

SSES Amravati's Science Collge, Congress Nagar, Nagpur

Department of Chemistry

Internal Assessment Record-PG- (CIE)-2021-22

Class	Paper	Teacher Name	Sign
Sem-I	Paper-I	Dr. R. S. Awchat	Rupesh
	Paper-II	Megha Tabhane	Megha
	Paper-III	Shivani R. Sharma	Shivani
	Paper-IV	Dr. S. J. Kene	Skory
Sem-II	Paper-I	Pranod Bhojar	Pranod
	Paper-II	Megha Tabhane	Megha
	Paper-III	Shivani R. Sharma	Shivani
	Paper-IV	Dr. S. J. Kene	Skory
Sem-III	Paper-I	Megha Tabhane	Megha
	Paper-II	Dr. R. S. Awchat	Rupesh
	Paper-III	Dr. S. J. Kene	Skory
	Paper-IV	Shivani R. Sharma	Shivani
Sem-IV	Paper-I	Pranod Bhojar	Pranod
	Paper-II	Megha Tabhane	Megha
	Paper-III	Dr. S. J. Kene	Skory
	Paper-IV	Shivani R. Sharma	Shivani




 Professor & Head
 Department of Chemistry,
 Shri Shivaji Science College
 Congress Nagar, Nagpur

SSES Amravati's Science College, Congress Nagar Nagpur
Department of Chemistry

M.Sc Sem I- 2021-22 Total Marks: -20

Paper I (Inorganic Chemistry)


Unit Test No- 1 & 2 Mark list

Teacher Name: Dr. R. S. Awchat

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	AAKANSHA RAJKUMAR DANDEWAR	08	04	04	16
2		Ku	AASTHA RUSHIPAL PATLE	09	04	04	17
3			ADITYA ASHOK GADPAYLE	08	04	04	16
4			ADITYA GOPAL SHRIVASTAVA	08	04	04	16
5			ADITYA TEJRAM UKE	10	05	05	20
6			AMEYA RAMESH DHORE	10	05	05	20
7		Ku	BHAGYASHREE SHIVSHANKAR BOKDE	10	04	04	18
8		Ku	DIKSHA DILICHAND GEDAM	10	04	04	18
9		Ku	HIMANI VIJAY BORKAR	09	04	04	17
10		Ku	MAITHILI MANOJ KANCHANWAR	10	05	05	20
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12		Ku	NAYNA OMPRAKASH GURJAR	07	05	03	15
13		Ku	NISHANT BHOJRAJ DHOBALE	10	05	05	20
14		Ku	PANKAJA DILIP DAKHOLE	08	04	04	18
15		Ku	PRIYANKA RAJENDRA PHARANDE	08	04	04	18
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17		Ku	SAKSHI ANAND NAGDEVE	10	05	05	20
18		Ku	SAKSHI ARUN IRASKAR	10	05	05	20
19		Ku	SANIYA AMINBEG MIRZA	05	05	05	15
20		Ku	SHIVANI DATTATRAY RAUT	10	05	04	19
21		Ku	SONALI PRAKASH JOGI	10	05	05	20
22		Ku	SONIYA ANIL MENDHE	10	05	04	19
23			SUNIL CHANDRASHEKHAR JAMBHORE	10	05	04	19
24			SWASTIC SANJAY NANDANWAR	10	05	05	20
25		Ku	TRIVENI RAVINDRA FULKAR	10	05	05	20
26			VISHAL RAJKUMAR KHARCHWAL	10	04	04	18

Signature




 Head
 Department of Chemistry,
 S.S.E.S. Amravati's Science College,
 Congress Nagar, Nagpur.

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

Exam Event: WINTER 2021

User Name: All Users

Course: M. Sc. (CHEMISTRY)(with Credits) - Regular-REGULAR-F.Y.MSCCHEM-First Semester

Paper: Paper 1: Inorganic Chemistry (1T1)

Theory- Lectures-College Assessment

Max Marks: 20

Paper Wise Mark List (Against Seat Number)

Seat Number	Examiner Marks	Seat Number	Examiner Marks	Seat Number	Examiner Marks
570950	16	570951	17	570952	16
570953	16	570954	20	570955	20
570956	18	570957	18	570958	17
570959	20	570960	20	570961	15
570962	20	570963	18	570964	18
570965	18	570966	20	570967	20
570968	15	570969	19	570970	20
570971	19	570972	19	570973	20
570974	20	570975	18		

Signature:

Name:

Designation:

Date:

Signature:

Skeni

Name: Dr. S. J. Kenu

Designation: Assistant Professor

Date: 25/03/2022

Signature:

[Handwritten Signature]

Name: Dr. R. V. Khore

Designation: Professor

Date: 25.3

DATA EXPORTED DATE: DATA IS NOT YET EXPORTED

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem I

Theory (Inorganic Chemistry)

Session :2021-22

Unit Test

Total Mark's -20

Attempt Any 4

Q.1. Discuss the shape of the following Molecules using VSEPR theory

(i) ICl_2^-

(ii) SF_4

(iii) PF_6^-

5

Q.2. Describe d-orbital splitting in trigonal bipyramid complexes. Why complexes of d1 to d4 configuration are high spin only ?

5

Q.3. Discuss Jahn-Teller effect in octahedral complexes. Why is it stronger in eg than t2g group orbitals ?

5

Q.4. What is Bent's Rule? Using it, explain why bond angle decreases with increasing p-orbital character.

5

Q.5. Acid hydrolysis proceeds through dissociative mechanism. Explain it on the basis of experimental evidences.

5

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem I

Theory (Inorganic Chemistry)

Session :2021-22

Assignment

Q.1. What is Chelate ? Why are Chelates more stable than simple complexes ? Explain on the basis of thermodynamic parameters

Q.2. What is SN1CB mechanism ? Explain the mechanism of base hydrolysis of $[\text{Co}(\text{en})_2\text{NH}_3\text{Cl}]^{2+}$ complex ion.

Q.3 Discuss structure and bonding in Decaborane-14.

Q.4 What are Metalloboranes ? How are they synthesized from boranes ?

Q.5. Sketch the polyhedral structures of following molecules :—

(i) nido- B_5H_9

(ii) nido-2-CB B_5H_9

(iii) closo-1, 5-C $2\text{B}_3\text{H}_5$

(iv) closo-1, 2-C $2\text{B}_5\text{H}_7$ and

(v) closo-1, 2-C $2\text{B}_{10}\text{H}_{12}$.

Q.6. What is meant by dicarbollide anion ? How are metallocarboranes of Fe(II) and Fe(III) obtained from it ?

Q.7. What is Styx Number ? Discuss its utility to describe the structure of boranes with suitable examples.

Q.8. Discuss formation of quadruple bond on the basis of MO theory in $\text{Mo}_2\text{Cl}_8^{4-}$ ion.

Q.9. What are boranes ? Give its classification with its general formulae.

Q.10. What is stepwise and overall stability constant ? Explain their relation with examples.

SSES Amravati's Science College, Congress Nagar Nagpur
Department of Chemistry

M.Sc Sem I- 2021-22 Total Marks: -20

Paper II (Organic Chemistry)

Unit Test No- 1 &2 Mark list

Teacher Name: Megha Tabhane

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	AAKANSHA RAJKUMAR DANDEWAR	08	04	04	16
2		Ku	AASTHA RUSHIPAL PATLE	09	04	04	17
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 Head of
 Department of Chemistry
 S.S.S. Amravati's Science C.,
 Congress Nagar, Nagp.

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

Exam Event: WINTER 2021

User Name: All Users

Course: M. Sc. (CHEMISTRY)(with Credits) - Regular-REGULAR-F.Y.MSCCHEM-First Semester

Paper: Paper 2: Organic Chemistry (1T2)

Theory- Lectures-College Assessment

Max Marks: 20

Paper Wise Mark List (Against Seat Number)

Seat Number	Examiner Marks	Seat Number	Examiner Marks	Seat Number	Examiner Marks
570950	16	570951	17	570952	16
570953	16	570954	20	570955	20
570956	18	570957	17	570958	18
570959	20	570960	20	570961	15
570962	20	570963	19	570964	18
570965	17	570966	20	570967	20
570968	16	570969	19	570970	20
570971	20	570972	19	570973	20
570974	20	570975	18		

Signature:	Signature: <i>S.Kone</i>	Signature: <i>R.V.Khoje</i>
Name:	Name: Dr. S.J. Kone	Name: Dr. R.V.Khoje
Designation:	Designation: Assistant Professor	Designation: Professor
Date:	Date: 25/03/2022	Date: 25.3.

DATA EXPORTED DATE: DATA IS NOT YET EXPORTED

Page 2 of 2

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem I

Theory (ORGANIC CHEMISTRY)

Session :2021-22

Unit Test -I

Total Mark's -20

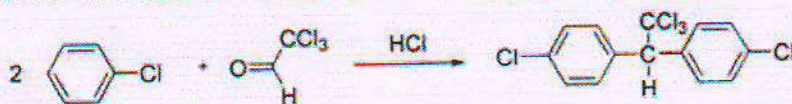
Teacher's Name: Sukanya B. mishra

Time: -1 hr

5 marks each

ATTEMPT ANY FOUR

1. Write a suitable mechanism of the following reactions.



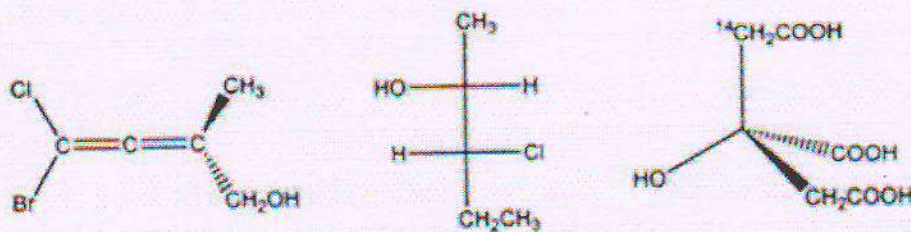
2. Explain the role of cyclodextrin as drug carrier with example.

3. Explain the following terms with suitable example.

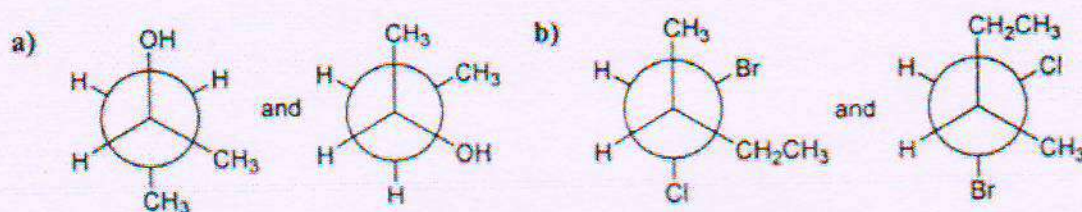
i) catenanes

ii) rotaxanes.

