVIKANT BHARAT

Time Table 2018-19

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
3.00 to 3.48	Org.Chem. SPS	Physical Chem. VNK	Inorganic Chem. MVG	Analytical Chem. TBM	Org.Chem SPS	Physical Chem. SGG

Mark List 2018-19

Sr.No	Student Name	Marks Obtained out of 20	Result
1	ADLINGE HARI MAHADEV	15	Fast Learner
2	ALADAR PRADIP VINAYAK	13	Fast Learner
3	BAGWAN AARBAJ RAJU	10	Slow Learner
4	BANSODE ASHA JALINDAR	06	Slow Learner
5	CHAVAN KIRTI PARMESHWAR	10	Slow Learner
6	DOKE GEETANJALI POPAT	11	Fast Learner
7	GUND DIPALI ANIL	12	Fast Learner
8	GORE AJIT ABHIMAN	09	Slow Learner
9	GAIKWAD SURAJ DIGAMBAR	15	Fast Learner
10	GAIKWAD PANKAJ TANAJI	12	Fast Learner



11	JADHAV RUTUJA SATISH	10	Slow Learner
12	KADAM AJIT RAMCHANDRA	11	Slow Learner
13	KAMBALE NAGESH BHARAT	13	Fast Learner
14	KAMBLE DIPA VIJAY	07	Slow Learner
15	KAMBLE SANTOSH TUKARAM	12	Fast Learner
16	KARANDE RUSHIKESH ANKUSH	05	Slow Learner
17	KUMBHAR SONALI BALBHIM	07	Slow Learner
18	MHETRE DEVANAND NAGNATH	08	Slow Learner
19	MULANI KAJAL ISLAM	09	Slow Learner
20	LONDHE SWAPNIL SHRIMANT	13	Fast Learner
21	NAGANE RUSHIKESH HANUMANT	12	Fast Learner
22	NAIKNAWARE PORNIMA BALASAHEB	11	Fast Learner
23	RAUT YASHWANT SHARAD	13	Fast Learner
24	SABALE PRATIBHA DHANAJI	12	Fast Learner
25	SABALE UJJWALA TUKARAM	05	Slow Learner
26	SALUNKHE RAVIKANT BHARAT	10	Fast Learner

Result: Slow Learner total students:12

Fast Learner total Students: 14



Baburao Patil College of Arts and Science Angar
Tal-Mohol Dist-Solapur

Time Table 2018-2019

IIT-JAM Training Course (Chemistry)

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12:30 to 01:30 PM	MVG	MVG	SGG	SGG	SPS	SPS
01:30 to 02:30 PM	TBM	TBM	TBM	MVG	VNK	VNK

TBM: Dr Tukaram B Mhamane

MVG: Mr Mahadev V Gaikwad

VNK: Dr Vishal N Kadam

SGG: Mr Shivshankar G Gaikwad

SPS: Dr Sachin P Shirame



B.Sc.III Fast Learner IIT JAM Training 2018-2019

Students List

Sr.No.	Students Name
1	AWATADE RUTUJA MAHADEV
2	BHANGE AMRUTA ANKUSH
3	MUSMUSE SUJATA NAGNATH
4	PATIL SNEHA UTTARESHWAR
5	SALUNKHE MADHURI BHARAT
6	SARAVADE AKASH SHIVAJI
7	TINGARE VARSHA TANAJI



TBM/VNK/SPS/MRG

Subject: Chemistry

Name of the Teachers

Remarks

BABURAO PATIL COLLEGE OF ARTS AND SCIENCE ANGAR																										
STUDENTS ATTENDANCE REGISTER																										
ACADEMIC YEAR - 2018-19																										
Name of the Teachers: MVG/TBM/SPS/VNK																										
Sl. No.	Students Name	01/09	02/09	03/09	04/09	05/09	06/09	07/09	08/09	09/09	10/09	11/09	12/09	13/09	14/09	15/09	16/09	17/09	18/09	19/09	20/09	21/09	22/09	23/09	24/09	25/09
1)	Awarade. R.M	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA	RMA
2)	ghange. A. A	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI	AI
3)	Musumbe. S.N	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm	Gm
4)	Patil. S. U	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils	Patils
5)	Salunkhe. M.B	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb	Smb
6)	Saravade. A.S	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
7)	Tingare. V.T	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ	VJ
Remarks																										

IIT JAM-2019 Syllabus

ORGANIC CHEMISTRY:

Basic Concepts in Organic Chemistry and Stereochemistry:

Electronic effects (resonance, inductive, hyper conjugation) and steric effects and its applications (acid/base property); optical isomerism in compounds with and without any stereocenters (allenes, biphenyls); conformation of acyclic systems (substituted ethane/n-propane/n-butane) and cyclic systems (mono- and di-substituted cyclohexanes).

Organic Reaction Mechanism and Synthetic Applications:

Chemistry of reactive intermediates (carbocations, carbanions, free radicals, carbenes, nitrenes, benzyne etc.); Hofmann-Curtius-Lossen rearrangement, Wolff rearrangement, Simmons-Smith



reaction, Reimer-Tiemann reaction, Michael reaction, Darzens reaction, Wittig reaction and McMurry reaction; Pinacol-pinacolone, Favorskii, benzylic acid rearrangement, dienone-phenol rearrangement, Baeyer-Villiger reaction; oxidation and reduction reactions in organic chemistry; organometallic reagents in organic synthesis (Grignard and organocopper); Diels-Alder, electrocyclic and sigma tropic reactions; functional group inter-conversions and structural problems using chemical reactions.

Qualitative Organic Analysis:

Identification of functional groups by chemical tests; elementary UV, IR and ^1H NMR spectroscopic techniques as tools for structural elucidation.

Natural Products Chemistry:

Chemistry of alkaloids, steroids, terpenes, carbohydrates, amino acids, peptides and nucleic acids.

Aromatic and Heterocyclic Chemistry:

Monocyclic, bicyclic and tricyclic aromatic hydrocarbons, and monocyclic compounds with one hetero atom: synthesis, reactivity and properties.

INORGANIC CHEMISTRY:

Periodic Table:

Periodic classification of elements and periodicity in properties; general methods of isolation and purification of elements.

Chemical Bonding and Shapes of Compounds:

Types of bonding; VSEPR theory and shapes of molecules; hybridization; dipole moment; ionic solids; structure of NaCl, CsCl, diamond and graphite; lattice energy.

Main Group Elements (s and p blocks):

General concepts on group relationships and gradation in properties; structure of electron deficient compounds involving main group elements.

Transition Metals (d block):

Characteristics of 3d elements; oxide, hydroxide and salts of first row metals; coordination complexes: structure, isomerism, reaction mechanism and electronic spectra; VB, MO and Crystal Field theoretical approaches for structure, color and magnetic properties of metal complexes; organometallic compounds having ligands with back bonding capabilities such as metal carbonyls, carbenes, nitrosyls and metallocenes; homogenous catalysis.

Bioinorganic Chemistry:



Essentials and trace elements of life; basic reactions in the biological systems and the role of metal ions, especially Fe^{2+} , Fe^{3+} , Cu^{2+} and Zn^{2+} ; structure and function of hemoglobin and myoglobin and carbonic anhydrase.

Instrumental Methods of Analysis:

Basic principles; instrumentations and simple applications of conductometry, potentiometry and UV-vis spectrophotometry; analysis of water, air and soil samples.

Analytical Chemistry:

Principles of qualitative and quantitative analysis; acid-base, oxidation-reduction and complexometric titrations using EDTA; precipitation reactions; use of indicators; use of organic reagents in inorganic analysis; radioactivity; nuclear reactions; applications of isotopes.



Study Material

Photos



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IIT-JAM
Chemistry

8. Organic Rxn Mechanism
+ Synthetic Applications
9. Qualitative, Heterocyclic
+ Natural Product Chemistry
10. Periodic Table +
Chemical Bonding

III

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Slow and Fast Learner Question Paper 2019-20

Q.1. Choose the correct alternative and rewrite the sentence.
20marks

1. The unit of Cell constant is.....
a) S b) $S\text{ cm}^{-1}$
c) cm^{-1} d) None of these
2. To measure conductance, alwayssource is preferred.
a) DC b) AC c) AC and DC both
d) nearly 95% samples are used
3. Conductancewith increase in concentration.
a) Decreases b) Increases c) metal d) None of these.
4. The function of AlCl_3 in friedel-crafts reaction is.....
a. To produce water
b. To absorb hydrochloric acid
c. To absorb water
d. None of these
5.is purely constitutive property.
a. Molecular mass
b. Optical activity



- c. Radioactivity
- d. Atomic volume
- 6. Molecular volume of a liquid when its surface tension is unity is known as.....
 - a. Viscosity
 - b. Fluidity
 - c. Parachor
 - d. Coefficient of viscosity
- 7. The reciprocal of viscosity is called.....
 - a. Surface tension
 - b. Frictional resistance
 - c. Fluidity
 - d. None of these
- 8. Radioactivity is a----- property
 - a. Additive
 - b. Constitutive
 - c. Additive and constitutive
 - d. None of these
- 9. The presence of carbon in an organic molecule is detected by
 - a. Combustion method
 - b. Kjeldahls method
 - c. Carius method
 - d. None of these
- 10. The fusion of sodium with aniline gives mainly.....
 - a. NaX
 - b. NaCNS
 - c. NaCN
 - d. None of these
- 11. Carbon and hydrogen are estimated by.....



- a. Liebig's method
- b. Carius method
- c. Kjeldahl's method
- d. None of these

12. Halogen can be estimated by.....

- a. Kjeldahl's method
- b. Combustion method
- c. Carius method
- d. None of these

13. The proteins of milk consist mainly.....

- a. Casein
- b. Fat
- c. Glucose
- d. Vitamin

14. The % of water in cow milk is.....

- a. 10.5
- b. 50.4
- c. 70.3
- d. 86.4

15. Metallurgy is divided into.....types

- a. Two
- b. Three
- c. Five
- d. Four

16.is impure source of metals

- a. Slag
- b. Flux
- c. Ore



d. Mineral

17. A neutral divalent carbon intermediate produced by the removal of two atoms is called.....

- a) Free radical
- b) Carbanions
- c) Carbocation
- d) Carbene

18. Which of the following is an optically active?

- a) 2-chlorobutane
- b) Butane
- c) Propanoic acid
- d) 1-chlorobutane

19. Plane polarised light is used for analysis of.....

- a) Optical isomers
- b) Geometrical isomers
- c) Conformational isomers
- d) None of these

Student List of Slow and Fast Learner

S.No.	Students Name
1	GODASE KESHAV SUDHAKAR
2	MAHAMUNI SHUBHAM KRUSHNAKANT
3	MANE JITESH JAYKUMAR
4	MOHITE AKASH SANTOSH



5	PAWAR ANIKET RAMCHANDRA
6	SHINDE SHUBHANGI GORAKH
7	VASEKAR SWAPNIL BALU
8	WAGHMODE SHRIKANT BIRUDEV
9	THITE ANIKET DINKAR
10	VASEKAR SWAPNIL BALU
11	VHANAMANE LATIKA SURESH
12	WAGHMODE SHRIKANT BIRUDEV
13	MOTE PRAGATI DHANAJI
14	WAGHMODE SAGAR GAJENDRA
15	UNHALE RUSHIKESH ANKUSH
16	SATHE RUTURAJ SHAILESH
17	BABAR GANESH TUKARAM
18	BAGWAN NIHAL RABBESALAM
19	BHANGE RATNASHRI SIDDHESHWAR
20	CHAVAN MADHURI BHAUSAHEB
21	CHAVAN SANDESH MASUDEV
22	DALAVE SHANTINATH PARMESHWAR
23	DALAVE VIJAY SAMBHAJI
24	FADAKE SACHIN SADASHIV
25	GUND SHUBHAM SHIVAJI



