In Pursuit of Excellence	**Course and Faculty Details**	SESSION-2019-2020 SEM- I

Faculty Details

Name of the Faculty: Dr. Nitin Kumar Agrawal

Designation: Assistant Professor

Department: Applied Sciences & Humanities

Course Details

Name of the Programme: B.Tech. Batch: 2019-2023

Branch: CS Section: B

Name of Subject: Chemistry Subject Code: KAS-102

Category of Course: Core Subject

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In Pursuit of Excellence	**Index**	SESSION-2019-2020 SEM- I

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Vision

To develop industry ready professionals with values and ethics for global needs.

Mission

M1: To impart education through outcome based pedagogic principles.

M2: To provide conducive environment for personality development, training and entrepreneurial skills.

M3: To induct high professional ethics and accountability towards society in students.

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In Pursuit of Excellence	Vision & Mission Of Department	SESSION- 2019-20
		SEM- I

Vision

Imparting basic knowledge of science and human values for the benefits of the society through education system, for laying a strong foundation at the beginning level of engineering to meet complex technological needs of the society.

Mission

To transform the department into one of the leading departments by providing the required high quality infrastructure, professional values and ethics with strong bedrock to excel in technical knowledge.

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MIT Varanasi

In Pursuit of Excellence	Vision & Mission Of Department	SESSION- 2019-20 SEM- I

Vision of Department

To develop globally recognized computer science and engineering graduates with ethical values for need of software industries.

Mission of Department

1. To impart knowledge through well-defined instructional objectives in the field of computer science and engineering.
2. To provide a learning ambience for skills, innovation, leadership and overall personality development.
3. To inculcate professional ethics, teamwork and responsiveness towards society.

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In Pursuit of Excellence	**Program Educational Objectives**	SESSION- 2019-20 SEM- I

1. **PEO 1 :** The graduates will have entrepreneurial and employable skills in software industries, by adapting themselves in the corporate world by utilizing the defined instructional objectives learnt in the program.
2. **PEO 2 :** The graduates will engage in skill enhancement, that would help to work in their own area of interest, individually or in a team.
3. **PEO 3 :** The graduates will demonstrate ownership and responsiveness towards the profession and the society.

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Program Outcomes

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems.

2. Problem analysis: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems: Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities, with an understanding of the limitations.

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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10. Communication: Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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In Pursuit of Excellence	**Program Specific Outcomes**	SESSION- 2019-20 SEM- I

After completing their graduation, students of Computer Science and Engineering will be able to -

PSO 1 : Comprehend the core subjects of CSE and apply them to resolve domain specific tribulations.

PSO 2: Extrapolate the fundamental concepts in engineering and to apply latest technology with programming language skills to develop, test, implement and maintain software products.

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DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY, UTTAR PRADESH
Jankipuram Ext. Sector- 11 , Sitapur Road, Lucknow, 226031,

ACADEMIC CALANDER

FOR B.TECH/B.PHARM/B.ARCH/B.DES/B.VOC/BHMCT/BFAD/BFA/MBA/MBA-INT/MCA/MCA-INT & M.Tech./M.Pharm./M.Arch./M.DES.

ACADEMIC SESSION 2019-20

S.No.	Particulars	Dates	
		Odd Semester	Even Semester
01	Commencement of Classes session 2019-20.	For I, III, V, VII & IX Semester 27 July, 2019	Jan.16, 2020 For II, IV, VI, VIII, & X Semester
02	Last date of Admission.	Aug. 15, 2019	—
03	Last date of submitting admission list of students to University (for newly admitted student).	Aug. 31, 2019	—
04	Last date of submitting Enrollment form /Exam Form for regular & carry over exams.	Sep. 30, 2019	—
05	Last date of Submitting Examination fee for both semesters including carry over examination fee.	Oct. 15, 2019	—
06	Last date of submitting sessional marks (Theory & Practical) to University.	Dec. 05, 2019	May 06, 2020
07	End Semester Theory Examination.	Dec. 09, 2019 to Dec. 31, 2019	May, 06, 2020 to May 30, 2020
08	End Semester Practical Examination (PE).	Jan. 01, 2020 to Jan. 07, 2020	May 31, 2020 to June 08,, 2020
09	Last Date of Submission of PE Marks.	Jan. 10, 2020	June 10, 2020
10	Evaluation of Answer sheets.	Dec. 12,2019, to Jan.10, 2020	May 12, 2020 to June 15, 2020
11	Summer Training/ internship.		June 08, 2020 to July 20, 2020
12	Winter Vacations/ Summer Vacation.	Jan. 08, 2020, to Jan.15, 2020	June 08, 2020 to July 20, 2020
13	Commencement of Classes session 2020-21.	For I, III, V, VII & IX Semester July 22,2020 (Exact dates shall be intimated later)	