4. Assign a configuration R or S to each of these compounds.



5. Are The following pairs are identical, enantiomers, diastereomers or constitutional isomers?



SSES Amt's Science College, Congress Nagar, Nagpur

Department of Chemistry

M.Sc. Chemistry Sem I

Theory (ORGANIC CHEMISTRY)

Session :2021-22

Assignment

Total Mark's -20

Teacher's Name: Sukanya B. Mishra

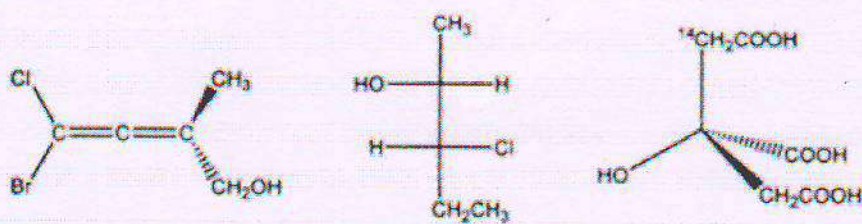
5 marks each

ATTEMPT ANY FOUR

1. Explain addition to carbon carbon multiple bonds.
2. Explain the following terms with suitable example.
 - i) catenanes
 - ii) rotaxanes.
3. assign a configuration R or S to each of these compounds.



4. write a suitable mechanism of the following reactions.



SSES Amravati's Science College, Congress Nagar Nagpur
Department of Chemistry

M.Sc Sem I- 2021-22 Total Marks: -20

Paper III (Physical Chemistry)

Unit Test No- 1 &2 Mark list

Teacher Name: Shivani Sharma

Sr. No	Roll No.		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	AAKANSHA RAJKUMAR DANDEWAR	09	04	04	17
2		Ku	AASTHA RUSHIPAL PATLE	10	04	04	18
3			ADITYA ASHOK GADPAYLE	08	04	04	16
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13		Ku	NISHANT BHOJRAJ DHOBALE	10	05	05	20
14		Ku	PANKAJA DILIP DAKHOLE	10	05	04	19
15		Ku	PRIYANKA RAJENDRA PHARANDE	10	04	04	18
16		Ku	SADNYA ARUN BHADANG	09	04	04	17
17		Ku	SAKSHI ANAND NAGDEVE	10	05	05	20
18		Ku	SAKSHI ARUN IRASKAR	10	05	05	20
19		Ku	SANIYA AMINBEG MIRZA	08	04	04	16
20		Ku	SHIVANI DATTATRAY RAUT	10	05	04	19
21		Ku	SONALI PRAKASH JOGI	10	05	05	20
22		Ku	SONIYA ANIL MENDHE	10	05	05	20
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24			SWASTIC SANJAY NANDANWAR	10	05	05	20
25		Ku	TRIVENI RAVINDRA FULKAR	10	05	05	20
26			VISHAL RAJKUMAR KHARCHWAL	10	04	04	18

Shivani

Shivani

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

Exam Event: WINTER 2021

User Name: All Users

Course: M. Sc. (CHEMISTRY)(with Credits) - Regular-REGULAR-F.Y.MSCCHEM-First Semester

Paper: Paper 3: Physical Chemistry (1T3)

Theory- Lectures-College Assessment

Max Marks: 20

Paper Wise Mark List (Against Seat Number)

Seat Number	Examiner Marks	Seat Number	Examiner Marks	Seat Number	Examiner Marks
570950	17	570951	18	570952	16
570953	16	570954	20	570955	20
570956	18	570957	18	570958	16
570959	20	570960	20	570961	15
570962	20	570963	19	570964	18
570965	17	570966	20	570967	20
570968	16	570969	19	570970	20
570971	20	570972	19	570973	20
570974	20	570975	18		

Signature:

Signature:

Signature:

Name:

Name: Dr. S. J. Keri

Name: Dr. R. V. Khopre

Designation:

Designation: Assistant professor

Designation: Professor

Date:

Date: 25/03/2022

Date: 25-3

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem I

Theory (Physical Chemistry)

Session :2021-22

Unit Test

Total Mark's -20

Attempt Any 4

- Q.1. What is chemisorption? Discuss the various characteristics of chemisorption including its energy profile diagram. 5
- Q.2. What is critical Micelle concentration? Explain the effect of CMC on various properties of solution. 5
- Q.3. Discuss the Sedimentation method for the determination of molecular weight of Macromolecules. 5
- Q.4. Give the thermodynamic formulation of transition state theory. 5
- Q.5. Calculate the activation energy of a reaction whose rate constant is tripled by a 10°C rise in temperature in the vicinity of 27°C. 5

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem I

Theory (Physical Chemistry)

Session :2021-22

Assignment

- Q.1. For an ideal gas prove that dw is not perfect differential.
- Q.2. Explain two component systems forming solid solutions having congruent melting point.
- Q.3. What are various factors affecting CMC ?
- Q.4. Rate constants of a reaction are 1.6×10^{-3} and 1.625×10^{-2} at 10°C and 30°C . Calculate energy of activation.
- Q.5. Derive:
- (i) $(dS/dV)_T = \alpha/\beta$
- (ii) $(dS/dP)_T = -(dV/dT)_P$
- Q.6. Discuss and prove the unattainability of absolute zero from the third law of thermodynamics.
- Q.7. State Caratheodory's principle and prove its equivalence with Kelvin-Planck and Clausius statements of the second law of thermodynamics.
- Q.8. Describe Nernst heat theorem.
- Q.9. Show that, $(dH/dV)_T = \alpha T - 1/\beta$ where α and β are the coefficients of thermal expansion and isothermal compressibility respectively.
- Q.10. Derive Gibbs Duhem equation.

SSES Amravati's Science College, Congress Nagar Nagpur
Department of Chemistry

M.Sc Sem I- 2021-22 Total Marks: -20

Paper IV (Analytical Chemistry)


Unit Test No- 1 & 2 Mark list

Teacher Name: Dr. S.J.Kene

Sr. No	Roll No.		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	AAKANSHA RAJKUMAR DANDEWAR	09	04	04	17
2		Ku	AASTHA RUSHIPAL PATLE	09	04	04	17
3			ADITYA ASHOK GADPAYLE	08	04	04	16
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6			AMEYA RAMESH DHORE	10	05	05	20
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 Head
 Department of Chemistry,
 S.S.S. Amravati's Science College,
 Congress Nagar, Nagpur.

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

Exam Event: WINTER 2021

User Name: All Users

Course: M. Sc. (CHEMISTRY)(with Credits) - Regular-REGULAR-F.Y.MSCCHEM-First Semester



Paper: Paper 4: Analytical Chemistry (1T4)

Theory- Lectures-College Assessment

Max Marks: 20

Paper Wise Mark List (Against Seat Number)

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570965	17	570966	20	570967	20
570968	16	570969	19	570970	20
570971	20	570972	19	570973	20
570974	20	570975	18		

Signature:	Signature: 	Signature: 
Name:	Name: Dr. S. J. Kene	Name: Dr. R. V. Khope
Designation:	Designation: Assistant Professor	Designation: Professor
Date:	Date: 25/03/2022	Date: 25-3

DATA EXPORTED DATE: DATA IS NOT YET EXPORTED

SSES Amt's Science College, Congress Nagar, Nagpur

Department of Chemistry

M.Sc. Chemistry Sem I

Theory (Analytical Chemistry)

Session :2021-22

Time: 1Hrs

Unit Test

Total Marks -20

All questions are compulsory and Each question carry 5 mark.

(a) Explain F-test for comparison of data. Determine if the precision levels of following two sets of observations differ significantly or not, if $F = 6.39$ at 95% confidence level

Set I 12.5 13.2 13.0 14.3 12.8

Set II 12.0 14.3 15.2 16.5 13.9

(b) What are the methods of validating accuracy of newly developed analytical method?

(c) What are classical methods of analysis? Explain its types with their basic principles.

(d) Explain the terms:

(i) Correlation coefficient

(ii) Least square method.

SSES Amt's Science College, Congress Nagar, Nagpur

Department of Chemistry

M.Sc. Chemistry Sem I

Theory (Analytical Chemistry)

Session :2021-22

Date:

Assignment

Total Marks -20

All questions are compulsory and Each question carry 5 mark.

- (a) How will you determine equivalent conductance at infinite dilution for weak electrolyte?
- (b) Explain the conductometric titration of oxalic acid with standard NaOH solution.
- (d) Explain working of (i) glass electrode and (ii) antimony electrode.
- (f) Define 'specific conductance' and 'equivalent conductance'. Explain the effect of dilution on them.

SSES Amravati's Science College, Congress Nagar, Nagpur
Department of Chemistry

M.Sc Sem II- 2021-22 Total Marks: -20

Paper I (Inorganic Chemistry)


Unit Test No- 1 &2 Mark list

Teacher Name: Pramod Bhojar

Sr. No	Roll	Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1	Ku	AAKANSHA RAJKUMAR DANDEWAR	09	04	04	17
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22	Ku	SONIYA ANIL MENDHE	10	05	04	19
23		SUNIL CHANDRASHEKHAR JAMBHORE	10	05	04	19
24		SWASTIC SANJAY NANDANWAR	09	04	04	17
25	Ku	TRIVENI RAVINDRA FULKAR	10	05	05	20
26		VISHAL RAJKUMAR KHARCHWAL	09	04	04	17

Pramod




 Head
 Department of Chemistry
 S.S.E.S. Am's Science Coll
 Congress Nagar, Nagpur

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

Exam Event: SUMMER 2022

User Name: All Users

Course: M. Sc. (CHEMISTRY)(with Credits) - Regular-REGULAR-F.Y.MSCCHEM-Second Semester


Paper: Paper 5: Inorganic Chemistry (2T1)

Theory- Lectures-College Assessment

Max Marks: 20

Paper Wise Mark List (Against Seat Number)

Seat Number	Examiner Marks	Seat Number	Examiner Marks	Seat Number	Examiner Marks
545001	17	545002	17	545003	17
545004	17	545005	19	545006	20
545007	18	545008	17	545009	17
545010	19	545011	20	545012	17
545013	17	545014	17	545015	17
545016	17	545017	17	545018	17
545019	17	545020	17	545021	20
545022	19	545023	19	545024	17
545025	20	545026	17		

Signature: <u>Sikam</u>	Signature: 	Signature:
Name: <u>Dr. S. J. Kene</u>	Name: <u>Dr. R.V. Khopre</u>	Name:
Designation: <u>Asst. Professor</u>	Designation: <u>Professor</u>	Designation:
Date: <u>20/07/22</u>	Date: <u>20/7</u>	Date:

DATA EXPORTED DATE: DATA IS NOT YET EXPORTED

Report generated by C16639 on Tuesday, July 19, 2022, 1:43:14 PM

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem II

Theory (Inorganic Chemistry)

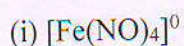
Session :2021-22

Unit Test

Total Mark's -20

Attempt Any 4

Q.1. What is EAN rule? Calculate EAN of metal in the following. Which of these obeyed EAN rule?



5

Q.2. Write a note on Wilkinson catalyst.

5

Q.3. Explain the structure and bonding in metal dinitrogen complexes.

5

Q.4. Explain any three methods of preparation of metal nitrosyl complexes.

5

Q.5. Write a short note on charge transfer spectra.