Time Table 2019-20

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
3.00 to 3.48	Org.Chem. SPS	Physical Chem. VNK	Inorganic Chem. MVG	Analytical Chem. TBM	Org.Chem SPS	Physical Chem. SGG

Mark List: 2019-20

S.No.	Students Name	Marks obtained out of 20	Slow Learner/ Fast Learner
1	GODASE KESHAV SUDHAKAR	08	Slow Learner
2	MAHAMUNI SHUBHAM KRUSHNAKANT	07	Slow Learner
3	MANE JITESH JAYKUMAR	10	Slow Learner
4	MOHITE AKASH SANTOSH	11	Fast Learner
5	PAWAR ANIKET RAMCHANDRA	12	Fast Learner
6	SHINDE SHUBHANGI GORAKH	13	Fast Learner
7	VASEKAR SWAPNIL BALU	07	Slow Learner
8	WAGHMODE SHRIKANT BIRUDEV	06	Slow Learner
9	THITE ANIKET DINKAR	10	Fast Learner
10	VASEKAR SWAPNIL BALU	05	Slow Learner
11	VHANAMANE LATIKA SURESH	08	Slow Learner
12	WAGHMODE SHRIKANT BIRUDEV	04	Slow Learner



13	MOTE PRAGATI DHANAJI	16	Fast Learner
14	WAGHMODE SAGAR GAJENDRA	15	Fast Learner
15	UNHALE RUSHIKESH ANKUSH	16	Fast Learner
16	SATHE RUTURAJ SHAILESH	17	Fast Learner
17	BABAR GANESH TUKARAM	06	Slow Learner
18	BAGWAN NIHAL RABBESALAM	09	Slow Learner
19	BHANGE RATNASHRI SIDDHESHWAR	10	Fast Learner
20	CHAVAN MADHURI BHAUSAHEB	11	Fast Learner
21	CHAVAN SANDESH MASUDEV	12	Fast Learner
22	DALAVE SHANTINATH PARMESHWAR	14	Fast Learner
23	DALAVE VIJAY SAMBHAJI	17	Fast Learner
24	FADAKE SACHIN SADASHIV	16	Fast Learner
25	GUND SHUBHAM SHIVAJI	15	Fast Learner

Result: Slow Learner total students: 10

Fast Learner total Students: 15



IIT-JAM Training Course (Chemistry) Fast Learner Students

Time Table 2019-2020

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12:30 to 01:30 PM	MVG	MVG	SGG	SGG	SPS	SPS
01:30 to 02:30 PM	TBM	TBM	TBM	MVG	VNK	VNK

TBM: Dr Tukaram B Mhamane

MVG: Mr Mahadev V Gaikwad

VNK: Dr Vishal N Kadam

SGG: Mr Shivshankar G Gaikwad

SPS: Dr Sachin P Shirame



B.Sc.III Fast Learner IIT JAM Training 2019-2020

Students List

Sr.No.	Students Name
1	BABAR SONALI ARUN
2	HONMANE PRAMILA SHIVAJI
3	KANADE AISHVARYA ASHOK
4	KARANDE ONKAR VIJAYKUMAR
5	MULANI SUMAIYYA RASUL
6	PAWAR PRATIKSHA BALU
7	URANE KRUSHNA NAMDEV



[illegible]

BABURAO PATIL COLLEGE OF ARTS AND SCIENCE ANGAR

STUDENTS ATTENDANCE REGISTER

ACADEMIC YEAR 2019-20

Class BSc - III

Month September - 2019

Subject Chemistry

Name of the Teachers

TBM / SPS / VNK / MVG

Sl No	Students Name	01/09	02/09	03/09	04/09	05/09	06/09	07/09	08/09	09/09	10/09	11/09	12/09	13/09	14/09	15/09	16/09	17/09	18/09	19/09	20/09	21/09	22/09	23/09	24/09	25/09	Total
1)	Babbar S. A	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	-	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	-	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	S.A Babbar	
2)	Honmane P. S.	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	
3)	Kanade A. A.	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	
4)	Karande O. V.	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	-	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	
5)	Mulani S. R.	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	
6)	Pawar P. B.	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	
7)	Ugare K. N.	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	Ugar	



BABURAO PATIL COLLEGE OF ARTS AND SCIENCE ANGAR

STUDENTS ATTENDANCE REGISTER

ACADEMIC YEAR 2019-20

Class BSc - III

Month September - 2019

Subject Chemistry

Name of the Teachers TBM / SP3 / VNK / MVG

Sl. No.	Students Name	01/09	02/09	03/09	04/09	05/09	06/09	07/09	08/09	09/09	10/09	11/09	12/09	13/09	14/09	15/09	16/09	17/09	18/09	19/09	20/09	21/09	22/09	23/09	24/09	25/09	Total
1)	Babbar S. A.	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	-	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	-	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	S.A. Babbar	
2)	Honmane P. S.	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	
3)	Kanade A. A.	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	Khanda	
4)	Kazande O. V.	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	-	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	KOV	
5)	Mulani S. R.	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	MR	
6)	Pawar P. B.	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	Pawar	
7)	Uzane K. N.	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	Uzane	



IIT JAM Syllabus 2020 Detailed Chemistry

ORGANIC CHEMISTRY:

Basic Concepts in Organic Chemistry and Stereochemistry:

Electronic effects (resonance, inductive, hyper conjugation) and steric effects and its applications (acid/base property); optical isomerism in compounds with and without any stereocenters (allenes, biphenyls); conformation of acyclic systems (substituted ethane/n-propane/n-butane) and cyclic systems (mono- and di-substituted cyclohexanes).

Organic Reaction Mechanism and Synthetic Applications:

Chemistry of reactive intermediates (carbocations, carbanions, free radicals, carbenes, nitrenes, benzyne etc.); Hofmann-Curtius-Lossen rearrangement, Wolff rearrangement, Simmons-Smith reaction, Reimer-Tiemann reaction, Michael reaction, Darzens reaction, Wittig reaction and McMurry reaction; Pinacol-pinacolone, Favorskii, benzylic acid rearrangement, dienone-phenol rearrangement, Baeyer-Villiger reaction; oxidation and reduction reactions in organic chemistry; organometallic reagents in organic synthesis (Grignard and organocopper); Diels-Alder, electrocyclic and sigma tropic reactions; functional group inter-conversions and structural problems using chemical reactions.

Qualitative Organic Analysis:

Identification of functional groups by chemical tests; elementary UV, IR and ^1H NMR spectroscopic techniques as tools for structural elucidation.

Natural Products Chemistry:

Chemistry of alkaloids, steroids, terpenes, carbohydrates, amino acids, peptides and nucleic acids.

Aromatic and Heterocyclic Chemistry:

Monocyclic, bicyclic and tricyclic aromatic hydrocarbons, and monocyclic compounds with one hetero atom: synthesis, reactivity and properties.

INORGANIC CHEMISTRY:

Periodic Table:

Periodic classification of elements and periodicity in properties; general methods of isolation and purification of elements.

Chemical Bonding and Shapes of Compounds:

Types of bonding; VSEPR theory and shapes of molecules; hybridization; dipole moment; ionic solids; structure of NaCl, CsCl, diamond and graphite; lattice energy.



Main Group Elements (s and p blocks):

General concepts on group relationships and gradation in properties; structure of electron deficient compounds involving main group elements.

Transition Metals (d block):

Characteristics of 3d elements; oxide, hydroxide and salts of first row metals; coordination complexes: structure, isomerism, reaction mechanism and electronic spectra; VB, MO and Crystal Field theoretical approaches for structure, color and magnetic properties of metal complexes; organometallic compounds having ligands with back bonding capabilities such as metal carbonyls, carbenes, nitrosyls and metallocenes; homogenous catalysis.

Bioinorganic Chemistry:

Essentials and trace elements of life; basic reactions in the biological systems and the role of metal ions, especially Fe^{2+} , Fe^{3+} , Cu^{2+} and Zn^{2+} ; structure and function of hemoglobin and myoglobin and carbonic anhydrase.

Instrumental Methods of Analysis:

Basic principles; instrumentations and simple applications of conductometry, potentiometry and UV-vis spectrophotometry; analysis of water, air and soil samples.

Analytical Chemistry:

Principles of qualitative and quantitative analysis; acid-base, oxidation-reduction and complexometric titrations using EDTA; precipitation reactions; use of indicators; use of organic reagents in inorganic analysis; radioactivity; nuclear reactions; applications of isotopes.



Material Photos



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IIT-JAM
Chemistry

8. Organic Rxn Mechanism
+ Synthetic Applications
9. Qualitative, Heterocyclic
+ Natural Product Chemistry
10. Periodic Table +
Chemical Bonding

III

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Rajasthan, 324005

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9.2 IDENTIFICATION OF FUNCTIONAL GROUPS BY CHEMICAL TESTS

Qualitative Estimation

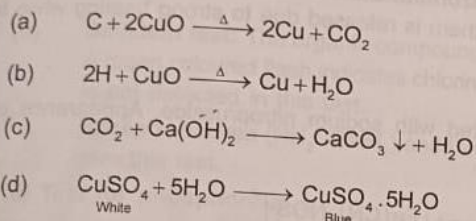
1. Introduction

Qualitative estimation is used in identifying elements in a compound. While judging the properties of a compound, it is necessary to find elements constituting it. Organic compounds contain mainly C and H; in addition to these they may contain O, N, S, halogens and P.

2. Detection of Elements

Detection of C and H

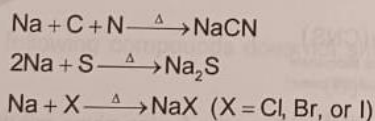
C and H are detected by heating the compound with cupric oxide (CuO) in a dry test tube. They are oxidized to CO₂ and H₂O respectively. CO₂ turns lime water milky and H₂O turns anhydrous CuSO₄ blue.



Preparing Sodium Fusion Extract

- Most of the organic compounds are covalent. So, it is not possible to detect elements in it due to a strong covalent bond. Therefore, it is necessary to convert them into ionic forms which can split easily in a polar medium.
- Sodium (Na) being strongly electropositive is used in this process by preparing sodium fusion extract.
- While preparing sodium fusion extract, the organic compound is strongly heated with clean sodium metal in a test tube fusing it with the sample.

Following reactions occur:



C, N, S and X come from organic compound.

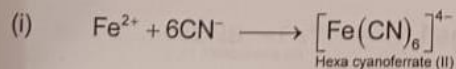
- The fused sample is plunged into water, and a few tests are performed on the solution to identify elements in it.