Note:

1- The Institute shall ensure 540 hours of teaching per semester. If required the director/principal shall arrange extra classes, or weekends/ holidays.

2- The Institute should ensure that at least two class test are conducted after completing 1/3rd & 2/3rd syllabus respectively. Al students will be required to appear in both first and second class tests. If for any reason beyond the control of students such as illness, tragic incident in family, the students fail to appear in any test, it will be responsibility of Principle/ Director of Institute to arrange class test for such students. However, if the student fails to appear in first class test, his left over class test will be conducted before second class test and in case of second class test at least one month before the start of end semester theory examination. The duration of class test will minimum one hour for each class test, 70% attendance at 1st test and 75% attendance at second class test are required. In case attendance is short, parents are be informed accordingly on monthly basis.

3- The Directors/Principal of Institute shall submit attendance of student's regularly through attendance monitoring system of the university and shall ensure that no student is allowed to appear in the examinations who has not attained the minimum required attendance as per norms prescribed in relevant ordinances. It will be obligatory on the part of Director/Principal of Institute to detain such students and their admit cards will not be issued to them. A list of students detained from appearing in University Examination(s) be submitted to University and their Examination centre before commencement of theory examination.

4- The teacher who is assigned evaluation duty during vacation shall be entitled for earned leave as per rules and duty leave for other examination works.

5- The Induction programmes for 1st year B.Tech student shall be between July 29,2019 to Aug. 17, 2019.

6- Summer training internship for 1st year B.Tech student shall also be held between June 08,2020 to July 20, 2020.

(Nand Lal Singh)
Registrar.

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HOD (CSE)
M.I.T.M. Allahabad

Moradabad Institute of Technology

Ramganga Vihar Phase – II, Moradabad

ODD Semester

ACADEMIC CALENDAR

Session: 2019 – 2020

S. No.	Particulars	Date	Responsibility
1.	**Time Table** (a) Display on Notice Boards (b) Distribution to concerned Teachers	29 July 2019 29 July 2019	O.C. Time – Table
2.	Distribution of class lists to teachers	29 July 2019	O.C. Class / DR
3.	**Registrations** (a) 3rd / 5th /7th Semester (b)List of unregistered students to various department (c) Notifying unregistered students for getting registered at the earliest (through class O.Cs, / Faculty)	1,2,3 Aug.2019 20 Aug 2019 22 Aug 2019	Concerned Teachers OS Academic Concerned HODs
4.	**Commencement of Classes** 3rd / 5th / 7th Semester	2,3,4 Aug.2019	Concerned Teachers
5.	Blow up submission to HODs	30 July 2019	Concerned Teachers
6.	Announcement of Test series dates	16Aug 2019	Dean Academics
7.	(a) Collection of Examination forms from University and announcement of date for availability of forms (b) Last date for submission of forms to office (c) Submission of forms to University	30 Aug 2019**	OS Academic to take timely action as per University directions.
8.	Procurement of stationary & materials for Test Series for full semester (a) Requirement (b) Actual Procurement	31 Aug 2019 5 Sept 2019	Convener Test Series Committee O.S. Academics
9.	(a)Short attendance compilation and information to parents and undertaking format handed over to students (b)Collection of Short attendance undertaking	09 Sept 2019 11 Sept 2019	O.C. Class
10.	**1st Test Series** **Thu, Fri, Sat**	**12, 13,14, Sept 2019**	
	(a) Announcement of Test Series schedule, Invigilation Programme, Seating arrangement etc.	11 Sept 2019	Class Test Committee
	(b) After completion of Test Series- Evaluation of test copies & showing of copies to students	21 Sept 2019	Concerned Teachers
	(c) Submission of test copies in Nodal Centre	25 Sept 2019	Concerned Teachers
	(d) Report of poor performance of students to class OCs	26 Sept 2019	Concerned Teachers
	(e)Short attendance compilation, display on notice board and information to parents	19 Oct 2019	O.C. Class
11.	2nd Test Series Wed, Thus, Fri	23,24, 25 Oct 2019	
	(a) Announcement of Test Series schedule, Invigilation Programme, seating arrangement etc	22 Oct 2019	Class Test Committee