5

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem II

Theory (Inorganic Chemistry)

Session :2021-22

Assignment

- Q.1. Explain the structure and bonding in metal dinitrogen complexes.
- Q.2. Discuss the structure and bonding in metal nitrosyl with respect to formation of σ and π bonds.
- Q.3. Write a note on Wilkinson catalyst.
- Q.4. Discuss the vibrational spectra of metal carbonyls for bonding and structural elucidation.
- Q.5. Write a note on cross reaction.
- Q.6. What is trans effect ? Give it one application. Discuss theory which explains the following order of trans effect : $F^- < Cl^- < Br^- < I^-$
- Q.7. Discuss high spin and low spin crossover phenomenon in complexes with suitable examples.
- Q.8. Draw the structure of : (i) $Os_3(CO)_{12}$ and (ii) $Os_4(CO)_{16}$.
- Q.9. Write a short note on charge transfer spectra.
- Q.10. Explain any three method of preparation of metal nitrosyl complexes.

SSES Amravati's Science College, Congress Nagar Nagpur
Department of Chemistry

M.Sc Sem II- 2021-22 Total Marks: -20

Paper II (Organic Chemistry)

Unit Test No- 1 & 2 Mark list

Teacher Name: Megha Tabhane

Sr. No	Roll	Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1	Ku	AAKANSHA RAJKUMAR DANDEWAR	09	04	04	17
2	Ku	AASTHA RUSHIPAL PATLE	09	04	04	17
3		ADITYA ASHOK GADPAYLE	09	04	04	17
4		ADITYA GOPAL SHRIVASTAVA	09	04	04	17
5		ADITYA TEJRAM UKE	10	05	04	19
6		AMEYA RAMESH DHORE	10	05	05	20
7	Ku	BHAGYASHREE SHIVSHANKAR BOKDE	10	04	04	18
8	Ku	DIKSHA DILICHAND GEDAM	09	04	04	17
9	Ku	HIMANI VIJAY BORKAR	09	04	04	17
10	Ku	MAITHILI MANOJ KANCHANWAR	10	05	04	19
11	Ku	MANISHA VISHNU SHARMA	10	05	05	20
12	Ku	NAYNA OMPRAKASH GURJAR	09	04	04	17
13	Ku	NISHANT BHOJRAJ DHOBAL	09	04	04	17
14	Ku	PANKAJA DILIP DAKHOLE	09	04	04	17
15	Ku	PRIYANKA RAJENDRA PHARANDE	09	04	04	17
16	Ku	SADNYA ARUN BHADANG	09	04	04	17
17	Ku	SAKSHI ANAND NAGDEVE	09	04	04	17
18	Ku	SAKSHI ARUN IRASKAR	09	04	04	17
19	Ku	SANIYA AMINBEG MIRZA	09	04	04	17
20	Ku	SHIVANI DATTATRAY RAUT	09	04	04	17
21	Ku	SONALI PRAKASH JOGI	10	05	05	20
22	Ku	SONIYA ANIL MENDHE	10	05	04	19
23		SUNIL CHANDRASHEKHAR JAMBHORE	10	05	04	19
24		SWASTIC SANJAY NANDANWAR	09	04	04	17
25	Ku	TRIVENI RAVINDRA FULKAR	10	05	05	20
26		VISHAL RAJKUMAR KHARCHWAL	09	04	04	17




 Head
 Department of Chemistry
 S.S.E.S. Am's Science Coll
 Congress Nagar, Nagpur

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

Exam Event: SUMMER 2022

User Name: All Users

Course: M. Sc. (CHEMISTRY)(with Credits) - Regular-REGULAR-F.Y.MSCCHEM-Second Semester



Paper: Paper 6: Organic Chemistry (2T2)

Theory- Lectures-College Assessment

Max Marks: 20

Paper Wise Mark List (Against Seat Number)

Seat Number	Examiner Marks	Seat Number	Examiner Marks	Seat Number	Examiner Marks
545001	17	545002	17	545003	17
545004	17	545005	19	545006	20
545007	18	545008	17	545009	17
545010	19	545011	20	545012	17
545013	17	545014	17	545015	17
545016	17	545017	17	545018	17
545019	17	545020	17	545021	20
545022	19	545023	19	545024	17
545025	20	545026	17		

Signature: 	Signature: 	Signature:
Name: Dr. S. J. Kene	Name: Dr. S. W. K. Khar	Name:
Designation: Asst. Professor	Designation: Professor	Designation:
Date: 20/07/22	Date: 20/7	Date:

DATA EXPORTED DATE: DATA IS NOT YET EXPORTED

Report generated by C16639 on Tuesday, July 19, 2022, 1:54:16 PM

SSES Amt's Science College, Congress Nagar, Nagpur

Department of Chemistry

M.Sc. Chemistry Sem II

Theory (ORGANIC CHEMISTRY)

Session :2021-22

Unit Test -I

Total Mark's -20

Teacher's Name: Sukanya B. mishra

Time: -1 hr 5 marks each

ATTEMPT ANY FOUR

- 1.state and explain stereo chemical orientation of hydroboration reaction.
- 2.comment on following;
 - i)aldol condensation
 - ii)addition of Grignard reagents
- 3.Give the mechanism of Perkin reaction.
- 4.Explain Regio and Chemo selectivity involving in hydrogenation of double bonds.
- 5.state the mechanistic details of Mannich reaction.

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Department of Chemistry

M.Sc. Chemistry Sem II

Theory (ORGANIC CHEMISTRY)

Session :2021-22

Assignment

Total Mark's -20marks

Teacher's Name: Sukanya B. mishra

5 marks each

Date: -

ATTEMPT ANY FOUR

- 1) Explain E1, E2 and E1CB reaction with mechanism.
- 2) Discuss Hoffmann saytfezz rule in brief.
- 3) Explain benzoin reaction with mechanism with example.
- 4) Discuss classification of electrophilic reaction.
- 5) Discuss pinacol pinacolone reaction with example.
- 6) Discuss wagner meerwein with example.
- 7) Explain stobbe reaction with mechanism.
- 8) Describe hydrolysis of esters and amide.
- 9) Explain hydroboration and Michael reaction.
- 10) Describe Favourski rearrangement with mechanism

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Department of Chemistry

M.Sc Sem II- 2021-22 Total Marks: -20

Paper III (Physical Chemistry)

Unit Test No- 1 &2 Mark list

Teacher Name: Shivani sharma

Sr. No	Roll	Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1	Ku	AAKANSHA RAJKUMAR DANDEWAR	09	04	04	17
2	Ku	AASTHA RUSHIPAL PATLE	09	04	04	17
3		ADITYA ASHOK GADPAYLE	09	04	04	17
4		ADITYA GOPAL SHRIVASTAVA	09	04	04	17
5		ADITYA TEJRAM UKE	10	05	04	19
6		AMEYA RAMESH DHORE	10	05	05	20
7	Ku	BHAGYASHREE SHIVSHANKAR BOKDE	10	05	04	19
8	Ku	DIKSHA DILICHAND GEDAM	09	04	04	17
9	Ku	HIMANI VIJAY BORKAR	09	04	04	17
10	Ku	MAITHILI MANOJ KANCHANWAR	10	05	04	19
11	Ku	MANISHA VISHNU SHARMA	10	05	05	20
12	Ku	NAYNA OMPRAKASH GURJAR	09	04	04	17
13	Ku	NISHANT BHOJRAJ DHOBALE	09	04	04	17
14	Ku	PANKAJA DILIP DAKHOLE	09	04	04	17
15	Ku	PRIYANKA RAJENDRA PHARANDE	09	04	04	17
16	Ku	SADNYA ARUN BHADANG	09	04	04	17
17	Ku	SAKSHI ANAND NAGDEVE	09	04	04	17
18	Ku	SAKSHI ARUN IRASKAR	09	04	04	17
19	Ku	SANIYA AMINBEG MIRZA	09	04	04	17
20	Ku	SHIVANI DATTATRAY RAUT	09	04	04	17
21	Ku	SONALI PRAKASH JOGI	10	05	05	20
22	Ku	SONIYA ANIL MENDHE	10	05	04	19
23		SUNIL CHANDRASHEKHAR JAMBHORE	10	05	04	19
24		SWASTIC SANJAY NANDANWAR	09	04	04	17
25	Ku	TRIVENI RAVINDRA FULKAR	10	05	05	20
26		VISHAL RAJKUMAR KHARCHWAL	09	04	04	17

Shivani S



Shivani S
Head
Department of Chemistry,
S.S.E.S. Am's Science College,
Congress Nagar, Nagpur.

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

Exam Event: SUMMER 2022

User Name: All Users

Course: M. Sc. (CHEMISTRY)(with Credits) - Regular-REGULAR-F.Y.MSCCHEM-Second Semester


Paper: Paper 7: Physical Chemistry (2T3)

Theory- Lectures-College Assessment

Max Marks: 20

Paper Wise Mark List (Against Seat Number)

Seat Number	Examiner Marks	Seat Number	Examiner Marks	Seat Number	Examiner Marks
545001	17	545002	17	545003	17
545004	17	545005	19	545006	20
545007	19	545008	17	545009	17
545010	19	545011	20	545012	17
545013	17	545014	17	545015	17
545016	17	545017	17	545018	17
545019	17	545020	17	545021	20
545022	19	545023	19	545024	17
545025	20	545026	17		

Signature: <u>Sany</u>	Signature: 	Signature:
Name: Dr. S. J. Kene	Name: Dr. S. J. Kene	Name:
Designation: Asst. Professor	Designation: Professor	Designation:
Date: 20/07/22	Date: 20/7	Date:

DATA EXPORTED DATE: DATA IS NOT YET EXPORTED

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SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem II

Theory (Physical Chemistry)

Session :2021-22

Unit Test

Total Mark's -20

Attempt Any 4

- Q.1. For a particular in a 3D box with $L_x = L_y = L_z$ draw the first six energy levels and indicate the degeneracy, if any. 5
- Q.2. derive the expression for energy of rigid rotor. 5
- Q.3. Discuss the Debye-Hückel theory of strong electrolyte. 5
- Q.4. Discuss the thermodynamic criteria for irreversibility in terms of Energy, Enthalpy, Entropy and Gibbs free energy. 5
- Q.5. Derive the time of Clausius inequality and discuss how it is correct from traditional form of Clausius's inequality. 5

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Department Of Chemistry

M.Sc. Chemistry Sem II

Theory (Physical Chemistry)

Session :2021-22

Assignment

- Q.1. Derive Bragg's equation with neat sketch of diffraction system.
- Q.2. Write a note on Ionization chamber counter.
- Q.3. Describe principle and applications of NAA.
- Q.4. Compare MB, BE and FD statistical distribution laws with respect to types of subatomic particles and their behaviour.
- Q.5. Write short notes on : (a) Colour centers (b) Hexagonal closest packing (c) Cubic Closest packing.
- Q.6. When a certain crystal was studied by the Braggs technique using X-rays of wavelength 229 pm, an X-ray reflection was observed at an angle of $23^{\circ}20'$
- (a) What is the corresponding interplaner spacing ?
- (b) When another X-ray source was used, a reflection was observed at $15^{\circ}26'$. What was the wavelength of these X-rays ?
- Q.7. What are Miller indices ? If the three planes have intercepts : (a) x, y, ∞ ; (b) $2x, 2y, \infty$; and (c) $3x, 3y, \infty$ along crystallographic axes determining the crystal system, give the corresponding Miller indices of these planes.
- Q.8. Show that a crystal can never have five-fold rotation axis if it has to satisfy the translational symmetry.
- Q.9. Write a note on Lagrange's method of undetermined multipliers.
- Q.10. Explain the phenomena of radioactive decay and equilibrium.