Lassaigne's Test

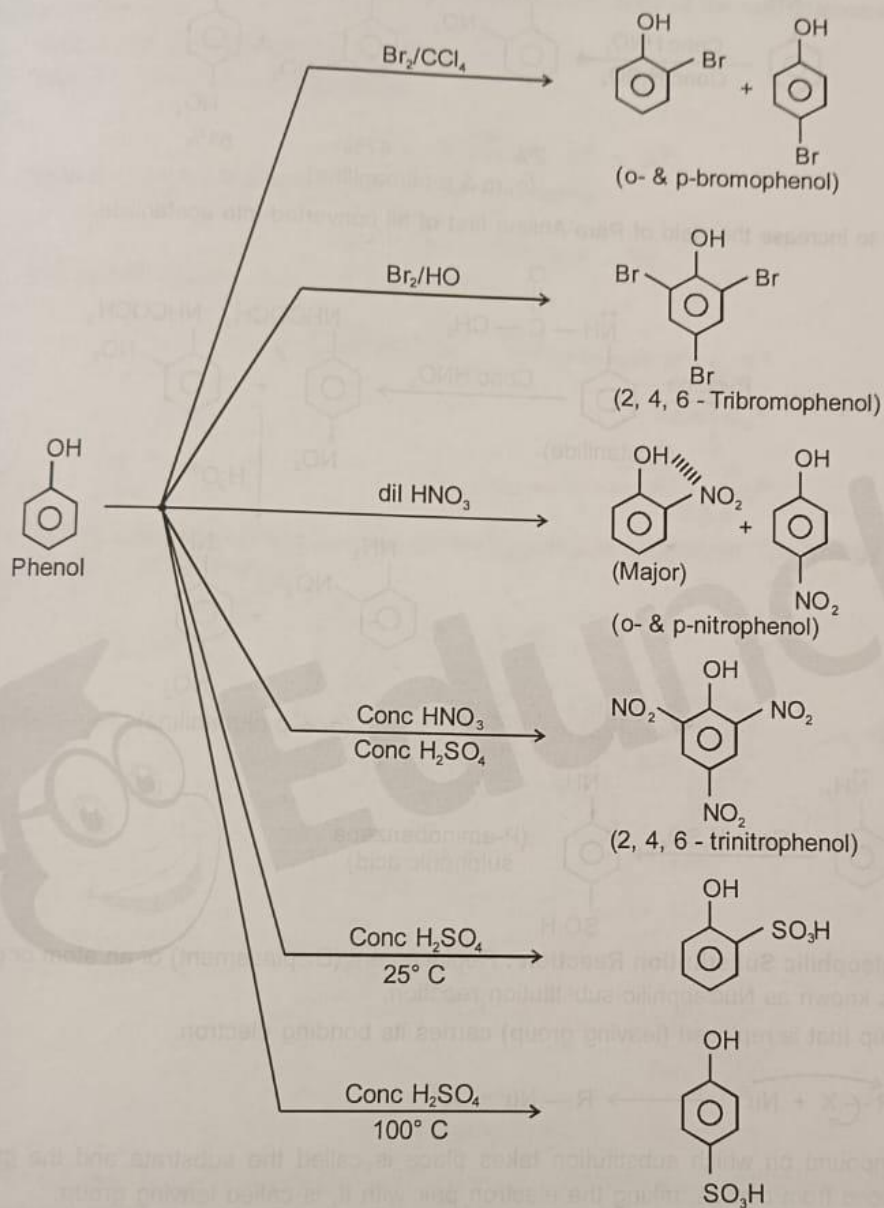
N, S, halogens and phosphorous present in organic compound is detected by Lassaigne's test, or preparing sodium fusion extract.

(a) Test for nitrogen :

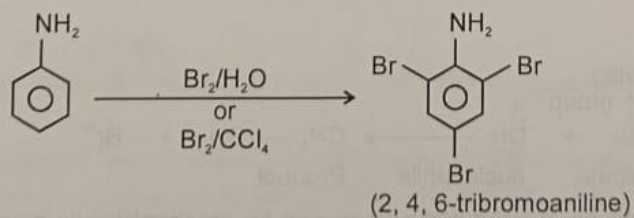
The sodium fusion extract is boiled with FeSO₄ and then acidified with Concentrated H₂SO₄. The appearance of Prussian blue colour confirms the presence of N. The following reaction occurs :



Aromatic Electrophilic Substitution in Phenol :



Aromatic Electrophilic Substitution in Aniline :



Slow and Fast Learner Question Paper 2020-21

- 1) A large increase in the rate of reaction for a rise in temperature is due to
 - a) increase in the number of collision.
 - b) increase in the number of activated molecule.
 - c) lowering of activation energy.
 - d) shortening of mean free path
- 2) Rate of reaction.....
 - a) increases with increase in temperature.
 - b) decreases with increase in temperature.
 - c) independent on temperature.
 - d) independent of concentration.
- 3) The rate constant of a reaction depend on.....
 - a) temperature
 - b) initial concentration of reactants
 - c) time of reaction
 - d) extent of the reaction
- 4) the velocity constant of a reaction is given by the expression..... $\text{Rate} = K [A]^2 [B]$.
which of the following statement is false ?
 - a) the reaction is of first order with respect to B.
 - b) the reaction is of second order with respect to A.
 - c) the reaction is of first order, overall
 - d) the reaction is of third order, overall
- 5) if the rate expression for a reaction is $(dx/dt) = k A^{1/2} B^{3/2}$, the overall order of the reaction is.....
 - a) $3/2$
 - b) $1/2$
 - c) 2
 - d) 3
- 6) In reaction : $2A + B \longrightarrow C + D$ the molecularity of reaction is.....



- a) 2 b) 0 c) 3 d) 1

7) Arrhenius equation may be return as.....

a) $\frac{d \ln k}{dT} = \frac{E_a}{RT}$ b) $\frac{d \ln k}{dT} = -\frac{E_a}{RT}$

c) $\frac{d \ln k}{dT} = \frac{E_a}{RT^2}$ d) $\frac{d \ln k}{dT} = \frac{E_a}{RT}$

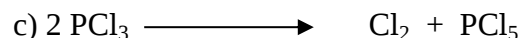
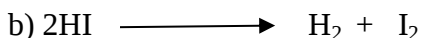
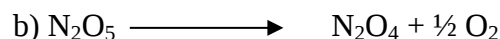
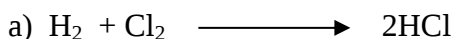
8) The temperature coefficient of the the most of the reaction lies between

- a) 1 and 2 b) 2 and 3 c) 3 and 4 d) 2 and 4

9) For the chemical change $A \longrightarrow B$, it is found that the rate of reaction Doubles when the concentration is increased to 4 times. The order of a for this reaction is

- a) half b) 1 c) 2 d) 0

10) which of the following is Unimolecular reaction ?



11) For a reaction $A + B \longrightarrow \text{Product}$. it is found that the rate of the reaction is equal to $k[A]^1 [B]^m$. Then the order of the reaction is :

- a) $1 - m$ b) $1 + m$ c) $1 / m$ d) $1m$

12) The minimum energy acquired by molecule to respect is called.....

- a) Kinetic energy b) nuclear energy
c) activation energy D) potential energy

13) The temperature coefficient of a reaction is called

- a) specific reaction rate at $25^0 C$.
b) rate of the reaction at $100^0 C$.



- c) ratio of the rate constant at temperature 35°C and 25°C
 d) ratio of rate constant at two temperatures differing by 1°
- 14) An increase in temperature by 10°C generally increase the rate of a reaction by
- a) 10 times b) 2 times c) 100 times d) 9 times
- 15) On increasing the temperature, the rate of reaction increases. this increase is mainly due to
- a) increase in the number of Collision taking place in the system.
 b) decrease in the energy of activation.
 c) increase in collision frequency.
 d) increase in the number of effective collision.
- 16) which of these do not affect the rate of a reaction?
- a) temperature b) concentration of reactants
 c) nature of reactants. d) molecularity of reaction.
- 17) if E_f and E_r are the activation energy of forward and reverse reaction and the reaction is known exothermic then:
- a) $E_f > E_r$ b) $E_f < E_r$ c) $E_f = E_r$
 d) no relation can be given between E_f and E_r as data are not sufficient

- 18) The velocity constant of a reaction is given by the expression

$$\text{Rate} = k [\text{A}] \times [\text{B}]$$

which of the following statement is false?



- a) the reaction is of first order with respect to B
- b) the reaction is of second order with respect to A
- c) the reaction is of third order overall.
- d) the reaction is of second order overall.

19) if the rate expression for the reaction is $\frac{dx}{dt} = k AB^{3/2}$, then the overall order of the reaction is

- a) 3/2 b) 5/2 c) 2 d) 3

20) A zero order reaction is the one in which.....

- a) reactants do not react.
- b) one of the reactant is in large excess.
- c) rate is affected by concentration.
- d) concentration of reactants do not change with time.

Sr.No.	Students Name
1	ADLINGE MANISHA DHANAJI
2	BHISE DIPALI DHULA
3	BHOSALE PRAJYOT SHRIMANT
4	CHAVAN AKSHAY GIRIDHAR
5	CHAVAN ANIKET NAVNATH
6	CHAVAN GANESH BALASAHEB
7	CHAVARE SAMADHAN MARUTI
8	DALAVE KRUSHNATH POPAT
9	UDAVE RUTUJA SHANKAR
10	UGHADE SATYAJEET MAHADEV
11	UNHALE AMARJEET GANESH
12	VASEKAR TEJASHREE BABURAO
13	VASUGADE ANIKET DHANYAKUMAR
14	VHONMANE SIDDHESHWAR ANIL



15	WAGHMODE NITIN SUBHASH
16	WAGHMODE SHITAL ANKUSH
17	WAYCHAL OMPRAKASH MAHESH
18	YADAV VISHAL VISHNU

Time Table 2020-21

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
3.00 to 3.48	Org.Chem. SPS	Physical Chem. VNK	Inorganic Chem. MVG	Analytical Chem. TBM	Org.Chem SPS	Physical Chem. SGG

Mark List: 2020-21

Sr.No.	Students Name	Marks obtained out of 20M	Slow Learner/Fast Learner
1	ADLINGE MANISHA DHANAJI	12	Fast Learner
2	BHISE DIPALI DHULA	06	Slow Learner
3	BHOSALE PRAJYOT SHRIMANT	09	Slow Learner
4	CHAVAN AKSHAY GIRIDHAR	12	Fast Learner
5	CHAVAN ANIKET NAVNATH	17	Fast Learner
6	CHAVAN GANESH BALASAHEB	09	Slow Learner
7	CHAVARE SAMADHAN MARUTI	12	Fast Learner
8	DALAVE KRUSHNATH POPAT	06	Slow Learner



9	UDAVE RUTUJA SHANKAR	08	Slow Learner
10	UGHADE SATYAJEET MAHADEV	09	Slow Learner
11	UNHALE AMARJEET GANESH	12	Fast Learner
12	VASEKAR TEJASHREE BABURAO	13	Fast Learner
13	VASUGADE ANIKET DHANYAKUMAR	14	Fast Learner
14	VHONMANE SIDDHESHWAR ANIL	15	Fast Learner
15	WAGHMODE NITIN SUBHASH	16	Fast Learner
16	WAGHMODE SHITAL ANKUSH	08	Slow Learner
17	WAYCHAL OMPRAKASH MAHESH	07	Slow Learner
18	YADAV VISHAL VISHNU	08	Slow Learner

Result: Slow Learner total students: 09

Fast Learner total Students: 09



IIT-JAM Training Course (Chemistry) Fast Learner Students

Time Table 2020-2021

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12:30 to 01:30 PM	MVG	MVG	SGG	SGG	SPS	SPS
01:30 to 02:30 PM	TBM	TBM	TBM	MVG	VNK	VNK

TBM: Dr Tukaram B Mhamane

MVG: Mr Mahadev V Gaikwad

VNK: Dr Vishal N Kadam

SGG: Mr Shivshankar G Gaikwad

SPS: Dr Sachin P Shirame



Fast Learner Students List: 2020-2021

Sr.No.	Students Name
1	DALAVE NEHA SAMBHAJI
2	GADEKAR SUHAS LAXMAN
3	GAIKWAD PANKAJ TANAJI
4	GUND MAYURI DATTATRAY
5	JADHAV KAJAL KAKASAHEB
6	INGALE PRAJAKTA ANANT
7	KADAM SWAPNIL DATTATRAY
8	KUMBHAR SONALI BALBHIM
9	MAGAR SAURABH TANAJI
10	PETHE ATUL SOMNATH
11	PATIL ARATI SUDHIR
12	RAUT ARTI ANKUSH
13	KOKARE ASHWINI ANNA
14	GUND SHIVANI SHAHAJI
15	GUND PRITEE RAJENDRA