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	(b) After completion of Test Series - Evaluation of test copies & showing of copies to students (c) Submission of test copies in Nodal Centre (d) Report of poor performance of students to class OCs	02 Nov 2019 04 Nov 2019 05 Nov 2019	Concerned Teachers Concerned Teachers Concerned Teachers
12.	Filling of student feedback forms for current semester	27 Nov 2019	Concerned HODs
13.	Requirement of additional Faculty (to be conveyed to Director) (for even semester)	30 Nov 2019	Concerned HODs
14.	(a) Floating the electives for even semester (b) Last date for students choice	26 Nov 2019 30 Nov 2019	Concerned HODs
15.	Announcement of dues list and its last date for clearing dues (Current semester)	**22 Oct 2019**	Accounts/ OS Academic
16.	Date up to which final attendance is to be counted	29 Nov 2019	Concerned teachers
17.	Submission of consolidated list of shortage of attendance to Director and information to Parents	30 Nov 2019	Class O.Cs
18.	**3rd Test Series Thu, Fri, Sat**	**28,29,30 Nov 2019**	
	(a) Announcement of Test Series schedule, Invigilation Programme, Seating arrangement etc.	27 Nov 2019	Class Test Committee
	(b) After completion of Test Series- Evaluation of test copies & showing of copies to students (c) Submission of test copies in Nodal Centre (d) Report of poor performance of students to class OCs	03 Dec2019 04 Dec 2019 04 Dec 2019	Concerned Teacher Concerned Teachers Concerned Teachers
19.	**Submission of sessional marks:** (a) Meeting of Dean Academics, , all HODs and Director regarding attendance and performance of students.	04 Dec 2019	Dean Academics
	(b) Checking of Teachers' Records by HODs	05 Dec 2019	Concerned HODs
	(c) Finalization of sessional marks	05 Dec 2019	Concerned Teachers
	(d) Submission of Award list after final checking and uploading to OS Academics for further necessary action	As per date announced by AKTU	HODs Concerned Teachers
20.	**Theory Examinations:** (a) Collection of Admit Cards / Roll Nos. from University (b) Preparation of Roll lists (c) Collection of stationery such as copies, practical copies drawing sheets, graph paper etc. from University. (c) Procurement of stationery and other materials locally as necessary.	As per AKTU schedule	OS Academics to take appropriate actions as per University directions.
21.	**Practical Examinations:**	As per AKTU schedule	Concerned HODs
	(a) Appointment of Internal Examiners	3 days before the practical exam schedule	Concerned HODs
	(b) Obtaining list of panel of External Examiners from AKTU & preparation of schedule of practical examination.	As per AKTU schedule	OS Academics
	(d) Dispatch of letters/contacting the external examiners	Within 2 days of list obtained from AKTU	HODs and concerned teachers

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22.	Preparation for Even Semester (a) Load Distribution by Department (b) Submission to O.C. Time-Table (c) Display of Time Table on Notice Board	10 Dec 2019 12 Dec 2019 18 Jan 2020	Concerned Coordinat O.C. Time Table
23.	Registration for Even semester [2019 – 20]	To be announced**	OS Academic
24.	Announcement of Academic calendar for Even semester [2019 – 20]	5 Days before the start of Even sem.	Dean Academics