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Department of Chemistry

M.Sc Sem II- 2021-22 Total Marks: -20

Paper IV (Analytical Chemistry)


Unit Test No- 1 &2 Mark list

Teacher Name: Dr. S.J. Kene

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	AAKANSHA RAJKUMAR DANDEWAR	09	04	04	17
2		Ku	AASTHA RUSHIPAL PATLE	09	04	04	17
3			ADITYA ASHOK GADPAYLE	09	04	04	17
4			ADITYA GOPAL SHRIVASTAVA	09	04	04	17
5			ADITYA TEJRAM UKE	10	05	04	19
6			AMEYA RAMESH DHORE	10	05	05	20
7		Ku	BHAGYASHREE SHIVSHANKAR BOKDE	10	05	04	19
8		Ku	DIKSHA DILICHAND GEDAM	09	04	04	17
9		Ku	HIMANI VIJAY BORKAR	09	04	04	17
10		Ku	MAITHILI MANOJ KANCHANWAR	10	05	04	19
11		Ku	MANISHA VISHNU SHARMA	10	05	05	20
12		Ku	NAYNA OMPRAKASH GURJAR	09	04	04	17
13		Ku	NISHANT BHOJRAJ DHOBALE	09	04	04	17
14		Ku	PANKAJA DILIP DAKHOLE	09	04	04	17
15		Ku	PRIYANKA RAJENDRA PHARANDE	09	04	04	17
16		Ku	SADNYA ARUN BHADANG	09	04	04	17
17		Ku	SAKSHI ANAND NAGDEVE	09	04	04	17
18		Ku	SAKSHI ARUN IRASKAR	09	04	04	17
19		Ku	SANIYA AMINBEG MIRZA	09	04	04	17
20		Ku	SHIVANI DATTATRAY RAUT	09	04	04	17
21		Ku	SONALI PRAKASH JOGI	10	05	05	20
22		Ku	SONIYA ANIL MENDHE	10	05	04	19
23			SUNIL CHANDRASHEKHAR JAMBHORE	10	05	04	19
24			SWASTIC SANJAY NANDANWAR	09	04	04	17
25		Ku	TRIVENI RAVINDRA FULKAR	10	05	05	20
26			VISHAL RAJKUMAR KHARCHWAL	09	04	04	17

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 Head
 Department of Chemistry
 S.S.S. Amravati's Science College
 Congress Nagar, Nagpur

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

Exam Event: SUMMER 2022

User Name: All Users

Course: M. Sc. (CHEMISTRY)(with Credits) - Regular-REGULAR-F.Y.MSCCHEM-Second Semester



Paper: Paper 8: Analytical Chemistry (2T4)

Theory- Lectures-College Assessment

Max Marks: 20

Paper Wise Mark List (Against Seat Number)

Seat Number	Examiner Marks	Seat Number	Examiner Marks	Seat Number	Examiner Marks
545001	17	545002	17	545003	17
545004	17	545005	19	545006	20
545007	19	545008	17	545009	17
545010	19	545011	20	545012	17
545013	17	545014	17	545015	17
545016	17	545017	17	545018	17
545019	17	545020	17	545021	20
545022	19	545023	19	545024	17
545025	20	545026	17		

Signature: 	Signature: 	Signature:
Name: Dr. S. J. Kene	Name: Dr. R. U. K. Chopra	Name:
Designation: Asst. Professor	Designation: Professor	Designation:
Date: 20/07/22	Date: 20-7	Date:

DATA EXPORTED DATE: DATA IS NOT YET EXPORTED

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SSES Amt's Science College, Congress Nagar, Nagpur

Department of Chemistry

M.Sc. Chemistry Sem II

Theory (Analytical Chemistry)

Session :2021-22

Time: 1Hrs

Unit Test

Total Marks -20

All questions are compulsory and Each question carry 5 mark.

- (a) Explain 'temperature programmed GC' and give its advantages.
- (b) Explain construction and working of electron capture detector.
- (c) Explain various types of columns and their advantages in HPLC.
- (d) What are Luminescence detectors in HPLC? Explain their working.

SSES Amt's Science College, Congress Nagar, Nagpur

Department of Chemistry

M.Sc. Chemistry Sem II

Theory (Analytical Chemistry)

Session :2021-22

Date:

Assignment

Total Marks -20

All questions are compulsory and Each question carry 5 mark.

- (a) Explain the application of polarography in DO estimation.
- (b) Explain the term 'diffusion current' in polarography. Give its utility.
- (c) Calculate diffusion coefficient for Pb^{2+} in polarography if:
id = 4.2 mA
m = 1.41 mg s⁻¹
t = 1.85 s
c = 1 mM.
- (f) Explain application of polarography in:
(i) Metal speciation
(ii) Coordination chemistry.

Class :- M. Sc. - I (I & II Sem)

Subject :- Analytical Chemistry

Shri Shivaji Education Society Amravati; Month

Science College, Congress Nagar, Nagpur.

Name of Teacher :-

Dr. S. J. Kene

2021 - 2022

Sr. No	Roll No	Students Full Name	Total upto last Month		Periods	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total		
			Deli	Att																						Current Month	Progressive Month	
1	Ku	AAKANSHA RAJKUMAR DANDEWAR				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Ku	AASTHA RUSHIPAL PATLE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3		ADITYA ASHOK GADPAYLE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4		ADITYA GOPAL SHRIVASTAVA				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5		ADITYA TEJRAM UKE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6		AMEYA RAMESH DHORE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Ku	BHAGYASHREE SHIVSHANKAR BOKDE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Ku	DIKSHA DILICHAND GEDAM				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	Ku	HIMANI VIJAY BORKAR				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Ku	MAITHILI MANOJ KANCHANWAR				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Ku	MANISHA VISHNU SHARMA				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Ku	NAYNA OMPRAKASH GURJAR				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13		NISHANT BHOJRAJ DHOBLE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Ku	PANKAJA DILIP DAKHOLE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Ku	PRIYANKA RAJENDRA PHARANDE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	Ku	SADNYA ARUN BHADANG				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	Ku	SAKSHI ANAND NAGDEVE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
18	Ku	SAKSHI ARUN IRASKAR				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	Ku	SANIYA AMINBEG MIRZA				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	Ku	SHIVANI DATTATRAY RAUT				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	Ku	SONALI PRAKASH JOGI				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	Ku	SONIYA ANIL MENDHE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	Ku	SUNIL CHANDRASHEKHAR JAMBHORE				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24		SWASTIK SANJAY NANDANWAR				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	Ku	TRIVENI RAVINDRA FULKAR				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
26		VISHAL RAJKUMAR KHARCHWAL				P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

Skony

Dr. S. J. Kene

SSES Amravati's Science College, Congress Nagar Nagpur
Department of Chemistry

M.Sc Sem III- 2021-22 Total Marks: -20

Paper I (Organic Chemistry Sp.-I)

Unit Test No- 1 & 2 Mark list

Teacher Name: Megha Tabhane

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	ADITISHASHIKANT AWALE	10	05	05	20
22		Ku	APEKSHA NANESHWAR CHOUDHARY	10	05	05	20
3		Ku	ASHWINI NANAKRAM BITLE	10	05	05	20
4		Ku	ASMIYA AAFREEN SHAHID PARVEZ ----	10	05	05	20
5		Ku	BABITA RAMDAS KAKDE	10	05	05	20
6		Ku	BHAGYASHRI CHANDRASHEKHAR	10	05	04	19
7			BHAVESH KISAN NEWARE	10	05	05	20
8		Ku	CHANDNI KISHOR CHOUDHARY	10	05	05	20
9		Ku	DIKSHA SURYAKANT CHANDEKAR	10	05	05	20
10		Ku	DIPALI SHANKAR JIBHAKATE	10	05	05	20
11			DURGESH RAMESH ADMACHI	09	04	04	17
12		Ku	GOURI ANILRAO BHOSLE	10	05	05	20
13		Ku	KIRTI CHAITRAM BODE	10	05	05	20
14			MOHIT KISHOR KHEDIKAR	09	04	04	17
15			NIKHIL RAMCHANDRA TONGE	10	05	05	20
16			PARISHRAM JAGDISH GAJBHIYE	09	04	04	17
17		Ku	PRAGATI BHOLESWAR TAPASE	10	05	05	20
18		Ku	PRAJAKTA CHANDRASHEKHAR FEDDEWAR	10	05	05	20
19		Ku	PRIYANKA DHANRAJ DHAMGAYE	10	05	05	20
20		Ku	RUCHITA DNYANESHWAR GECHODE	10	05	05	20
21		Ku	RUTUJASHYAM POTKAR	10	05	05	20
22		Ku	SAVITRI NARVADAPRASAD SONDIYA	10	05	05	20
23		Ku	SONALISUNIL BORKAR	09	04	04	17
24		Ku	SUKANYA BALIKARANPRASAD MISHRA	10	05	04	19
25		Ku	SUSHMA VILAS KSHIRSAGAR	10	05	05	20
26			TEJAS SHYAMSUNDAR HINGNEKAR	10	05	05	20




 Head
 Department of Chemistry,
 S.S.E.S. Amr's Science Col
 Congress Nagar, Nagpur

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

<https://www.nagpur.university>

Internal Report

Exam Name: THIRD SEMESTER M.Sc. (CHEMISTRY) (CBCS) PG

Subject Name: SPECIAL-I: ORGANIC CHEMISTRY

College Name: (100) SHRI SHIVAJI SCIENCE COLLEGE

Session: Winter-2021

Sr	Seat No	Enrollment	Student Name	Marks / Max-20
1	578582	20181025114476	ADITI SHASHIKANT AWALE	20
2	578583	20181011312331	APEKSHA NANESHWAR CHOUDHARY	20
3	578584	20181042402456	ASHWINI NANAKRAM BITLE	20
4	578585	20181033411845	ASMIYA AAFREEN SHAHID PARVEZ	20
5	578586	20181010703591	BABITA RAMDAS KAKDE	20
6	578587	20181000413105	BHAGYASHRI CHANDRASHEKHAR GAIKWAD	19
7	578588	20173025106012	CHANDANI KISHOR CHOUDHRY	20
8	578589	20181015405019	DIKSHA SURYAKANT CHANDEKAR	20
9	578590	20181040110750	DIPALI SHANKAR JIBHAKATE	20
10	578591	20181011312369	GOURI ANILRAO BHOSLE	20
11	578592	20181033285596	KIRTI CHAITRAM BODE	20
12	578593	20181011312698	PARISHRAM JAGDISH GAJBHIYE	17
13	578594	--	PRAGATI BHOLESWAR TAPASE	20
14	578595	20181011312473	PRAJAKTA CHANDRASHEKHAR FEDDEWAR	20
15	578596	20181000413166	PRIYANKA DHANRAJ DHAMGAYE	20
16	578597	20181011312512	RUCHITA DNYANESHWAR GECHODE	20
17	578598	20181011312520	RUTUJA SHYAM POTKAR	20
18	578599	20181010703702	SAVITRI NARVADAPRASAD SONDIYA	20
19	578600	20181000106956	SONALI SUNIL BORKAR	17
20	578601	20181015803336	SUKANYA BALIKARANPRASAD MISHRA	19
21	578602	20181015803341	SUSHMA VILAS KSHIRSAGAR	20
22	578603	20181045912921	BHAVESH KISAN NEWARE	20
23	578604	2015016600741486	DURGESH RAMESH ADMACHI	17
24	578605	20181011312688	MOHIT KISHOR KHEDIKAR	17
25	578606	20181030401484	NIKHIL RAMCHANDRA TONGE	20
26	578607	20181015405333	TEJAS SHYAMSUNDAR HINGNEKAR	20