BABURAO PATIL COLLEGE OF ARTS AND SCIENCE ANGAR
STUDENTS ATTENDANCE REGISTER

Class	B.Sc III	Month	September-2021	Subject	chemistry	Name of the Teachers																			
Sl. No.	Students Name	01/09	03/09	04/09	06/09	07/09	08/09	08/09	09/09	10/09	11/09	12/09	13/09	14/09	15/09	18/09	20/09	23/09	27/09	28/09	29/09	30/09			
1)	Rhodakwad.S.M	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat			
2)	Delave Jay M	DAP	DAP	-	DAP	DAP	DAP	DAP	DAP	DAP	DAP	DAP	DAP	DAP	-	DAP	DAP	DAP	DAP	-	DAP	DAP			
3)	Delave. Kap	AD	AD	AD	AD	AD	AD	AD	AD	AD	-	AD	AD	AD	AD	AD	AD	AD	AD	AD	AD	-			
4)	Gaikwad.P.N	GD	GD	GD	GD	GD	-	GD	-	GD	GD	GD	GD	GD	GD	-	GD	GD	GD	GD	GD	GD			
5)	Gaikwad.S.A	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS			
6)	Gawade.A.S	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS	GS			
7)	Gund.A.B	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB			
8)	Gund.V.G	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG	VG			
9)	Tadhav.S.S	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS			
10)	Misal.P.R	Misal	Misal	Misal	Misal	Misal	-	Misal	Misal	Misal	-	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal			
11)	Nagtilak.P.N	P.N	P.N	P.N	P.N	P.N	P.N	P.N	P.N	P.N	-	P.N	P.N	P.N	-	P.N	-	P.N	-	-	P.N	P.N			
12)	Nomde.P.L	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde	Nomde			
13)	Raut.D.D	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut			
14)	Sawant.P.B	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP			
Remarks																									



STUDENTS ATTENDANCE REGISTER

Chemistry

Month September-2020

Subject Chemistry

Name of the Teachers TBM / MVG / BPS / VNR

Remarks

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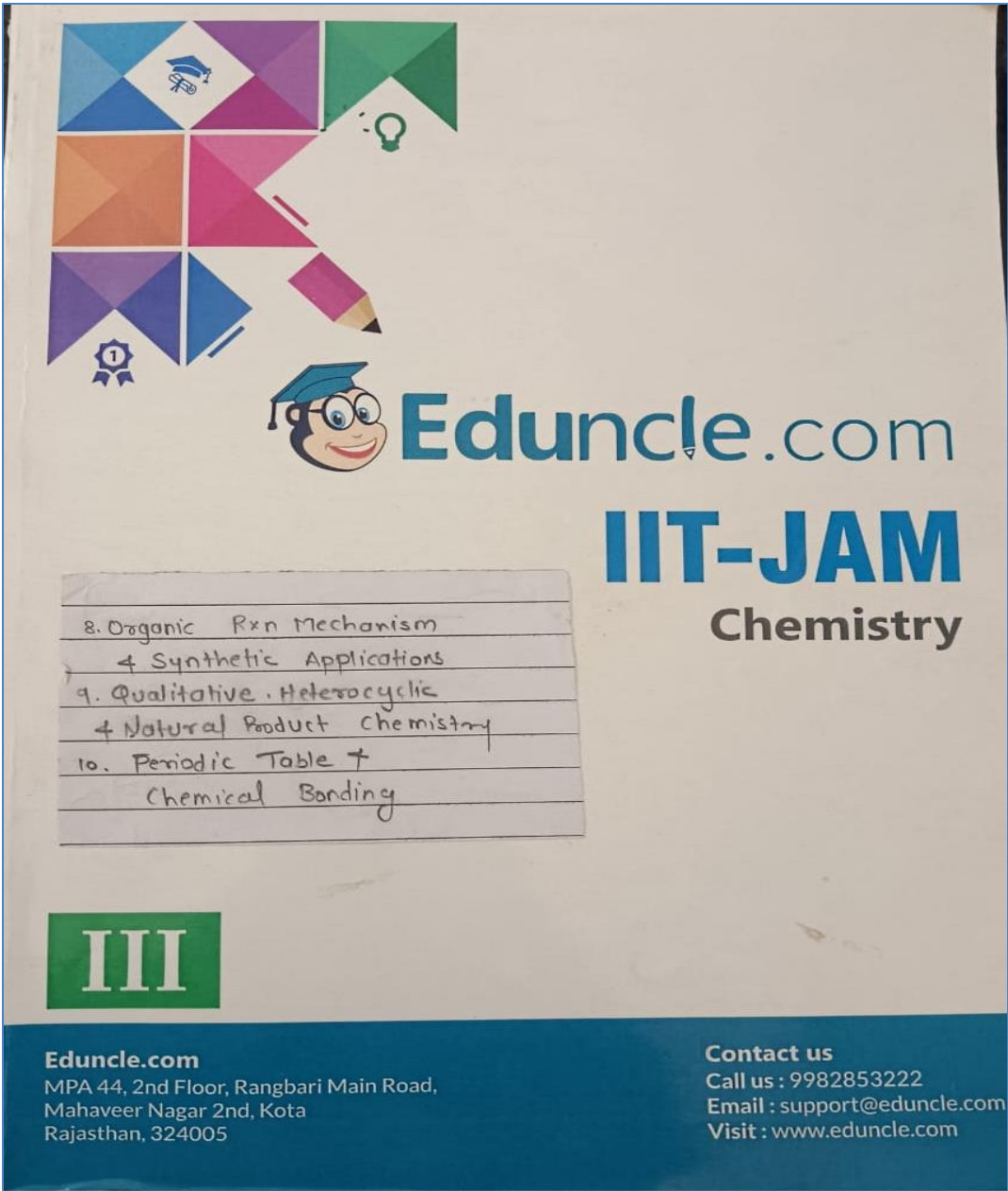
Basic principles; instrumentations and simple applications of conductometry, potentiometry and UV-vis spectrophotometry; analysis of water, air and soil samples.

Analytical Chemistry:

Principles of qualitative and quantitative analysis; acid-base, oxidation-reduction and complexometric titrations using EDTA; precipitation reactions; use of indicators; use of organic reagents in inorganic analysis; radioactivity; nuclear reactions; applications of isotopes.



Study Material Photos:



The image shows the cover of a study material for IIT-JAM Chemistry. The cover is primarily white with a blue footer. At the top left, there is a colorful geometric design consisting of triangles in shades of blue, orange, pink, and purple, with a graduation cap icon and a lightbulb icon. Below this, a cartoon character of a boy wearing a graduation cap and glasses is smiling. To the right of the character, the text "Eduncle.com" is written in a large, blue, sans-serif font. Below "Eduncle.com", the text "IIT-JAM" is written in a large, bold, blue, sans-serif font, and "Chemistry" is written in a smaller, bold, black, sans-serif font. In the center of the cover, there is a rectangular box with a light blue background and horizontal lines, containing handwritten text in black ink. The text lists the topics covered in the material: "8. Organic Rxn Mechanism + Synthetic Applications", "9. Qualitative, Heterocyclic + Natural Product Chemistry", and "10. Periodic Table + Chemical Bonding". Below this box, there is a green rectangular box with the Roman numeral "III" in white. At the bottom of the cover, there is a blue footer containing contact information for Eduncle.com, including the address, phone number, email, and website. A purple circular stamp is visible in the bottom left corner of the image, outside the main cover area.

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8. Organic Rxn Mechanism
+ Synthetic Applications
9. Qualitative, Heterocyclic
+ Natural Product Chemistry
10. Periodic Table +
Chemical Bonding

III



Slow and Fast Learner Question Paper 2021-22

Q. 1 Choose the correct answer from the given option.

1. The intermediate species involved in the chlorination of methane is ---

- a. Carbocation
- b. Carbanion
- c. Carbene
- d. Free radical

2. The IUPAC name of the compound
$$\begin{array}{c} \text{H}_3\text{C}-\text{C}=\text{CH}_2 \\ | \\ \text{CH}_3 \end{array}$$

- a. 2-Methyl prop
- b. 2-Methyl prop-1-ene
- c. 2-Methyl prop-2-ene
- d. 2-Methyl propan

3. Acidic hydrogens are present in -----

- a. Ethane
- b. Ethene
- c. Ethyne
- d. Benzene

4. 1,4-pentadiene is an example of -----

- a. Conjugated diene
- b. Isolated diene
- c. Cumulated diene
- d. None of these

5. Baeyer's reagent is -----

- a. alk.KMnO₄ solution
- b. acidic.KMnO₄ solution
- c. neutral.KMnO₄ solution
- d. None of these

6. In Corey-House reaction which organometallic compounds are used ?

- a. Organolithium compound
- b. Organomagnesium compound
- c. Organozinc compound
- d. All of the above

7. Saturated hydrocarbon mainly undergoes -----



- a. Substitution reaction b. Addition reaction
c. Elimination reaction d. polymerization
8. Which of the following is an optically active ?
a. Tartaric acid b. Lactic acid
c. 2,3-dihydroxy butanoic acid d. Mesotartaric acid
9. Maleic acid and fumaric acid are -----
a. Optical isomers b. Conformational isomers
c. Geometrical isomers d. Enantiomers
10. Pentalene and Azulene are examples of -----compounds.
a. Aromatic b. Non-Aromatic
c. Anti-Aromatic d. Pseudo-Aromatic
11. Stereoisomers which are not having mirror images of each other are called -----
a. Enantiomers b. Diastereoisomers
c. Mesomers d. Optical antipodes
12. Which compound shows Cis-Trans isomerism ?
a. Pent-1-ene b. But-1-ene
c. Propene d. But-2-ene
13. Which of the following is a non benzenoid compound ?
a. Naphthalene b. Benzene
c. Pyridine d. Phenol
14. Dienes are isomeric with ----
a. Alkenes b. Alkynes
c. Alkanes d. Cycloalkanes



15. The number of electrons in outermost valence shell of carbon having positive charge in a carbocation are -----

- a. 4 b. 6
- c. 7 d. 8

16. The compound having both sp and sp^2 hybridized carbon atom is -----

- a. Propyne b. Propene
- c. Propadiene d. Propane

17. Carbocations are -----

- a. Electron deficient b. Electron rich
- c. Neutral d. None of these

18. The hybridization of carbon involved in acetylene is -----

- a. sp^2 b. sp
- c. sp^3 d. None of these

19. Among ethane, ethene and ethyne, the C-H bond energy is -----

- a. Equal in all b. More in ethane
- c. More in ethene d. More in ethyne

20. The bond angle in methane molecule is -----

- a. 120° b. 180°
- c. $109^\circ 5'$ d. 90°



Student List: 2021-22

Sr.No.	Students List
1	THORAT MANSI BABASAHEB
2	THORAT RAHUL ANNASAHEB
3	THORAT MONIKA VINOD
4	ZENDAGE AKASH SAHU
5	GUND MANTHAN DINESH
6	MANE SANGHARSH SIDDHESHWAR
7	NAGTILAK AMIT BANDU
8	GUND ROHIT RAJKUMAR
9	SARAK AKASH VITTHAL
10	SIRSAT ADITYA PRABHAKAR
11	GUND ONKAR DATTATRAY
12	SHINDE VAISHNAVI SHIVAJI
13	GUND MAYURI DINKAR
14	MAGAR PRACHI SAHEBRAO
15	GHADAGE SHUBHANGI BHUJANG
16	CHAUGULE GIRIRAJ DILIP
17	GUND SHIVSHANKAR DADA
18	DESHMUKH VAISHNAVI DHANAJI
19	GHODAKE VAISHNAVI SUNIL
20	KSHIRSAGAR VAISHNAVI RAMCHANDRA
21	RAUT RAJANI RAJU
22	MAGAR KAKASAHEB KALIDAS
23	CHAVAN PRIYANKA DATTATRAYA
24	KACHARE PRADIP SIDDHESHWAR
25	BASAD ONKAR RAMKRUSHNA
26	KRUPAL SUJIT GORAKH