**May be revised as per AKTU Schedule.

27.7.2019

Dean Academics

Director

Copy to:

1. Chairman	2. Secretary	3. P.A. to Director for Director's folder
4. All HODs	5. DOSW	6. Controller Examination
7. Associate Dean Academics	8. Registrar	9. All Faculty Members through HODs
10. O.S. Academics	11. A.S. Examinations	12. Accounts Section
13. T & P Cell	14. Librarian	15. Convener Test Series/ O.C. Time Table

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B. Tech 1st Year (All branches except Bio Technology and Agriculture Engg.) Structure in accordance with AICTE Model Curriculum Effective w.e.f. Academic Session 2018-19, 2019-20

SEMESTER - I

Sl. No.	Code	SUBJECT	PERIODS			EVALUATION SCHEME				END SEMESTER		TOTAL	CREDIT
			L	T	P	CT	TA	Total	PS	TE	PE		
3 WEEKS COMPULSORY INDUCTION PROGRAM													
1	KAS101/ KAS102	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	KAS103	Mathematics-I	3	1	0	30	20	50	-	100	-	150	4
3	KEE 101/ KCS101	Basic Electrical Engineering/Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	KCE101/ KWS101	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
	MOOCs (For B.Tech. Hons. Degree)*												0
		TOTAL										600	17.5

SEMESTER II

Sl. No.	Code	SUBJECT	PERIODS			EVALUATION SCHEME				END SEMESTER		TOTAL	CREDIT
			L	T	P	CT	TA	Total	PS	TE	PE		
1	KAS201/ KAS202	Physics/Chemistry	3	1	3	30	20	50	25	100	25	200	5.5
2	KAS203	Mathematics II	3	1	0	30	20	50	-	100	-	150	4
3	KEE201/ KCS201	Basic Electrical Engineering/Programming for Problem Solving	3	1	2	30	20	50	25	100	25	200	5
4	KCE201/ KWS201	Engineering Graphics & Design/Workshop Practices	1	0	4	-	-	-	25	-	25	50	3
5	KAS204	Professional English	2	0	2	30	20	50	-	100	-	150	3
	MOOCs (For B.Tech. Hons. Degree)*												0
		TOTAL										750	20.5
Mini Project or Internship (3-4 weeks) shall be conducted during summer break after II semester and will be assessed during III semester													

*** List of MOOCs (NPTL) Based Recommended Courses for first year B. Tech Students**

1. Developing Soft Skills and personality-Odd Semester-8 Weeks-3 Credits
2. Enhancing Soft Skills and personality-Even Semester-8 Weeks-3 Credits

*** AICTE Guidelines in Model Curriculum:**

After successful completion of 160 credits, a student shall be eligible to get Under Graduate degree in Engineering. A student will be eligible to get Under Graduate degree with Honours only, if he/she completes additional university recommended courses only (Equivalent to 20 credits; NPTEL Courses of 4 Weeks, 8 Weeks and 12 Weeks shall be of 2, 3 and 4 Credits respectively) through MOOCs. For registration to MOOCs Courses, the students shall follow NPTEL Site http://nptel.ac.in/ as per the NPTEL policy and norms. The students can register for these courses through NPTEL directly as per the course offering in Odd/Even Semesters at NPTEL. These NPTEL courses (recommended by the University) may be cleared during the B. Tech degree program (not necessary one course in each semester). After successful completion of these MooCs courses the students, shall, provide their successful completion NPTEL status/certificates to the University (COE) through their college of study only. The student shall be awarded Hons. Degree (on successful completion of MOOCS based 20 credit) only if he/she secures 7.50 or above CGPA and passed each subject of that Degree Programme in single attempt without any grace marks.

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CHEMISTRY

Module-1 [08]

Atomic and Molecular Structure:

Molecular orbital's of diatomic molecules. Band theory of solids. Liquid crystal and its applications. Point defects in solids. Structure and applications of Graphite and Fullerenes. Concepts of Nanomaterials and its application.

Module-2 [08]

Spectroscopic techniques and Applications:

Elementary idea and simple applications of Rotational, Vibrational, Ultraviolet& Visible and Raman spectroscopy.