Signature Of Examiner

nt Date & Time: 01-02-2022 01:38 PM

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem III

Theory (special I – organic)

Session :2021-22

Unit Test

Total Mark's -20

Time :-1 hr 5 marks each

ATTEMPT ANY FOUR

1. What are the norrish type 1 reactions? Give its mechanism.
2. What are the photo fries rearrangements? explain with suitable example
3. Explain transfer of excitation energy through singlet and triplet states.
4. Explain oxidation with PDC and reduction with NaBH_4 .
5. Discuss the following:
 - i)oxidation with KMnO_4 in alkaline and neutral medium
 - ii)oxidation of aldehyde with jones reagent.

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

**M.Sc. Chemistry Sem III
Theory (special I – organic)**

Session :2021-22

Assignment

- 1) Discuss the Baeyer villiger reaction.
- 2) Explain the photoreduction.
- 3) Explain in brief the diels alder reaction.
- 4) Discuss the woodward Hoffmann coorelation with mechanism.
- 5) Explain the sigmatropic rearrangement with mechanism.
- 6) Discuss sharpless asymmetric epoxidation.
- 7) Explain the ene reaction.
- 8) Discuss the hydrogenation.
- 9) Explain ozonolysis with example.
- 10) Explain the sulphur phosphorous ylide.

Class :- MSc Chemistry III Sem(II Year)
Theory / Practical

Science College, Congress Nagar, Nagpur.
2021-2022

Name of Teacher :-

Megha N. Tabhare
(Organic sp-I)

Sr. No	Roll	Students Full Name	Period	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
			Date	25/10/21	26/10/21	27/10/21	28/11/21	29/11/21	30/11/21	01/12/21	02/12/21	03/12/21	04/12/21	05/12/21	06/12/21	07/12/21	08/12/21	09/12/21	10/12/21	11/12/21	12/12/21	13/12/21	14/12/21	15/12/21
1	Ku	ADITI SHASHIKANT AWALE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2		APEKSHA NANESHWAR CHOUDHARY		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Ku	ASHWINI NAMAKRAM BITLE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ku	ASMIYA AAFREEN SHAHID PARVEZ ----		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Ku	BABITA RAMDAS KAKDE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Ku	BHAGYASHRI CHANDRASHEKHAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Ku	BHAVESH KISAN NEWARE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Ku	CHANDNI KISHOR CHOUDHARY		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	Ku	DIKSHA SURYAKANT CHANDEKAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Ku	DIPALI SHANKAR JIBHAKATE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Ku	DURGESH RAMESH ADMACHI		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Ku	GOURI ANILRAO BHOSLE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	Ku	KIRTICHAITRAM BODE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Ku	MOHIT KISHOR KHEDIKAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Ku	NIKHIL RAMCHANDRA TONGE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	Ku	PARISHRAM JAGDISH GAUBHIYE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	Ku	PRAGATI BHOLESWAR TAPASE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
18		PRAJAKTA CHANDRASHEKHAR FEDEWAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	Ku	PRYANKA DHANRAJ DHAMGAYE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	Ku	RUCHITA DIVYANESHWAR GECHODE		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	Ku	RUTUJASHYAM POTKAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	Ku	SAVITRI NARVADAPRASAD SONDIHYA		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	Ku	SONALISUNIL BORKAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	Ku	SUKANYA BALIKARANPRASAD MISHRA		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	Ku	SUSHMA VILAS KSHIRSAGAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
26	Ku	TEJAS SHYAMSUNNDAR HINGNEKAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

90% Attendance

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SSES Amravati's Science College, Congress Nagar Nagpur
Department of Chemistry

M.Sc Sem III- 2021-22 Total Marks: -20

Paper II (Organic Chemistry Sp.-II)

Unit Test No- 1 & 2 Mark list

Teacher Name: Dr. R.S.Awchat

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	ADITISHASHIKANT AWALE	10	05	05	20
2		Ku	APEKSHA NANESHWAR CHOUDHARY	10	05	05	20
3			ASHWINI NANAKRAM BITLE	10	05	05	20
4			ASMIYA AAFREEN SHAHID PARVEZ ----	10	05	05	20
5			BABITA RAMDAS KAKDE	10	05	05	20
6			BHAGYASHRI CHANDRASHEKHAR	10	05	04	19
7		Ku	BHAVESH KISAN NEWARE	10	05	05	20
8		Ku	CHANDNI KISHOR CHOUDHARY	10	05	05	20
9		Ku	DIKSHA SURYAKANT CHANDEKAR	10	05	05	20
10		Ku	DIPALI SHANKAR JIBHAKATE	10	05	05	20
11		Ku	DURGESH RAMESH ADMACHI	10	04	04	18
12		Ku	GOURI ANILRAO BHOSLE	10	05	05	20
13		Ku	KIRTICHAITRAM BODE	10	05	05	20
14		Ku	MOHIT KISHOR KHEDIKAR	08	04	04	16
15		Ku	NIKHIL RAMCHANDRA TONGE	08	04	04	16
16		Ku	PARISHRAM JAGDISH GAJBHIYE	09	04	04	17
17		Ku	PRAGATI BHOLESWAR TAPASE	10	05	05	20
18		Ku	PRAJAKTA CHANDRASHEKHAR FEDDEWAR	10	05	05	20
19		Ku	PRIYANKA DHANRAJ DHAMGAYE	10	05	05	20
20		Ku	RUCHITA DNYANESHWAR GECHODE	10	05	05	20
21		Ku	RUTUJASHYAM POTKAR	10	05	05	20
22		Ku	SAVITRI NARVADAPRASAD SONDIYA	10	05	05	20
23			SONALI SUNIL BORKAR	10	04	04	18
24			SUKANYA BALIKARANPRASAD MISHRA	10	05	04	19
25		Ku	SUSHMA VILAS KSHIRSAGAR	10	05	05	20
26			TEJAS SHYAMSUNDAR HINGNEKAR	10	05	05	20

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 Department of Chemistry
 S.S.E.S. Amravati's Science College
 Congress Nagar, Nagpur



RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

<https://www.nagpur.university>

Internal Report

Exam Name: THIRD SEMESTER M.Sc. (CHEMISTRY) (CBCS) PG

Subject Name: SPECIAL-II: ORGANIC CHEMISTRY

College Name: (100) SHRI SHIVAJI SCIENCE COLLEGE

Session: Winter-2021

Sr	Seat No	Enrollment	Student Name	Marks / Max-20
1	578582	20181025114476	ADITI SHASHIKANT AWALE	20
2	578583	20181011312331	APEKSHA NANESHWAR CHOUDHARY	20
3	578584	20181042402456	ASHWINI NANAKRAM BITLE	20
4	578585	20181033411845	ASMIYA AAFREEN SHAHID PARVEZ	20
5	578586	20181010703591	BABITA RAMDAS KAKDE	20
6	578587	20181000413105	BHAGYASHRI CHANDRASHEKHAR GAIKWAD	19
7	578588	20173025106012	CHANDANI KISHOR CHOUDHRY	20
8	578589	20181015405019	DIKSHA SURYAKANT CHANDEKAR	20
9	578590	20181040110750	DIPALI SHANKAR JIBHAKATE	20
10	578591	20181011312369	GOURI ANILRAO BHOSLE	20
11	578592	20181033285596	KIRTI CHAITRAM BODE	20
12	578593	20181011312698	PARISHRAM JAGDISH GAJBHIYE	17
13	578594	--	PRAGATI BHOLESWAR TAPASE	20
14	578595	20181011312473	PRAJAKTA CHANDRASHEKHAR FEDDEWAR	20
15	578596	20181000413166	PRIYANKA DHANRAJ DHAMGAYE	20
16	578597	20181011312512	RUCHITA DNYANESHWAR GECHODE	20
17	578598	20181011312520	RUTUJA SHYAM POTKAR	20
18	578599	20181010703702	SAVITRI NARVADAPRASAD SONDHIIYA	20
19	578600	20181000106956	SONALI SUNIL BORKAR	18
20	578601	20181015803336	SUKANYA BALIKARANPRASAD MISHRA	19
21	578602	20181015803341	SUSHMA VILAS KSHIRSAGAR	20
22	578603	20181045912921	BHAVESH KISAN NEWARE	20
23	578604	2015016600741486	DURGESH RAMESH ADMACHI	18
24	578605	20181011312698	MOHIT KISHOR KHEDIKAR	16
25	578606	20181030401484	NIKHIL RAMCHANDRA TONGE	20
26	578607	20181015405333	TEJAS SHYAMSUNDAR HINGNEKAR	20

Signature Of Examiner



nt Date & Time: 01-02-2022 01:42 PM

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem III

Theory (special II – organic)

Session :2021-22

Unit Test 1

Total Mark's -20

Time :-1 hr 5 marks each

ATTEMPT ANY FOUR

1. Discuss the classification of terpenoids along with isoprene rule.
2. Write the steps involved in the synthesis of haemoglobin.
3. Discuss the steps involved in the biosynthesis of camphor.
4. How is the structure of citral proved by degradation and its synthesis.
5. Comment on the following;
 - i) structure of geraniol
 - ii) functions of chlorophyll a and b

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem III

Theory (special II – organic)

Session :2021-22

Assignment

- 1) Give the synthesis of testosterone.
- 2) Explain in brief types of carbohydrate.
- 3) Discuss the structural determination of geraniol.
- 4) Explain shikimic acid pathway in detail.
- 5) Explain Explain solid phase peptide synthesis.
- 6) synthesis of nucleic acid in detail.
- 7) Discuss the synthesis of guanine.
- 8) Explain the chemistry of cellulose.
- 9) Give the synthesis of apigenin in detail.
- 10) Explain structure determination of farnesol, give its synthesis.