Time Table 2021-22

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
3.00 to 3.48	Org.Chem. SPS	Physical Chem. VNK	Inorganic Chem. MVG	Analytical Chem. TBM	Org.Chem SPS	Physical Chem. SGG

Result: 2021-22

Sr.No.	Students List	Obtained marks out of 20M	Slow/Fast Learner
1	THORAT MANSI BABASAHEB	08	Slow Learner
2	THORAT RAHUL ANNASAHEB	12	Slow Learner
3	THORAT MONIKA VINOD	17	Fast Learner
4	ZENDAGE AKASH SAHU	18	Slow Learner
5	GUND MANTHAN DINESH	09	Slow Learner
6	MANE SANGHARSH SIDDHESHWAR	08	Slow Learner
7	NAGTILAK AMIT BANDU	17	Fast Learner
8	GUND ROHIT RAJKUMAR	06	Slow Learner
9	SARAK AKASH VITTHAL	05	Slow Learner
10	SIRSAT ADITYA PRABHAKAR	14	Fast Learner
11	GUND ONKAR DATTATRAY	16	Fast Learner
12	SHINDE VAISHNAVI SHIVAJI	16	Fast Learner
13	GUND MAYURI DINKAR	18	Slow Learner
14	MAGAR PRACHI SAHEBRAO	09	Slow Learner
15	GHADAGE SHUBHANGI BHUJANG	10	Slow Learner
16	CHAUGULE GIRIRAJ DILIP	11	Slow Learner
17	GUND SHIVSHANKAR DADA	05	Slow Learner
18	DESHMUKH VAISHNAVI DHANAJI	18	Fast Learner
19	GHODAKE VAISHNAVI SUNIL	07	Slow Learner
20	KSHIRSAGAR VAISHNAVI RAMCHANDRA	06	Slow Learner
21	RAUT RAJANI RAJU	08	Slow Learner
22	MAGAR KAKASAHEB KALIDAS	19	Fast Learner
23	CHAVAN PRIYANKA DATTATRAYA	07	Slow Learner
24	KACHARE PRADIP SIDDHESHWAR	08	Slow Learner



25	BASAD ONKAR RAMKRUSHNA	14	Fast Learner
26	KRUPAL SUJIT GORAKH	15	Fast Learner

Result: Slow Learner total students: 17

Fast Learner total Students: 09

IIT-JAM Training Course (Chemistry) Fast Learner Students

Time Table 2021-2022

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12:30 to 01:30 PM	MVG	MVG	SGG	SGG	SPS	SPS
01:30 to 02:30 PM	TBM	TBM	TBM	MVG	VNK	VNK

TBM: Dr Tukaram B Mhamane

MVG: Mr Mahadev V Gaikwad

VNK: Dr Vishal N Kadam

SGG: Mr Shivshankar G Gaikwad

SPS: Dr Sachin P Shirame



Fast Learner Students List: 2021-2022

Sr.No.	Students Name
1	BHADAKWAD SWARANJALI MAHADEV
2	DALAVE AJAY MAHAVIR
3	DALAVE SHANTINATH PARMESHWAR
4	GAIKWAD DIVYA DATTATRAY
5	GAIKWAD SHIVANI ARUN
6	GAWADE AKASH SANTOSH
7	GUND ANKITA BHIMRAO
8	GUND VAISHNAVI GAJENDRA
9	JADHAV SUPRIYA SHASHIKANT
10	MISAL POOJA RAJENDRA
11	NAGTILAK PAVANKUMAR NAGNATH
12	NAMADE PRADNYA LAXMAN
13	RAUT DINESH DATTU
14	SAWANT PRANALI BITU



BABURAO PATIL COLLEGE OF ARTS AND SCIENCE ANGAR
STUDENTS ATTENDANCE REGISTER

STUDENT'S ATTENDANCE REGISTER			ACADEMIC YEAR - 2021-2022		Name of the Teachers																															
Class	P. sc III	Month	September-2021		Subject	chemistry	YNK	MYG	SPS	TBM																										
Sr No.	Students Name	01/09	02/09	03/09	04/09	05/09	06/09	07/09	08/09	09/09	10/09	11/09	12/09	13/09	14/09	15/09	16/09	17/09	18/09	19/09	20/09	21/09	22/09	23/09	24/09	25/09	26/09	27/09	28/09	29/09	30/09					
1)	Bhadakwad. S.M	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat	Sat					
2)	Dalve. Jay M	DAPS	DAPS	-	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS	-	DAPS	DAPS	DAPS	DAPS	DAPS	-	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS	DAPS					
3)	Dalve. Kap	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD	BD					
4)	Gaikwad. P. n	GD	GD	GD	GD	GD	-	GD	-	GD	GD	GD	GD	GD	GD	GD	-	GD	GD	GD	GD	GD	GD	GD	GD	GD	GD	GD	GD	GD	GD					
5)	Gaikwad. S.A	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS	GAS					
6)	Gaidade. A. S	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good					
7)	Gund. A. B	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good					
8)	Gund. V. G	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good					
9)	Tadhav. S. S	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy	Stdy					
10)	Misa. P. R	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal	Misal				
11)	Nagtilak. P.N	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A	P.N.A					
12)	Norade. P. L	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade	Norade				
13)	Raut D. D	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut	Raut				
14)	Sawant. P.B	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe	SPe				
Remarks																																				



BABURAO PATIL COLLEGE OF ARTS AND SCIENCE ANGAR																										
STUDENTS ATTENDANCE REGISTER																										
ACADEMIC YEAR 2021-2022																										
Class	B.Sc III																									
Month	October-2021																									
Subject	Chemistry																									
Name of the Teachers	SPS / MVG / YNK / TBM																									
Sl. No.	Student Name	03/10	04/10	05/10	06/10	07/10	08/10	09/10	10/10	11/10	12/10	13/10	14/10	15/10	16/10	22/10	23/10	24/10	27/10	28/10	29/10					
1)	Bhadgkud. S. S.	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
2)	Dalave. A. M.	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM	DAM
3)	Dalave. S. P.	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
4)	Gaikwad. D. D.	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
5)	Gaikwad. S. A. G.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
6)	Gaokade. A. S.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
7)	Gund. A. B.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
8)	Gund. V. G.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
9)	Jadhav. S. S.	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
10)	Misal. P. R.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
11)	Nogtilak. P. N.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
12)	Namade. P. L.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
13)	Raut. D. D.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
14)	Sawant. P. B.	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
15)																										
Remarks																										

CHEMISTRY (CY)

Physical Chemistry

Atomic and Molecular Structure:

Planck's black body radiation, Photoelectric effect, Bohr's theory, de Broglie postulate, Heisenberg's Uncertainty Principle; Schrödinger's wave equation (including mathematical treatment), postulates of quantum mechanics, normalized and orthogonal wave functions, its complex conjugate (idea of complex numbers) and significance of Ψ^2 ; Operators; Particle in one-dimension box, radial and angular wave functions for hydrogen atom, radial probability distribution; Finding maxima of distribution functions



(idea of maxima and minima), energy spectrum of hydrogen atom; Shapes of s, p, d and f orbitals; Pauli's Exclusion Principle; Hund's rule of maximum multiplicity.

Gaseous State:

Kinetic molecular model of a gas: collision frequency; collision diameter; mean free path and viscosity of gases; Maxwell-Boltzmann distribution: molecular velocities, law of equipartition of energy, molecular basis of heat capacities; Ideal gases, and deviations from ideal gas behaviour, van der Waals equation of state; critical state, law of corresponding states.

Liquid State:

Physical properties of Liquid, vapour pressure, surface tension and coefficient of viscosity and their applications; effect of concentration of solutes on surface tension and viscosity; effect of temperature on viscosity of liquids.

Solid State:

Unit Cells, Miller indices, crystal systems and Bravais Lattices, elementary applications of vectors to crystal systems; X-ray diffraction, Bragg's Law, Structure of NaCl, CsCl, and KCl, diamond, and graphite; Close packing in metals and metal compounds, semiconductors, insulators; Defects in crystals, lattice energy; isomorphism; heat capacity of solids.

Chemical Thermodynamics:

Mathematical treatment: Exact and in-exact differentials, partial derivatives, Euler's reciprocity, cyclic rule; Reversible and irreversible processes; Laws of thermodynamics, thermochemistry, thermodynamic functions, such as enthalpy, entropy, and Gibbs free energy, their properties and applications; Partial molar quantities, dependence of thermodynamic parameters on composition, Gibbs Duhem equation, chemical potential and its applications.

Chemical and Phase Equilibria:



Law of mass action; K_p , K_c , K_x and K_n ; Effect of temperature on K ; Le-Chatelier principle; Ionic equilibria in solutions; pH and buffer solutions; Salt hydrolysis; Solubility and solubility product; Acid – base titration curves; Indicators; Dilute solutions; Raoult's and Henry's Laws and their applications; Colligative properties; Gibbs phase rule; Phase equilibria; single and two-component phase diagrams.

Electrochemistry:

Conductivity, equivalent and molar conductivity and their properties; Kohlrausch law; Debye-Hückel-Onsager equation; Ionic velocities, mobilities, transference numbers; Applications of conductance measurement; Quantitative aspects of Faraday's laws of electrolysis, applications of electrolysis in metallurgy and industry; Electromotive force of a cell, Nernst equation; Standard electrode potential, Electrochemical series; Concentration cells with and without transference; Applications of EMF measurements including potentiometric titrations.

Chemical Kinetics:

Order and molecularity of a reaction, differential and integrated form of rate expressions - basic ideas of integration and differentiation; Kinetics of opposing, parallel, and consecutive reactions; Steady state approximation in reaction mechanisms; Chain reactions; Uni-molecular reaction (Lindemann mechanism); Temperature dependence of reaction rates, Arrhenius equation; activation energy; Collision theory of reaction rates; Types of catalysts, specificity and selectivity, mechanisms of catalyzed reactions at solid surfaces; Enzyme catalysis (Michaelis-Menten mechanism, Double reciprocal plot), Acid-base catalysis.

Adsorption:

Gibbs adsorption equation; adsorption isotherm; types of adsorption; surface area of adsorbents; surface films on liquids.



Spectroscopy:

Beer-Lambert's law; fundamental concepts of rotational, vibrational, electronic and magnetic resonance spectroscopy.

Organic Chemistry

Basic Concepts in Organic Chemistry and Stereochemistry:

Electronic effects (resonance, inductive, hyperconjugation) and steric effects and its applications (acid/base property); optical isomerism in compounds with and without any stereocenters (allenes, biphenyls); conformation of acyclic systems (substituted ethane/n-propane/n-butane) and cyclic systems, substituted cyclohexanes, and polycyclic (*cis* and *trans* decalins) systems.