Module-3 [08]

Electrochemistry

Nernst Equation and application, relation of EMF with thermodynamic functions (ΔH, ΔF and ΔS). Lead storage battery.

Corrosion; causes, effects and its prevention.

Phase Rule and its application to water system.

Module-4 [08]

Water Analysis; Hardness of water, Techniques for water softening (Lime-soda, Zeolite, Ion exchange resin and Reverse osmosis method).

Fuels: classification of fuels, Analysis of coal, Determination of calorific value (Bomb calorimeterand Dulong'smethos).

Module-5 [08]

Polymer; Basic concepts of polymer-Blend and composites, Conducting and biodegradable polymers. Preparation and application of some industrially important polymers (Buna-S, Buna-N, Neoprene, Nylon-6, nylon-6,6 and Terylene). General methods of synthesis of organometallic compounds (Grignard reagent) and their applications.

Course Outcomes:

1. Use of different analytical instruments.
2. Measure molecular/system properties such as surface tension, viscosity, conductance of solution, chloride and iron content in water.
3. Measure hardness of water.
4. Estimate the rate constant of reaction.

Reference Books:

1. University Chemistry By B.H. Mahan
2. University Chemistry By C.N.R. Rao
3. Organic Chemistry By I.L. Finar
4. Physical Chemistry By S. Glasstone
5. Engineering Chemistry By S.S. Dara
6. Polymer Chemistry ByFre W., Billmeyer
7. Engineering ChemistryBy Satya Prakash

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CHEMISTRY- PRACTICAL

LIST OF EXPERIMENTS

1. Determination of alkalinity in the given water sample.
2. Determination of temporary and permanent hardness in water sample using EDTA.
3. Determination of iron content in the given solution by Mohr's method.
4. Determination of viscosity of given liquid.
5. Determination of surface tension of given liquid.
6. Determination of chloride content in water sample.
7. Determination of available chlorine in bleaching powder.
8. Determination of pH by pH-metric titration.
9. Preparation of Phenol-formaldehyde and Urea-formaldehyde resin.
10. Determination of Cell constant and conductance of a solution.
11. Determination of rate constant of hydrolysis of esters.
12. Verification of Beer's law.

NOTE: Choice of any 10 experiments from the above. Institute can change any 02 experiments from the aforesaid experiments.

Course Outcomes:

1. Use of different analytical instruments.
2. Measure molecular/system properties such as surface tension, viscosity, conductance of solution, chloride and iron content in water.
3. Measure hardness of water.
4. Estimate the rate constant of reaction.

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In Pursuit of Excellence	Syllabus Adopted by the Program	SESSION-2019-2020 SEM- I /II Subject Code : KAS 102/KAS 202

CHEMISTRY

Module-1 Atomic and Molecular Structure: Molecular orbital's of diatomic molecules. Band theory of solids. Liquid crystal and its applications. Point defects in solids. Structure and applications of Graphite and Fullerenes. Concepts of Nanomaterials and its application. ***Hydrogen Bonding* (CO1)***

Module-2 Spectroscopic techniques and Applications: Elementary idea and simple applications of Rotational, Vibrational, Ultraviolet& Visible and Raman spectroscopy. ***Mass Spectroscopy* (CO2)***

Module-3 Electrochemistry Nernst Equation and application, relation of EMF with thermodynamic functions (ΔH, ΔF and Δ S). Lead storage battery. Corrosion; causes, effects and its prevention. Phase Rule and its application to water system. ***Fuel Cell* (CO3)***

Module-4 Water Analysis; Hardness of water, Techniques for water softening (Lime-soda, Zeolite, Ion exchange resin and Reverse osmosis method). Fuels: classification of fuels, Analysis of coal, Determination of calorific value (Bomb calorimeterand Dulong"smethos). ***Boiler feed water – Specification and effects on boiler due to impure water* (CO4)***