Class :- MSc Chemistry III Sem(II Year)
Theory / Practical

Science College, Congress Nagar, Nagpur.
2021 - 2022

Name of Teacher

R. S. Awachat
(Organic sp-II)

Sr. No	Roll	Students Full Name	Period	Date																	%		
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		18	19
1		ADITISHAIKANT AWALE	Ku	28/10/21	29/10/21	30/10/21	4/11/21	5/11/21	6/11/21	11/11/21	12/11/21	13/11/21	18/11/21	19/11/21	20/11/21	27/11/21	3/12/21	4/12/21					90%
2		APEKSHA MANESHWAR CHOUDHARY		P	P	D	.	.	P	P	P	P	P	P	P	P	P	P	P	P	P	P	90%
3		ASHWINI NANAKRAM BITLE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	90%
4		ASMIYA AAFREEN SHAHID PARVEZ ----	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	90%
5		BABITA RAMIDAS KAKDE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	95%
6		BHAGYASHRI CHANDRASHEKHAR	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	85%
7		BHAVESH KISAN NEWARE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	95%
8		CHANDNI KISHOR CHOUDHARY	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	95%
9		DIKSHA SURYAKANT CHANDERKAR	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	95%
10		DIPALI SHANKAR JIBHAKATE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	100%
11		DURGESH RAMESH ADMACHI	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	85%
12		GOURI ANILRAO BHOSLE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	100%
13		KIRTI CHAITRAM BODE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	100%
14		MOHIT KISHOR KHEDIKAR	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	85%
15		NIKHIL RAMCHANDRA TONGE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	95%
16		PARISHRAM JAGDISH GAUBHIYE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	95%
17		PRAGATI BHOLESWAR TAPASE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	90%
18		PRAJAKTA CHANDRASHEKHAR FEDDEWAR		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	90%
19		PRIYANKA DHANRAJ DHAMGAYE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	85%
20		RUCHITA DNYANESHWAR GECHODE	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	85%
21		RUTUJASHYAM POTKAR	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	100%
22		SAVITRI NARVADAPRASAD SONDIHYA	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	85%
23		SONALI SUNIL BORKAR	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	90%
24		SUKANYA BALIKARANPRASAD MISHRA	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	95%
25		SUSHMA VILAS KSHIRSAGAR	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	90%
26		TEJAS SHYAMSUNNDAR HINGNEKAR	Ku	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	90%

%
Attendance

SSES Amravati's Science College, Congress Nagar Nagpur
Department of Chemistry

M.Sc Sem III- 2021-22 Total Marks: -20

Paper III (Polymer Chemistry)

Unit Test No- 1 & 2 Mark list

Teacher Name: Dr. S. J. Kene

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	ADITISHASHIKANT AWALE	10	05	05	20
2		Ku	APEKSHA NANESHWAR CHOUDHARY	10	05	05	20
3		Ku	ASHWINI NANAKRAM BITLE	10	05	05	20
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5		Ku	BABITA RAMDAS KAKDE	10	05	05	20
6		Ku	BHAGYASHRI CHANDRASHEKHAR	10	05	04	19
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9		Ku	DIKSHA SURYAKANT CHANDEKAR	10	05	05	20
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11			DURGESH RAMESH ADMACHI	10	05	04	19
12		Ku	GOURI ANILRAO BHOSLE	10	05	05	20
13		Ku	KIRTI CHAITRAM BODE	10	05	05	20
14			MOHIT KISHOR KHEDIKAR	08	04	04	16
15			NIKHIL RAMCHANDRA TONGE	10	05	05	20
16			PARISHRAM JAGDISH GAJBHIYE	10	03	04	17
17		Ku	PRAGATI BHOLESHWAR TAPASE	10	05	05	20
18		Ku	PRAJAKTA CHANDRASHEKHAR FEDDEWAR	10	05	05	20
19		Ku	PRIYANKA DHANRAJ DHAMGAYE	10	05	05	20
20		Ku	RUCHITA DNYANESHWAR GECHODE	10	05	05	20
21		Ku	RUTUJASHYAM POTKAR	10	05	05	20
22		Ku	SAVITRI NARVADAPRASAD SONDHIA	10	05	05	20
23		Ku	SONALISUNIL BORKAR	10	05	04	19
24		Ku	SUKANYA BALIKARANPRASAD MISHRA	10	05	04	19
25		Ku	SUSHMA VILAS KSHIRSAGAR	10	05	05	20
26			TEJAS SHYAMSUNDAR HINGNEKAR	10	05	05	20

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 Congress Nagar, Nagpur.



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Internal Report

Exam Name: THIRD SEMESTER M.Sc. (CHEMISTRY) (CBCS) PG

Subject Name: POLYMER CHEMISTRY-1

College Name: (100) SHRI SHIVAJI SCIENCE COLLEGE

Session: Winter-2021

Sr	Seat No	Enrollment	Student Name	Marks / Max-20
1	578582	20181025114476	ADITI SHASHIKANT AWALE	20
2	578583	20181011312331	APEKSHA NANESHWAR CHOUDHARY	20
3	578584	20181042402456	ASHWINI NANAKRAM BITLE	20
4	578585	20181033411845	ASMIYA AAFREEN SHAHID PARVEZ	20
5	578586	20181010703591	BABITA RAMDAS KAKDE	20
6	578587	20181000413105	BHAGYASHRI CHANDRASHEKHAR GAIKWAD	19
7	578588	20173025106012	CHANDANI KISHOR CHOUDHRY	20
8	578589	20181015405019	DIKSHA SURYAKANT CHANDEKAR	20
9	578590	20181040110750	DIPALI SHANKAR JIBHAKATE	20
10	578591	20181011312369	GOURI ANILRAO BHOSLE	20
11	578592	20181033285596	KIRTI CHAITRAM BODE	20
12	578593	20181011312699	PARISHRAM JAGDISH GAJBHIYE	17
13	578594	--	PRAGATI BHOLESWAR TAPASE	20
14	578595	20181011312473	PRAJAKTA CHANDRASHEKHAR FEDDEWAR	20
15	578596	20181000413166	PRIYANKA DHANRAJ DHAMGAYE	20
16	578597	20181011312512	RUCHITA DNYANESHWAR GECHODE	20
17	578598	20181011312520	RUTUJA SHYAM POTKAR	20
18	578599	20181010703702	SAVITRI NARVADAPRASAD SONDIYA	20
19	578600	20181000106956	SONALI SUNIL BORKAR	19
20	578601	20181015803336	SUKANYA BALIKARANPRASAD MISHRA	19
21	578602	20181015803341	SUSHMA VILAS KSHIRSAGAR	20
22	578603	20181045912921	BHAVESH KISAN NEWARE	20
23	578604	2015016600741486	DURGESH RAMESH ADMACHI	19
24	578605	20181011312688	MOHIT KISHOR KHEDIKAR	16
25	578606	20181030401484	NIKHIL RAMCHANDRA TONGE	20
26	578607	20181015405333	TEJAS SHYAMSUNDAR HINGNEKAR	20

Signature Of Examiner

nt Date & Time: 01-02-2022 01:47 PM

SSES Amt's Science College, Congress Nagar, Nagpur

Department of Chemistry

M.Sc. Chemistry Sem III

Theory (Polymer Chemistry)

Session :2021-22

Time: 1Hrs

Unit Test

Total Marks -20

All questions are compulsory and Each question carry 5 mark.

- (A) Write the difference between cationic and anionic polymerization.
- (B) Explain ring opening polymerization for the formation of nylon.
- (C) Discuss polyaddition polymerization in detail.
- (D) Classify the following compounds as an initiator or inhibitor:
 - (i) Cumyl peroxide
 - (ii) Diphenyl picryl hydrazide
 - (iii) Peracetic acid
 - (iv) Hydroquinone
 - (v) Diisopropyl percarbonate
 - (vi) Atmospheric oxygen
 - (vii) Tert. Butyl peracetate
 - (viii) Azo-bis methyl isobutyrate.
 - (ix) Benothiazine
 - (x) Dinitrobenzene.

SSES Amt's Science College, Congress Nagar, Nagpur

Department of Chemistry

M.Sc. Chemistry Sem III

Theory (Polymer Chemistry)

Session :2021-22

Date:

Assignment

Total Marks -20

All questions are compulsory and Each question carry 5 mark.

- (A) In a given Polymer Sample 30 % molecules have molecular mass 20,000, 45% have molecular mass 30,000, and the rest 25 % molecules have molecular weight 60,000. Calculate M_n and M_w .
- (B) Discuss in brief End Group analysis of Polymer.
- (C) How will you determine the molecular weights of Polymer by Sedimentation equilibrium method?
- (D) The intrinsic viscosity of Biopolymer is $3/7 \text{ cm}^3 \text{ g}^{-1}$. Calculate the approximate concentration of Biopolymer in water which would have relative viscosity of 1.9.

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Department of Chemistry

M.Sc Sem III- 2021-22 Total Marks: -20

Paper IV (Spectroscopy-I)


Unit Test No- 1 & 2 Mark list

Teacher Name: Dr. R. Surose

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	ADITISHASHIKANT AWALE	10	05	05	20
2		Ku	APEKSHA NANESHWAR CHOUDHARY	10	05	05	20
3		Ku	ASHWINI NANAKRAM BITLE	10	05	05	20
4		Ku	ASMIYA AAFREEN SHAHID PARVEZ ----	10	05	05	20
5		Ku	BABITA RAMDAS KAKDE	10	05	05	20
6		Ku	BHAGYASHRI CHANDRASHEKHAR	10	05	04	19
7			BHAVESH KISAN NEWARE	10	05	05	20
8		Ku	CHANDNI KISHOR CHOUDHARY	10	05	05	20
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10		Ku	DIPALI SHANKAR JIBHAKATE	10	05	05	20
11			DURGESH RAMESH ADMACHI	08	04	04	18
12		Ku	GOURI ANILRAO BHOSLE	10	05	05	20
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Internal Report

Exam Name: THIRD SEMESTER M.Sc. (CHEMISTRY) (CBCS) PG

Subject Name: SPECTROSCOPY-I

College Name: (100) SHRI SHIVAJI SCIENCE COLLEGE

Session: Winter-2021

Sr	Seat No	Enrollment	Student Name	Marks / Max-20
1	578582	20181025114476	ADITI SHASHIKANT AWALE	20
2	578583	20181011312331	APEKSHA NANESHWAR CHOUDHARY	20
3	578584	20181042402456	ASHWINI NANAKRAM BITLE	20
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16	578597	20181011312512	RUCHITA DNYANESHWAR GECHODE	20
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25	578606	20181030401484	NIKHIL RAMCHANDRA TONGE	20
26	578607	20181015405333	TEJAS SHYAMSUNDAR HINGNEKAR	20

Signature Of Examiner

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SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem III

Theory (Spectroscopy-I)

Session :2021-22

Unit Test

Total Mark's -20

Attempt Any 4

Q.1. Derive character table of NH_3 molecule using Great Orthogonality Theorem. 5

Q.2. Determine irreducible components of following RR in C_{3v} point group: 5

C_{3V}	E	$2C_3$	$3\sigma_V$
A1	1	1	1
A2	1	1	-1
E	2	-1	0

C_{3V}	E	$2C_3$	$3\sigma_V$
τ	5	2	-1

Q.3. What is 'Doppler Shift' ? Explain its application in Mossbauer spectroscopy. 5

Q.4. In mass spectrum of 1-hexano, a very weak molecular ion peak at $m/e = 102$ with other prominent peaks at 100, 99, 84, 56 (base peak) and 31. What are most probable species responsible for these peaks ? 5