Organic Reaction Mechanism and Synthetic Applications:

Chemistry of reactive intermediates (carbocations, carbanions, free radicals, carbenes, nitrenes, benzyne); nucleophilic substitution, elimination reactions and mechanisms; Hofmann-Curtius-Lossen rearrangement, Wolff rearrangement, Simmons-Smith reaction, Reimer-Tiemann reaction, Michael reaction, Darzens reaction, Wittig reaction and McMurry reaction; Pinacolpinacolone, Favorskii, benzilic acid rearrangement, Baeyer-Villiger reaction; oxidation and reduction reactions in organic chemistry; Organometallic reagents in organic synthesis (Grignard, organolithium, organocopper and organozinc (Reformatsky only); Diels-Alder, electrocyclic and sigmatropic reactions; functional group inter-conversions and structural problems using chemical reactions.

Qualitative Organic Analysis:

Identification of functional groups by chemical tests; elementary UV, IR and ^1H NMR spectroscopic techniques as tools for structural elucidation of simple organic molecules.



Natural Products Chemistry:

Chemistry of alkaloids, steroids, terpenes, carbohydrates, amino acids, peptides and nucleic acids.

Aromatic and Heterocyclic Chemistry:

Monocyclic, bicyclic and tricyclic aromatic hydrocarbons, and monocyclic compounds with one hetero atom: synthesis, reactivity and properties, aromaticity; Electrophilic and nucleophilic aromatic substitution reactions.

Inorganic Chemistry

Periodic Table:

Periodic classification of elements, Aufbau's principle, periodicity; Variations of orbital energy, effective nuclear charge, atomic, covalent, and ionic radii, ionization enthalpy, electron gain enthalpy, and electronegativity with atomic number, electronic configuration of diatomic molecules (first and second row elements).



Material Photos



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IIT-JAM
Chemistry

8. Organic Rxn Mechanism
+ Synthetic Applications
9. Qualitative, Heterocyclic
+ Natural Product Chemistry
10. Periodic Table +
Chemical Bonding

III

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Mahaveer Nagar 2nd, Kota
Rajasthan, 324005

Contact us
Call us : 9982853222
Email : support@eduncle.com
Visit : www.eduncle.com



Slow and Fast Learner 2022-2023

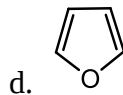
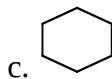
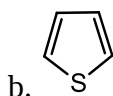
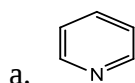
1. Inductive effect involves -----
 - a. π electrons
 - b. σ electrons
 - c. Both
 - d. Lone pair of electrons
2. Total number of bonds present in $\text{H}_2\text{C}=\text{CH}_2$ are -----
 - a. 5 σ and 1 π
 - b. 3 σ and 3 π
 - c. 4 σ and 2 π
 - d. 2 σ and 4 π
3. Nucleophiles are -----
 - a. Electron loving
 - b. Nucleus loving
 - c. Nucleus hating
 - d. None of these
4. 1-Chlorobutane on reaction with alcoholic KOH gives -----
 - a. But-1-ene
 - b. Butan-1-ol
 - c. Ethyne
 - d. Butan-2-ol
5. Olefins can be hydrogenated by -----
 - a. $\text{Zn} + \text{HCl}$
 - b. Raney Ni + H_2
 - c. Nascent H_2
 - d. None of these
6. General formula of cycloalkane is -----
 - a. C_nH_{2n}
 - b. $\text{C}_n\text{H}_{2n+2}$
 - c. $\text{C}_n\text{H}_{2n-2}$
 - d. None of these



7. The order of reactivity of halogen in halogenation of methane is -----
- a. $\text{Br}_2 > \text{Cl}_2 > \text{F}_2$ b. $\text{F}_2 > \text{Cl}_2 > \text{Br}_2$
c. $\text{Cl}_2 > \text{Br}_2 > \text{F}_2$ d. All of the above
8. Heterolytic fission of an organic covalent bond gives -----
- a. Free radicals b. Only cations
c. Only anions d. Both cations and anions
9. Anti-Markownikoffs addition of HBr is not observed in ----
- a. Propene b. But-1-ene
c. But-2-ene d. pent-2-ene
10. Wurtz reaction is useful for the preparation of -----
- a. Alkene b. Alkyne
c. Alkane d. All of the above
11. Which is a chiral molecule ?
- a. CH_3Cl b. CHClBrI
c. CHBr_3 d. CH_2Cl_2
12. If compound has three different chiral carbon atoms, then number of optical isomers are
- a. 3 b. 2
c. 6 d. 8



13. Which of the following will not show aromatic character ?



14. The pyrrole is a -----

- | | |
|----------------|----------------|
| a. Strong base | b. Strong acid |
| c. Weak base | d. Neutral |

15. Aromaticity is explained by the rule -----

- | | |
|------------------|------------------|
| a. Hund's rule | b. Phase rule |
| c. Huckel's rule | d. None of these |

16. The bond angle is maximum in ----- hybridization.

- | | |
|-----------|------------------|
| a. sp^3 | b. sp^2 |
| c. sp | d. None of these |

17. n-Propyl bromide on treatment with alcoholic KOH produces -----

- | | |
|------------|-------------|
| a. Propane | b. Propene |
| c. Propyne | d. Propanol |

18. Racemic mixture is optically inactive due to -----

- | | |
|-------------------------------|--------------------------|
| a. External compensation | b. Internal compensation |
| c. Presence of plane symmetry | d. Lack of chiral centre |

19. Pyridine is an -----



- a. Alicyclic compound b. Aliphatic compound
c. Aromatic compound d. Antiaromatic compound

20. The C-C-C bond angle in benzene is -----

- a. 120° b. 180°
c. 45° d. 60°

Students List 2022-23

Sr.No.	Students Name
1	PATIL JANMEJAY SANTOSH
2	PATIL VAISHNAVI NAGESH
3	PAWAR LAKHAN KAMALAKAR
4	RAUT DINESH DATTU
5	RAUT LAKHAN RAMESH
6	RAUT ONKAR SOMNATH
7	SARADE MAHESH SANJAY
8	SARAK SANDHYARANI SHIVAJI
9	SARAK SUPRIYA SAMADHAN
10	SATHE RUTURAJ SHAILESH
11	SAVANT MANISH MACHHINDRA
12	SAWANT PRANALI BITU
13	SHINDE MAKRAND MAHADEV
14	SHIRAME RAHUL CHANDRAHAR
15	SURVE ONKAR SUNIL
16	THITE AJIT SHANKAR
17	THITE ANIKET DINKAR
18	THITE VAIBHAV DINKAR
19	THORAT ROHAN RAMESH
20	UNHALE RUSHIKESH ANKUSH
21	UNHALE SHUBHAM PRAKASH
22	URANE NILESH POPAT
23	VASEKAR ASHWINI SUJAY
24	VASUGADE ADITYA DHANYAKUMAR
25	VASUGADE CHAITANYA VIJAY
26	VHANAMANE KOMAL RAJENDRA
27	VHANAMANE LATIKA SURESH



28	WAGHMODE SAGAR GAJENDRA
29	YADAV SUBODH MARUTI

Time Table 2022-23

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
3.00 to 3.48	Org.Chem. SPS	Physical Chem. VNK	Inorganic Chem. MVG	Analytical Chem. TBM	Org.Chem SPS	Physical Chem. SGG

Mark List of Slow and Fast Learner:2022-2023

Sr.No.	Students Name	Obtained Marks out of 20M	Result of Slow /Fast Learner
1	PATIL JANMEJAY SANTOSH	11	Slow Learner
2	PATIL VAISHNAVI NAGESH	06	Slow Learner
3	PAWAR LAKHAN KAMALAKAR	12	Slow Learner
4	RAUT DINESH DATTU	13	Fast Learner
5	RAUT LAKHAN RAMESH	14	Fast Learner
6	RAUT ONKAR SOMNATH	05	Slow Learner
7	SARADE MAHESH SANJAY	07	Slow Learner
8	SARAK SANDHYARANI SHIVAJI	08	Slow Learner
9	SARAK SUPRIYA SAMADHAN	09	Slow Learner
10	SATHE RUTURAJ SHAILESH	05	Slow Learner
11	SAVANT MANISH MACHHINDRA	11	Slow Learner
12	SAWANT PRANALI BITU	12	Slow Learner
13	SHINDE MAKRAND MAHADEV	16	Fast Learner
14	SHIRAME RAHUL CHANDRAHAR	17	Fast Learner
15	SURVE ONKAR SUNIL	18	Fast Learner
16	THITE AJIT SHANKAR	09	Slow Learner
17	THITE ANIKET DINKAR	08	Slow Learner
18	THITE VAIBHAV DINKAR	08	Slow Learner
19	THORAT ROHAN RAMESH	07	Slow Learner
20	UNHALE RUSHIKESH ANKUSH	08	Slow Learner
21	UNHALE SHUBHAM PRAKASH	11	Slow Learner
22	URANE NILESH POPAT	12	Slow Learner



23	VASEKAR ASHWINI SUJAY	13	Fast Learner
24	VASUGADE ADITYA DHANYAKUMAR	14	Fast Learner
25	VASUGADE CHAITANYA VIJAY	15	Fast Learner
26	VHANAMANE KOMAL RAJENDRA	16	Fast Learner
27	VHANAMANE LATIKA SURESH	12	Slow Learner
28	WAGHMODE SAGAR GAJENDRA	13	Fast Learner
29	YADAV SUBODH MARUTI	14	Fast Learner

Result: Slow Learner: 18

Fast Learner: 11

IIT-JAM Training Course (Chemistry) Fast Learner Students

Time Table 2021-2022

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
12:30 to 01:30 PM	MVG	MVG	SGG	SGG	SPS	SPS
01:30 to 02:30 PM	TBM	TBM	TBM	MVG	VNK	VNK

TBM: Dr Tukaram B Mhamane

MVG: Mr Mahadev V Gaikwad

VNK: Dr Vishal N Kadam

SGG: Mr Shivshankar G Gaikwad

SPS: Dr Sachin P Shirame

Fast Learner Students List: 2022-2023



Sr.No.	Students Name
1	Bodake Kajal Kumar
2	Gund Pooja Hanumant
3	Thite Rutuja Pandurang
4	Patil Sushma Shivaji
5	Naikwade Vhivdeep Rajendra
6	Fadake Nitin Sadhashiv
7	Kate Navnath Krushna



Class		Month		Subject		Name of the Teachers																							
Bsc - III		October - 2022		Chemistry		VNK / MVG / SPS / TBM																							
Sl. No.	Students Name	01/10	02/10	03/10	04/10	05/10	06/10	07/10	08/10	09/10	10/10	11/10	12/10	13/10	14/10	15/10	16/10	17/10	18/10	19/10	20/10	21/10	22/10	23/10	24/10	25/10	26/10	27/10	
1)	Godake K.K.	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	B.K.K	
2)	Gund P. H.	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	G.P.H	
3)	Twite R. P.	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	T.R.P	
4)	Twite R. S.	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	T.R.S	
5)	Patil S. S.	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	P.S.S	
6)	Nairwade Y. R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	Y.R.	
7)	Fadake N. S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	
8)	Kate N. K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	N.K.	
Remarks																													



CHEMISTRY (CY)

Physical Chemistry

Atomic and Molecular Structure:

Planck's black body radiation, Photoelectric effect, Bohr's theory, de Broglie postulate, Heisenberg's Uncertainty Principle; Schrödinger's wave equation (including mathematical treatment), postulates of quantum mechanics, normalized and orthogonal wave functions, its complex conjugate (idea of complex numbers) and significance of Ψ^2 ; Operators; Particle in one-dimension box, radial and angular wave functions for hydrogen atom, radial probability distribution; Finding maxima of distribution functions (idea of maxima and minima), energy spectrum of hydrogen atom; Shapes of s, p, d and f orbitals; Pauli's Exclusion Principle; Hund's rule of maximum multiplicity.