Q.5. Give mathematical expression for Great Orthogonality Theorem and give its various corollaries. 5

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem III

Theory (Spectroscopy-I)

Session :2021-22

Assignment

- Q.1. Define 'Molecular ion peak' and explain various peaks obtained in mass spectrum of neopentane.
- Q.2. Explain the effect of magnetic field on Mossbauer spectrum with suitable example.
- Q.3. Explain instrumentation in Mossbauer spectroscopy.
- Q.4. Explain application of Mass spectrometry in study of McLafferty rearrangement.
- Q.5. Derive the expression for rotational frequency of rigid rotor and explain the nature of spectrum obtained for rigid rotor.
- Q.6. Explain applications of ESR spectroscopy.
- Q.7. What is 'Raman Shift' ? Explain the appearance of Stokes and Antistokes lines on the basis of classical theory.
- Q.8. Write short notes on :
- (i) PQR bands (ii) Complementary nature of IR and Raman spectroscopy.
- Q.9. Explain N-rule with example.
- Q.10. Determine the number of operations corresponding to improper axis of rotation in PCl_5

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Department of Chemistry

M.Sc Sem IV- 2021-22 Total Marks: -20

Paper I (Organic Chemistry Sp.-I)


Unit Test No- 1 & 2 Mark list

Teacher Name: Pramod Bhojar/Prerna kotecha

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	ADITISHASHIKANT AWALE	10	05	05	20
2		Ku	APEKSHA NANESHWAR CHOUDHARY	10	05	05	20
3		Ku	ASHWINI NANAKRAM BITLE	10	05	05	20
4		Ku	ASMIYA AAFREEN SHAHID PARVEZ ----	10	05	05	20
5		Ku	BABITA RAMDAS KAKDE	10	05	05	20
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8		Ku	CHANDNI KISHOR CHOUDHARY	02	03	02	07
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24		Ku	SUKANYA BALIKARANPRASAD MISHRA	10	05	05	20
25		Ku	SUSHMA VILAS KSHIRSAGAR	10	05	05	20
26			TEJAS SHYAMSUNDAR HINGNEKAR	10	05	05	20

Pramod




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 Congress Nagar, N.



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Internal Report

Exam Name: FOURTH SEMESTER M.Sc. (CHEMISTRY) (CBCS) PG

Subject Name: ORGANIC CHEMISTRY-I

College Name: (100) SHRI SHIVAJI SCIENCE COLLEGE

Session: Summer-2022

Sr	Seat No	Enrollment	Student Name	Marks / Max-20
1	572281	20181025114476	ADITI SHASHIKANT AWALE	20
2	572282	20181011312331	APEKSHA NANESHWAR CHOUDHARY	20
3	572283	20181042402456	ASHWINI NANAKRAM BITLE	20
4	572284	20181033411845	ASMIYA AAFREEN SHAHID PARVEZ	20
5	572285	20181010703591	BABITA RAMDAS KAKDE	20
6	572286	20181000413105	BHAGYASHRI CHANDRASHEKHAR GAIKWAD	20
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9	572289	20181015405019	DIKSHA SURYAKANT CHANDEKAR	20
10	572290	20181040110750	DIPALI SHANKAR JIBHAKATE	20
11	572291	2015016600741486	DURGESH RAMESH ADMACHI	17
12	572292	20181011312369	GOURI ANILRAO BHOSLE	7
13	572293	20181033285596	KIRTI CHAITRAM BODE	20
14	572294	20181011312688	MOHIT KISHOR KHEDIKAR	7
15	572295	20181030401484	NIKHIL RAMCHANDRA TONGE	20
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17	572297	--	PRAGATI BHOLESWAR TAPASE	20
18	572298	20181011312473	PRAJAKTA CHANDRASHEKHAR FEDDEWAR	20
19	572299	20181000413166	PRIYANKA DHANRAJ DHAMGAYE	20
20	572300	20181011312512	RUCHITA DNYANESHWAR GECHODE	20
21	572301	20181011312520	RUTUJA SHYAM POTKAR	20
22	572302	20181010703702	SAVITRI NARVADAPRASAD SONDIYA	17
23	572303	20181000106956	SONALI SUNIL BORKAR	7
24	572304	20181015803336	SUKANYA BALIKARANPRASAD MISHRA	20
25	572305	20181015803341	SUSHMA VILAS KSHIRSAGAR	20
26	572306	20181015405333	TEJAS SHYAMSUNDAR HINGNEKAR	20

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Signature Of Examiner

int Date & Time: 27-05-2022 05:24 PM

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem IV

Theory (special I – organic)

Session :2021-22

Unit Test

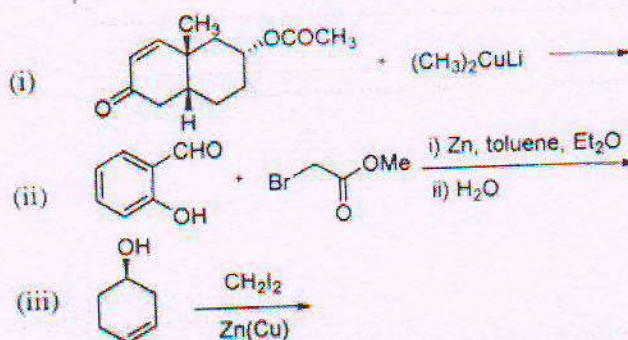
Total Mark's -20

Time :-1 hr

5 marks each

1. explain organozinc reagents with example and give brief account in simmon smith reaction.

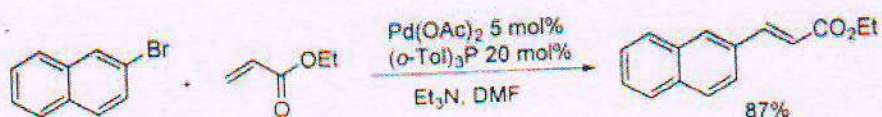
2. Predict the product of the following reactions



3. write a suitable mechanism for the following reactions.



4. how will you bring about the following transformations



5. explain alkylation of enolates, and enamines in organic synthesis.

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem IV

Theory (special I – organic)

Session :2021-22

Assignment

Solve the following.

- 1) Explain Knoevenagel reaction with example.
- 2) Discuss Cram's chelate model.
- 3) Explain Felkin-Anh rule and Houk model.
- 4) Explain asymmetric synthesis use of chiral auxiliaries, asymmetric hydrogenation.
- 5) Explain asymmetric epoxidation and asymmetric dihydroxylation.
- 6) Explain disconnection approach- an introduction to synthons.
- 7) Discuss the protection and deprotection of functional group.
- 8) Discuss the Baylis-Hillman reaction.
- 9) Explain monosaccharides and disaccharides.
- 10) Discuss Michael addition and Robinson annelation.

SSES Amravati's Science College, Congress Nagar, Nagpur
Department of Chemistry

M.Sc Sem IV- 2021-22 Total Marks: -20

Paper II (Organic Chemistry Sp.-II)

Unit Test No- 1 & 2 Mark list

Teacher Name: Asmiya Sadaf/ Megha Tabhane

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	ADITISHASHIKANT AWALE	10	05	05	20
2		Ku	APEKSHA NANESHWAR CHOUDHARY	10	05	05	20
3		Ku	ASHWINI NANAKRAM BITLE	10	05	05	20
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5		Ku	BABITA RAMDAS KAKDE	10	05	05	20
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24		Ku	SUKANYA BALIKARANPRASAD MISHRA	10	05	05	20
25		Ku	SUSHMA VILAS KSHIRSAGAR	10	05	05	20
26			TEJAS SHYAMSUNDAR HINGNEKAR	10	05	05	20

Asmiya Sadaf



Megha Tabhane
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 Congress Nagar, Nagpur



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Internal Report

Exam Name: FOURTH SEMESTER M.Sc. (CHEMISTRY) (CBCS) PG

Subject Name: ORGANIC CHEMISTRY-II

College Name: (100) SHRI SHIVAJI SCIENCE COLLEGE

Session: Summer-2022

Sr	Seat No	Enrollment	Student Name	Marks / Max-20
1	572281	20181025114476	ADITI SHASHIKANT AWALE	20
2	572282	20181011312331	APEKSHA NANESHWAR CHOUDHARY	20
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26	572306	20181015405333	TEJAS SHYAMSUNDAR HINGNEKAR	20

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Signature Of Examiner

Print Date & Time: 27-05-2022 05:25 PM

SSES Amt's Science College, Congress Nagar, Nagpur

Department Of Chemistry

M.Sc. Chemistry Sem IV

Theory (special II – organic)

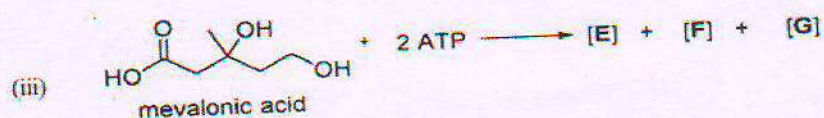
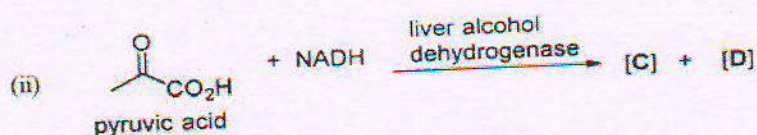
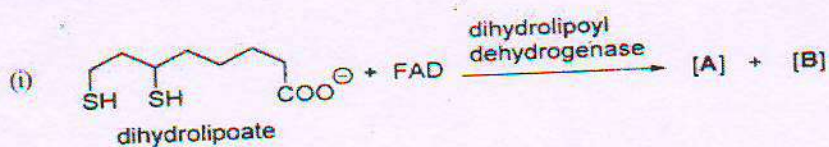
Session :2021-22

Unit Test

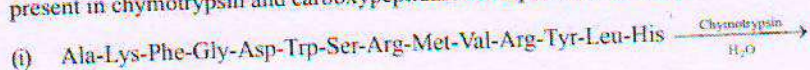
Total Mark's -20

Time :-1 hr 5 marks each

1) Predict the product of the following reactions;

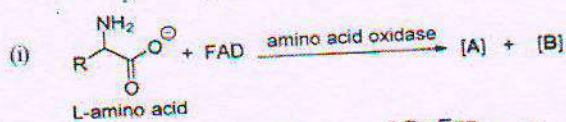


(c) Predict the product(s) of the following reactions. Write the structures of amino acid residues present in chymotrypsin and carboxypeptidase A responsible for enzyme catalysis :



5

3) predict the product of the following reactions



4) explain classification of enzymes with examples. What is enzymes?

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Department Of Chemistry

M.Sc. Chemistry Sem IV

Theory (special II – organic)

Session :2021-22

Assignment

Solve the following.

- 1) Explain classification of enzymes.
- 2) Discuss remarkable properties of ENZYMES.
- 3) Explain catalytic power and specificity of enzymes.
- 4) Discuss fishers lock and key model of enzymes.
- 5) Explain koshlands induced fit hypothesis.
- 6) Explain in brief mechanism of enzyme action.
- 7) Discuss in detail primary and secondary structure of nucleic acid .
- 8) Explain DNA replication and heredity.
- 9) Explain purines and pyrimidines bases of nucleic acids.
- 10) Explain fatty acids and triglycerol in detail.