Gaseous State:

Kinetic molecular model of a gas: collision frequency; collision diameter; mean free path and viscosity of gases; Maxwell-Boltzmann distribution: molecular velocities, law of equipartition of energy, molecular basis of heat capacities; Ideal gases, and deviations from ideal gas behaviour, van der Waals equation of state; critical state, law of corresponding states.

Liquid State:

Physical properties of Liquid, vapour pressure, surface tension and coefficient of viscosity and their applications; effect of concentration of solutes on surface tension and viscosity; effect of temperature on viscosity of liquids.

Solid State:

Unit Cells, Miller indices, crystal systems and Bravais Lattices, elementary applications of vectors to crystal systems; X-ray diffraction, Bragg's Law, Structure of NaCl, CsCl, and KCl, diamond, and graphite; Close packing in metals and metal compounds, semiconductors, insulators; Defects in crystals, lattice energy; isomorphism; heat capacity of solids.

Chemical Thermodynamics:

Mathematical treatment: Exact and in-exact differentials, partial derivatives, Euler's



reciprocity, cyclic rule; Reversible and irreversible processes; Laws of thermodynamics, thermochemistry, thermodynamic functions, such as enthalpy, entropy, and Gibbs free energy, their properties and applications; Partial molar quantities, dependence of thermodynamic parameters on composition, Gibbs Duhem equation, chemical potential and its applications.

Chemical and Phase Equilibria:

Law of mass action; K_p , K_c , K_x and K_n ; Effect of temperature on K ; Le-Chatelier principle; Ionic equilibria in solutions; pH and buffer solutions; Salt hydrolysis; Solubility and solubility product; Acid – base titration curves; Indicators; Dilute solutions; Raoult's and Henry's Laws and their applications; Colligative properties; Gibbs phase rule; Phase equilibria; single and two-component phase diagrams.

Electrochemistry:

Conductivity, equivalent and molar conductivity and their properties; Kohlrausch law; Debye-Hückel-Onsager equation; Ionic velocities, mobilities, transference numbers; Applications of conductance measurement; Quantitative aspects of Faraday's laws of electrolysis, applications of electrolysis in metallurgy and industry; Electromotive force of a cell, Nernst equation; Standard electrode potential, Electrochemical series; Concentration cells with and without transference; Applications of EMF measurements including potentiometric titrations.

Chemical Kinetics:

Order and molecularity of a reaction, differential and integrated form of rate expressions - basic ideas of integration and differentiation; Kinetics of opposing, parallel, and consecutive reactions; Steady state approximation in reaction mechanisms; Chain reactions; Uni-molecular reaction (Lindemann mechanism); Temperature dependence of reaction rates, Arrhenius equation; activation energy; Collision theory of reaction rates; **Types of catalysts, specificity** and selectivity, mechanisms of catalyzed reactions at solid surfaces; Enzyme catalysis (Michaelis-Menten mechanism, Double reciprocal plot), Acid-base catalysis.

Adsorption:

Gibbs adsorption equation; adsorption isotherm; types of adsorption; surface area of adsorbents; surface films on liquids.

Spectroscopy:

Beer-Lambert's law; fundamental concepts of rotational, vibrational, electronic and magnetic resonance spectroscopy.



Organic Chemistry

Basic Concepts in Organic Chemistry and Stereochemistry:

Electronic effects (resonance, inductive, hyperconjugation) and steric effects and its applications (acid/base property); optical isomerism in compounds with and without any stereocenters (allenes, biphenyls); conformation of acyclic systems (substituted ethane/n-propane/n-butane) and cyclic systems, substituted cyclohexanes, and polycyclic (*cis* and *trans* decalins) systems.

Organic Reaction Mechanism and Synthetic Applications:

Chemistry of reactive intermediates (carbocations, carbanions, free radicals, carbenes, nitrenes, benzyne); nucleophilic substitution, elimination reactions and mechanisms; Hofmann-Curtius-Lossen rearrangement, Wolff rearrangement, Simmons-Smith reaction, Reimer-Tiemann reaction, Michael reaction, Darzens reaction, Wittig reaction and McMurry reaction; Pinacolpinacolone, Favorskii, benzylic acid rearrangement, Baeyer-Villiger reaction; oxidation and reduction reactions in organic chemistry; Organometallic reagents in organic synthesis (Grignard, organolithium, organocopper and organozinc (Reformatsky only); Diels-Alder, electrocyclic and sigmatropic reactions; functional group inter-conversions and structural problems using chemical reactions.

Qualitative Organic Analysis:

Identification of functional groups by chemical tests; elementary UV, IR and ^1H NMR spectroscopic techniques as tools for structural elucidation of simple organic molecules.

Natural Products Chemistry:

Chemistry of alkaloids, steroids, terpenes, carbohydrates, amino acids, peptides and nucleic acids.

Aromatic and Heterocyclic Chemistry:

Monocyclic, bicyclic and tricyclic aromatic hydrocarbons, and monocyclic compounds with one hetero atom: synthesis, reactivity and properties, aromaticity; Electrophilic and nucleophilic aromatic substitution reactions.



Inorganic Chemistry

Periodic Table:

Periodic classification of elements, Aufbau's principle, periodicity; Variations of orbital energy, effective nuclear charge, atomic, covalent, and ionic radii, ionization enthalpy, electron gain enthalpy, and electronegativity with atomic number, electronic configuration of diatomic molecules (first and second row elements).



Extractions of Metals:

General methods of isolation and purification of elements; Principles and applications of Ellingham diagram.

Chemical Bonding and shapes of molecules:

Ionic bond: Packing of ions in crystals, radius ratio rule, Born-Landé equation, Kapustinskii expression, Madelung constant, Born-Haber cycle, solvation energy, polarizing power and polarizability; Fajan's rules; Covalent bond: Lewis structure, valence bond theory. Hybridization, molecular orbital theory, molecular orbital diagrams of diatomic and simple polyatomic molecules and ions; Multiple bonding (σ and π bond approach) and bond lengths; van der Waals forces, ion-dipole forces, dipole-dipole interactions, induced dipole interactions, instantaneous dipole-induced dipole interactions, hydrogen bonding; Effect of intermolecular forces on melting and boiling points, solubility energetics of dissolution process; Bond dipole, dipole moment, and molecular polarizabilities; VSEPR theory and shapes of molecules; ionic solids.

Main Group Elements (s and p blocks):

Reactions of alkali and alkaline earth metals with oxygen, hydrogen and water; Alkali and alkaline earth metals in liquid ammonia; Gradation in properties of main group element in a group; Inert pair effect; Synthesis, structure and properties of diborane, ammonia, silane, phosphine and hydrogen sulphide; Allotropes of carbon; Oxides of nitrogen, phosphorus and sulphur; Oxoacids of phosphorus, sulphur and chlorine; Halides of silicon and phosphorus; Synthesis and properties of borazine, silicone and phosphazene; Synthesis and reactions of xenon fluorides.

Transition Metals (d block):

Characteristics of d-block elements; oxide, hydroxide and salts of first row metals; coordination complexes: structure, isomerism, reaction mechanism and electronic spectra; VB, MO and crystal field theoretical approaches for structure, color and magnetic properties of metal complexes; Organometallic compounds with metal-ligand single and multiple bonds (such as metal carbonyls, metal nitrosyls and metallocenes); Homogeneous catalysis involving Wilkinson's catalyst.

Bioinorganic Chemistry:

Essentials and trace elements of life; basic reactions in the biological systems and the role of metal ions, especially Fe^{2+} , and Zn^{2+} ; structure and function of myoglobin, hemoglobin and carbonic anhydrase.



Instrumental Methods of Analysis:

Basic principles; instrumentations and simple applications of conductometry, potentiometry and UV-vis spectrophotometry; analyses of water, air and soil samples.

Analytical Chemistry:

Principles of qualitative and quantitative analysis; Acid-base, oxidation-reduction and complexometric titrations using EDTA; Precipitation reactions; Use and types of indicators; Use of organic reagents in inorganic analysis; Radioactivity, nuclear reactions, applications of isotopes; Mathematical treatment in error analysis, elementary statistics and probability theory.

Material Photos



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IIT-JAM

Chemistry

8. Organic Rxn Mechanism
+ Synthetic Applications
9. Qualitative Heterocyclic
+ Natural Product Chemistry
10. Periodic Table +
Chemical Bonding

III

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Visit : www.eduncle.com

Principal

Baburao Patil College of Arts & Science
Angar, Tal. Mohol, Dist. Solapur.



Baburao Patil College of Arts and Science, Angar

Advanced and slow learners

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The aims and objectives of teaching advanced and slow learners may vary based on the specific needs of each group. Here are some general aims and objectives for teaching both advanced and slow learners:

Aims and Objectives for Advanced Learners:

Enhance Depth of Knowledge:

Aim: To deepen their understanding of the subject matter.

Objective: Encourage advanced learners to explore complex topics, theories, and concepts in greater depth, going beyond the standard curriculum.

Foster Critical Thinking and Problem-Solving:

Aim: To develop their analytical and problem-solving skills.

Objective: Engage advanced learners in activities that require critical thinking, creativity, and the application of knowledge to real-world problems.

Promote Independent Learning:

Aim: To encourage self-directed learning.

Objective: Provide opportunities for advanced learners to pursue independent research, projects, and self-guided study.

Support Enrichment and Extension:

Aim: To keep advanced learners challenged and motivated.

Objective: Offer enrichment activities, advanced coursework, or access to resources beyond the standard curriculum.

Develop Leadership and Collaboration Skills:

Aim: To prepare them for leadership roles.

Objective: Encourage advanced learners to collaborate with peers, mentor others, and develop leadership qualities.

Aims and Objectives for Slow Learners:

Build Fundamental Skills:

Aim: To establish a strong foundation.

Objective: Focus on core skills in reading, writing, mathematics, and other essential subjects to ensure mastery of foundational concepts.



Advanced and slow learners

Syllabus

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Course Title: Advanced English Language and Literature

Course Description:

This course is designed for students with a strong foundation in English language and literature. It aims to deepen their understanding of the English language, literature, and critical analysis skills.

1. Language Skills
2. Writing Skills
3. Essay writing techniques (argumentative, expository, analytical)
4. Classic literature analysis
5. Public speaking and presentation skills
6. Research project on a chosen literary work or topic
7. Literary analysis essay
8. Group project on a literary theme or genre
9. Final presentations
10. Basic Language Skills
11. Tracing and copying letters and words
12. Basic conversational skills (greetings, common questions)
13. Reading short, adapted stories
14. Drawing and coloring related to stories



Baburao Patuil College of Arts and Science, Angar

Academic Year 2018-19

English Advanced and Slow Learner

Date-02/09/2018

Mark-20

Fill in the blanks

1. What is the correct synonym for "benevolent"? A. Angry B. Generous C. Unpredictable D. Mysterious (Answer: B)
2. Identify the word that is a homonym for "write." A. Right B. Rite C. Wright D. Writhe (Answer: C)
3. Which of the following sentences is in the passive voice? A. She painted a beautiful landscape. B. The book was read by John. C. They are playing soccer in the park. D. He quickly solved the puzzle. (Answer: B)
4. Choose the correct form of the verb to complete the sentence: "She _____ to the store yesterday." A. goes B. went C. going D. gone (Answer: B)
5. What part of speech is the word "happiness" in the sentence: "Her happiness was contagious"? A. Adjective B. Noun C. Verb D. Adverb (Answer: B)
6. Which of the following sentences contains an example of alliteration? A. The cat chased the mouse. B. Peter Piper picked a peck of pickled peppers. C. She sang a beautiful song. D. The car raced down the highway. (Answer: B)
7. Identify the correct punctuation for this sentence: "I can't believe you did that" A. I can't believe you did that. B. I can't believe, you did that. C. I can't believe you did that! D. I can't believe, you did that! (Answer: A)
8. Which of these words is an antonym for "vivid"? A. Dull B. Bright C. Colorful D. Lively (Answer: A)
9. What is the plural form of "child"? A. Childs B. Children C. Childes D. Childen (Answer: B)
10. In the sentence, "The sun was shining, and the birds were singing," what is the conjunction? A. Sun B. Shining C. And D. Singing (Answer: C)
11. Choose the correct word to complete the idiom: "Don't count your chickens before they ____." A. Fly B. Hatch C. Cluck D. Roost (Answer: B)
12. What is the opposite of "courageous"? A. Fearful B. Strong C. Brave D. Confident (Answer: A)
13. Which sentence is in the past perfect tense? A. She will go to the store later. B. They were watching a movie. C. He had already finished his homework. D. I am reading a book. (Answer: C)



14. What is the correct comparative form of "good"? A. Gooder B. Better C. Best D. Weller (Answer: B)
15. Identify the adverb in the sentence: "She spoke softly." A. She B. Spoke C. Softly D. Spoke softly (Answer: C)
16. Which of these words is spelled correctly? A. Occasionnal B. Occasional C. Occassional D. Occational (Answer: B)
17. What is the plural of "knife"? A. Knifes B. Knive C. Knifves D. Knives (Answer: D)
18. In the sentence, "The cat chased its tail," what is the pronoun? A. The B. Cat C. Chased D. Its (Answer: D)
19. What is the correct spelling of the word meaning "a sudden, violent, and illegal seizure of power"? A. Coupe B. Coup C. Koop D. Coop (Answer: B)
20. Which of these sentences contains a simile? A. The night was as dark as coal. B. The river flowed silently. C. He ran like the wind. D. The stars twinkled in the sky. (Answer: C)



Baburao Patuil College of Arts and Science, Angar

Academic Year 2019-20

English Advanced and Slow Learner

Date-04/09/2019

Mark-20

=====

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Baburao Patuil College of Arts and Science, Angar

Academic Year 2020-21

English Advanced and Slow Learner

Date-02/09/2020

Mark-20

=====

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Baburao Patuil College of Arts and Science, Angar

Academic Year 2021-22

English Advanced and Slow Learner

Date-04/09/2021

Mark-20

=====

Fill in the blanks

1. What is the correct synonym for "benevolent"? A. Angry B. Generous C. Unpredictable D. Mysterious (Answer: B)
2. Identify the word that is a homonym for "write." A. Right B. Rite C. Wright D. Writhe (Answer: C)
3. Which of the following sentences is in the passive voice? A. She painted a beautiful landscape. B. The book was read by John. C. They are playing soccer in the park. D. He quickly solved the puzzle. (Answer: B)
4. Choose the correct form of the verb to complete the sentence: "She _____ to the store yesterday." A. goes B. went C. going D. gone (Answer: B)
5. What part of speech is the word "happiness" in the sentence: "Her happiness was contagious"? A. Adjective B. Noun C. Verb D. Adverb (Answer: B)
6. Which of the following sentences contains an example of alliteration? A. The cat chased the mouse. B. Peter Piper picked a peck of pickled peppers. C. She sang a beautiful song. D. The car raced down the highway. (Answer: B)
7. Identify the correct punctuation for this sentence: "I can't believe you did that" A. I can't believe you did that. B. I can't believe, you did that. C. I can't believe you did that! D. I can't believe, you did that! (Answer: A)
8. Which of these words is an antonym for "vivid"? A. Dull B. Bright C. Colorful D. Lively (Answer: A)
9. What is the plural form of "child"? A. Childs B. Children C. Childes D. Childen (Answer: B)
10. In the sentence, "The sun was shining, and the birds were singing," what is the conjunction? A. Sun B. Shining C. And D. Singing (Answer: C)
11. Choose the correct word to complete the idiom: "Don't count your chickens before they _____." A. Fly B. Hatch C. Cluck D. Roost (Answer: B)
12. What is the opposite of "courageous"? A. Fearful B. Strong C. Brave D. Confident (Answer: A)
13. Which sentence is in the past perfect tense? A. She will go to the store later. B. They were watching a movie. C. He had already finished his homework. D. I am reading a book. (Answer: C)



14. What is the correct comparative form of "good"? A. Gooder B. Better C. Best D. Weller (Answer: B)
15. Identify the adverb in the sentence: "She spoke softly." A. She B. Spoke C. Softly D. Spoke softly (Answer: C)
16. Which of these words is spelled correctly? A. Occasionnal B. Occasional C. Occassional D. Occational (Answer: B)
17. What is the plural of "knife"? A. Knifes B. Knive C. Knifves D. Knives (Answer: D)
18. In the sentence, "The cat chased its tail," what is the pronoun? A. The B. Cat C. Chased D. Its (Answer: D)
19. What is the correct spelling of the word meaning "a sudden, violent, and illegal seizure of power"? A. Coupe B. Coup C. Koop D. Coop (Answer: B)
20. Which of these sentences contains a simile? A. The night was as dark as coal. B. The river flowed silently. C. He ran like the wind. D. The stars twinkled in the sky. (Answer: C)



Baburao Patuil College of Arts and Science, Angar

Academic Year 2022-23

English Advanced and Slow Learner

Date-04/09/2022

Mark-20

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Baburao patil college of arts and science angar
B.Sc-I-2022-23

Advanced And Slow Learners

Sr.No	Student Full Name	Obl Mark	Out of
1	JAGTAP PRIYANKA BALAJI	19	20
2	PATIL SRUSHTI KIRAN	18	20
3	GAVHANE VRUSHALI MOHAN	17	20
4	SATHE HARSHADA HARISHCHANDRA	16	20
5	MULANI NIHAL MANJUR	15	20
6	BODAKE DHANASHRI DHANAJI	16	20
7	SHINDE SANIKA SUDHIR	17	20
8	SHINDE SANIKA ABARAO	18	20
9	NAGTILAK DHANASHREE SANTOSH	19	20
10	NAKATE VAISHNAVI ANKUSH	18	20
11	LOKHANDE ASHWINI JITENDRA	19	20
12	GUND VIVEK GOPINATH	17	20
13	BHOSALE VAIBHAV GANESH	16	20
14	CHAUDHARI SHUBHAM DATTATRAY	15	20
15	CHAUDHARI ROHIT BABASAHEB	18	20
16	GUND AJINKYA DATTATRAY	19	20
17	UBALE AVARJIT GORAKH	16	20
18	KADAM GAYATRI MADHUKAR	15	20
19	CHAVAN PRATIKSHA BHAGWAT	17	20
20	BARBOLE HANUMANT ANIL	16	20
21	KRUPAL RUTUJA SANJAY	18	20
22	MAGAR SWAPNALI BABAN	15	20
23	KUMBHAR SUPRIYA RAMHARI	17	20
24	GALANDE CHAITANYA KAMALAKAR	19	20
25	KOLEKAR ANIKET SHRIKRUSHNA	19	20
26	MALI DHANASHRI BALU	18	20
27	MORE SARIKA LAXMAN	17	20
28	MULANI MUSKAN RAJU	16	20
29	KALE SAGAR MACHINDRA	15	20
30	ADSULKAR RADHA LAXMAN	18	20
31	BOBADE TANVI MAHADEV	19	20
32	TAMBOLI AMIR RAJU	17	20
33	GUND SAURABH SUNIL	15	20
34	SHENDAGE SOHAM MADANRAO	18	20
35	MALI PRATIKSHA VASUDEV	19	20
36	INGALE SAI RAMIDAS	16	20
37	MANE VISHAKA SIDDHESHWAR	15	20
38	LONDHE RUSHIKESH SANTOSH	17	20
39	GAIKWAD KAJAL RAJKUMAR	19	20
40	DESHMUKH SUSHANT SAJJANRAO	16	20
41	NAMDE PRACHI ISHWAR	18	20
42	JAGTAP VIVEK MADHUKAR	19	20
43	KATKAR ASHWINI VILAS	15	20
44	VIDYAGAJ KARAN SHIVAJI	16	20
45	JADHAV MANISHA BALU	17	20
46	LONDHE VAIBHAV HANUMANT	18	20



47	PETHE RAJSINGH BHARAT	15	20
48	CHOPADE SAKSHI JYOTIRAM	16	20
49	WARGAD PRATIKSHA DHANAJI	18	20
50	MANE AASHARANI RAMESH	19	20
51	SAWANT KOMAL MAHADEV	17	20
52	CHAVAN MAYURI BRAMHADEV	19	20
53	GUND BHAGYASHRI NAGNATH	16	20
54	SUTAR SUPRIYA SANJAY	16	20
55	GUND SAURABH SURESH	17	20
56	WAGHMODE GAJANAN RAJENDRA	19	20
57	VHANMANE ROHAN RAHUL	15	20
58	THORAT MAYUR GAUTAM	17	20
59	BHOSALE VIJAY DADARAO	18	20
60	JADHAV ABOLI BAPUSAHEB	19	20
61	KAVITAKE ADITYA DAYANAND	17	20
62	LONDHE POOJA CHANDRAKANT	16	20
63	GAVHANE VAISHNAVI VIKAS	15	20
64	GAVALI SHAILAJA SHAHAJI	19	20
65	GAVALI PUJA NANA	18	20
66	NAMADE ADITYA ANKUSH	17	20
67	UNHALE DATTATRAY DHARMA	16	20
68	CHAVAN RAMKRUSHNA VITTHAL	15	20
69	ZENDAGE GANESH MALLIKARJUN	17	20
70	DHARME SURAJ SARJERAO	15	20
71	GADE VIJAY SANJAY	17	20
72	THITE PRASAD DEVIDAS	19	20
73	ADALINGE SHRADDHA HARIDAS	19	20
74	PETHE SAMARTH GANESH	17	20
75	PAWAR ROHAN LAXMAN	18	20
76	SHINDE AKASH NETAJI	16	20
77	MAHABOLE SANJAY SANJAY	15	20
78	DIXIT VIVEK BAPU	19	20
79	SURVE PRUTHVIRAJ SUNIL	17	20
80	KAVITAKE SUSHANT SHRIKANT	18	20
81	MANE PANDURANG AMBADAS	19	20
82	MASKE SUMIT DHANAJI	15	20
83	GAVALI PRATIK VISHNU	17	20
84	SHEMBADE PRAVIN TUKARAM	19	20
85	BANDGAR AJAY BAHIRAPPA	18	20
86	MALI BHARATI LAHU	18	20
87	BAGWAN SHEHBAJ HAJU	16	20
88	SHAIKH SAHIL SHAHIR	15	20
89	GUND JAYDEEP RAJENDRA	16	20
90	KUMBHAR ANUJ PRAKASH	17	20
91	MANE BAPUSAHEB SHAHU	16	20
92	KHANDARE SHUBHAM SIDDHESHWAT	17	20
93	BHANGE TEJAS ARUN	18	20
94	DUCHAL VINAYAK BALU	19	20
95	PATIL SANKET SHARAD	17	20
96	GADEKAR AJINKYA SANJAY	16	20