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M.Sc Sem IV- 2021-22 Total Marks: -20

Paper III (Polymer Chemistry)


Unit Test No- 1 & 2 Mark list

Teacher Name: Dr. S.J. Kene

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	ADITISHASHIKANT AWALE	10	05	05	20
2		Ku	APEKSHA NANESHWAR CHOUDHARY	10	05	05	20
3		Ku	ASHWINI NANAKRAM BITLE	10	05	05	20
4		Ku	ASMIYA AAFREEN SHAHID PARVEZ ----	10	05	05	20
5		Ku	BABITA RAMDAS KAKDE	10	05	05	20
6		Ku	BHAGYASHRI CHANDRASHEKHAR	10	05	05	20
7			BHAVESH KISAN NEWARE	09	04	04	17
8		Ku	CHANDNI KISHOR CHOUDHARY	03	02	02	07
9		Ku	DIKSHA SURYAKANT CHANDEKAR	10	05	05	20
10		Ku	DIPALI SHANKAR JIBHAKATE	10	05	05	20
11			DURGESH RAMESH ADMACHI	09	04	04	17
12		Ku	GOURI ANILRAO BHOSLE	03	02	02	07
13		Ku	KIRTI CHAITRAM BODE	10	05	05	20
14			MOHIT KISHOR KHEDIKAR	03	02	02	07
15			NIKHIL RAMCHANDRA TONGE	10	05	05	20
16			PARISHRAM JAGDISH GAJBHIYE	03	02	02	07
17		Ku	PRAGATI BHOLESWAR TAPASE	10	05	05	20
18		Ku	PRAJAKTA CHANDRASHEKHAR FEDDEWAR	10	05	05	20
19		Ku	PRIYANKA DHANRAJ DHAMGAYE	10	05	05	20
20		Ku	RUCHITA DNYANESHWAR GECHODE	10	05	05	20
21		Ku	RUTUJASHYAM POTKAR	10	05	05	20
22		Ku	SAVITRI NARVADAPRASAD SONDIYA	09	04	04	17
23		Ku	SONALISUNIL BORKAR	03	02	02	07
24		Ku	SUKANYA BALIKARANPRASAD MISHRA	10	05	05	20
25		Ku	SUSHMA VILAS KSHIRSAGAR	10	05	05	20
26			TEJAS SHYAMSUNDAR HINGNEKAR	10	05	05	20

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Internal Report

Exam Name: FOURTH SEMESTER M.Sc. (CHEMISTRY) (CBCS) PG

Subject Name: POLYMER CHEMISTRY

College Name: (100) SHRI SHIVAJI SCIENCE COLLEGE

Session: Summer-2022

Sr	Seat No	Enrollment	Student Name	Marks / Max-20
1	572281	20181025114476	ADITI SHASHIKANT AWALE	20
2	572282	20181011312331	APEKSHA NANESHWAR CHOUDHARY	20
3	572283	20181042402456	ASHWINI NANAKRAM BITLE	20
4	572284	20181033411845	ASMIYA AAFREEN SHAHID PARVEZ	20
5	572285	20181010703591	BABITA RAMDAS KAKDE	20
6	572286	20181000413105	BHAGYASHRI CHANDRASHEKHAR GAIKWAD	20
7	572287	20181045912921	BHAVESH KISAN NEWARE	17
8	572288	20173025106012	CHANDANI KISHOR CHOUDHRY	7
9	572289	20181015405019	DIKSHA SURYAKANT CHANDEKAR	20
10	572290	20181040110750	DIPALI SHANKAR JIBHAKATE	20
11	572291	2015016600741486	DURGESH RAMESH ADMACHI	17
12	572292	20181011312369	GOURI ANILRAO BHOSLE	7
13	572293	20181033285596	KIRTI CHAITRAM BODE	20
14	572294	20181011312688	MOHIT KISHOR KHEDIKAR	7
15	572295	20181030401484	NIKHIL RAMCHANDRA TONGE	20
16	572296	20181011312698	PARISHRAM JAGDISH GAJBHIYE	7
17	572297	-	PRAGATI BHOLESHWAR TAPASE	20
18	572298	20181011312473	PRAJAKTA CHANDRASHEKHAR FEDDEWAR	20
19	572299	20181000413166	PRIYANKA DHANRAJ DHAMGAYE	20
20	572300	20181011312512	RUCHITA DNYANESHWAR GECHODE	20
21	572301	20181011312520	RUTUJA SHYAM POTKAR	20
22	572302	20181010703702	SAVITRI NARVADAPRASAD SONDDHIYA	17
23	572303	20181000106956	SONALI SUNIL BORKAR	7
24	572304	20181015803336	SUKANYA BALIKARANPRASAD MISHRA	20
25	572305	20181015803341	SUSHMA VILAS KSHIRSAGAR	20
26	572306	20181015405333	TEJAS SHYAMSUNDAR HINGNEKAR	20


Signature Of Examiner

Print Date & Time: 27-05-2022 05:26 PM

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Department of Chemistry

M.Sc. Chemistry Sem IV

Theory (Polymer Chemistry)

Session :2021-22

Time: 1Hrs

Unit Test

Total Marks -20

All questions are compulsory and Each question carry 5 mark.

- (a) Explain in brief about cationic polymerization with suitable examples.
- (b) Explain the ring opening polymerization technique by taking the example of oxirane ring compound.
- (c) Define:
- (I) Initiator
 - (II) Inhibitor
 - (III) Photo initiated polymerization.
- (d) Write note on step polymerization.

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Department of Chemistry

M.Sc. Chemistry Sem IV

Theory (Polymer Chemistry)

Session :2021-22

Date:

Assignment

Total Marks -20

All questions are compulsory and Each question carry 5 mark.

- (b) Give the applications of NMR with respect to polymer characterization.
- (c) Write the brief account for DTA analysis method.
- (d) Write in detail any one method for the synthesis of graft copolymer.
- (e) Explain the application of IR with respect to polymer characterization.
- (f) Write a brief account for DSC analysis method with respect to polymer characterization.

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Department of Chemistry

M.Sc Sem IV- 2021-22 Total Marks: -20

Paper IV (Spectroscopy-II)


Unit Test No- 1 & 2 Mark list

Teacher Name: Dr. R. Surose

Sr. No	Roll		Students Full Name	Unit Test (10)	Assignment (05)	Attendance (05)	Total (20)
1		Ku	ADITISHASHIKANT AWALE	10	05	05	20
2		Ku	APEKSHA NANESHWAR CHOUDHARY	10	05	05	20
3		Ku	ASHWINI NANAKRAM BITLE	10	05	05	20
4		Ku	ASMIYA AAFREEN SHAHID PARVEZ ----	10	05	05	20
5		Ku	BABITA RAMDAS KAKDE	10	05	05	20
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15			NIKHIL RAMCHANDRA TONGE	10	05	05	20
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17		Ku	PRAGATI BHOLESWAR TAPASE	10	05	05	20
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19		Ku	PRIYANKA DHANRAJ DHAMGAYE	10	05	05	20
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23		Ku	SONALI SUNIL BORKAR	02	03	02	07
24		Ku	SUKANYA BALIKARANPRASAD MISHRA	10	05	05	20
25		Ku	SUSHMA VILAS KSHIRSAGAR	10	05	05	20
26			TEJAS SHYAMSUNDAR HINGNEKAR	10	05	05	20

Surose




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Internal Report

Exam Name: FOURTH SEMESTER M.Sc. (CHEMISTRY) (CBCS) PG

Subject Name: SPECTROSCOPY-II

College Name: (100) SHRI SHIVAJI SCIENCE COLLEGE

Session: Summer-2022

Sr	Seat No	Enrollment	Student Name	Marks / Max-20
1	572281	20181025114476	ADITI SHASHIKANT AWALE	20
2	572282	20181011312331	APEKSHA NANESHWAR CHOUDHARY	20
3	572283	20181042402456	ASHWINI NANAKRAM BITLE	20
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25	572305	20181015803341	SUSHMA VILAS KSHIRSAGAR	20
26	572306	20181015405333	TEJAS SHYAMSUNDAR HINGNEKAR	20

Signature Of Examiner

Print Date & Time: 27-05-2022 05:27 PM

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Department Of Chemistry

M.Sc. Chemistry Sem IV

Theory (Spectroscopy-II)

Session :2021-22

Unit Test

Total Mark's -20

Attempt Any 4

- | | |
|---|---|
| Q.1. Explain Auger electron spectroscopy. | 5 |
| Q.2. State and explain Beer- Lambert Law. | 5 |
| Q.3 Derive the Braggs expression equation and discuss the experimental setup of Bragg's method for crystal structure determination. | 5 |
| Q.4 What is structure factor ? Determine the structure factor for a base centered cube where two atoms are of same kind per unit cell. | 5 |
| Q.5. How structure factor is calculated in case of NaCl crystal when (hkl) are mixed and when they are unmixed? Discuss the presence and absence of intensity peak. | 5 |

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M.Sc. Chemistry Sem IV

Theory (Spectroscopy-II)

Session :2021-22

Assignment

Q.1. Explain the basic principles of Auger electron spectroscopy.

Q.2 Describe the various types of absorption bands which arise as a result of the electronic transitions.

Q.3 Define the following terms :

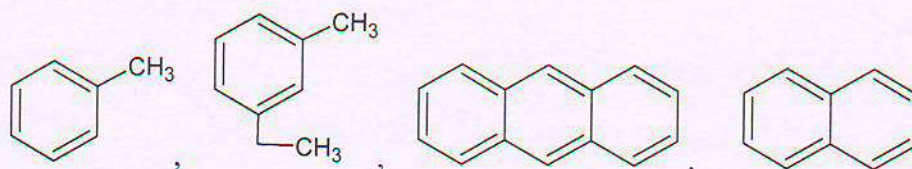
(i) Bathochromic shift

(ii) Hypsochromic shift

(iii) Chromophore

(iv) Hyperchromic shift

Q.4 How many ^{13}C NMR signals does each compound exhibit ?



Q.5. Write short note on Koopman theorem.

Q.6. Explain the effect of solvent polarity on the position of $\pi \rightarrow \pi^*$ and $n \rightarrow \pi^*$ ultraviolet bands.

Q.7 ^1H NMR spectrum of a mixture containing o-nitrotoluene and p-nitrotoluene showed two peaks for the methyl group in these compounds. The methyl peak of o-nitrotoluene appeared at δ 2.5 ppm with an integration (area under the peak) of 52 and the methyl peak of p-nitrotoluene appeared at δ 2.3 ppm with an integration of 28. Calculate the mole ratio of these two compounds in the mixture.

Q.8. At what glancing angle would the first order diffraction from (110) plane of KCl be observed using X-ray of wavelength of 154 pm? The dimension of unit cell is 315 pm.

Q.9 What is structure factor ? Determine the structure factor for a base centered cube where two atoms are of same kind per unit cell.