Module-5 Polymer; Basic concepts of polymer-Blend and composites, Conducting and biodegradable polymers. Preparation and application of some industrially important polymers (Buna-S, Buna-N, Neoprene, Nylon-6, nylon-6,6 and Terylene). General methods of synthesis of organometallic compounds (Grignard reagent) and their applications. ***Thermosetting resins- Bakelite, UF resin, MF resin* (CO5)***

*** Beyond the AKTU Syllabus**

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In Pursuit of Excellence	**Course Outcomes**	SESSION-2019-2020 SEM- I

Chemistry (KAS-102)		
Course Outcome(CO)		**Bloom's Knowledge Level (KL)**
At the end of course, the students will be able to		
CO 1	Discuss the Molecular Orbital Theory and Apply on diatomic molecules and Understanding/Concepts of Band theory of Solids, Point defects in solids, Liquid Crystals and Nano materials.	Understanding
CO 2	Knowledge of elementary ideas and application of spectral techniques (Rotational, Vibrational, Ultraviolet & Visible and Raman spectroscopy).	Applying
CO 3	Define Electrochemistry, Nernst Equation and application, Lead storage battery and State corrosion, causes & prevention, Phase Rule and its application on water system.	Remember
CO 4	Understanding/concepts/knowledge of hardness of water, Techniques uses for softening of hard water. Remember/knowledge of fuels and its classification, Techniques uses for analysis of coal and determination of calorific value (Bomb calorimeter and Dulong's methods).	Applying
CO 5	Basic understanding of Polymers, Polymer blends, Polymer composites, biodegradable polymers, conducting polymers.Understanding/knowledge of preparation, applications of some industrially important polymers. Understanding/Concepts of Synthesis and application of Grignard Reagent.	Understanding

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In Pursuit of Excellence	**Course Delivery Method**	SESSION-2019-2020
		SEM- I

Name of Subject: Chemistry

Subject Code: KAS-102

Course Plan

Delivery Methods: **Chalk & Talk, Power Point Presentation, Tutorials, solving Numericals/Practicals, Assignments.**

Coverage of

Unit 1 by: - Chalk & Talk, Power Point Presentation, Tutorials, Assignment

Unit 2 by: - Chalk & Talk, Tutorials, Assignment.

Unit 3 by: - Chalk & Talk Power Point Presentation, Tutorials, and Assignment.

Unit 4 by: - Chalk & Talk Tutorials, Assignments, and Practical.

Unit 5 by: - Chalk & Talk, Power Point Presentation, Tutorials, brain storming question, Assignment.

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In Pursuit of Excellence	Mapping	SESSION-2019-2020 SEM- I Subject Code : KAS-102

CO – PO Matrix of Course

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO-1	2	2			2							2
CO-2	2	2		2		2						2
CO-3	3	3		2								
CO-4	2	2					3					2
CO-5	3	2			3	3	3					2

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MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD
FACULTY TIME TABLE -2019-20 (ODD SEMESTER)
w.e.f. 30/09/2019

FACULTY NAME – Dr. NITIN KUMAR AGRAWAL (NKA)

L	T	P	Total
9	4	9	22

TIME / DAY	9.00-10.00 am	10.00-11.00am	11.00 -12.00 Noon	12.00 - 01.00pm	01.00-2.00pm	2.00-3.00pm	3.00-4.00pm	4.00-5.00pm
MON		KAS-102(L) 1ST B A-313		RAR-106(L) 1st B.Arch. H- 209	LUNCH	KAS-102(T) 1ST B1 A-317	KAS-102(T) 1ST B3 A-322	Special class KAS-102(L) 1st B A- 313
TUE				KAS-102(L) 1ST B A-313		KAS-102(P) 1ST A1 A-211		
WED	KAS-102(P) 1ST B2 A-211			KAS-102(T) 1ST B2 A-318				
THU	KAS-102(L) 1ST B A-313			RAR-106(T) 1st B.Arch. H- 209		KAS-102(P) 1ST B1 A-211		
FRI						KAS-102(L) 1ST B A-313		
SAT	KAS-102(L) 1ST B A-313		KAS-102(L) 1ST B A-313			Special class KAS-102(L) 1st B A- 313		

SUBJECT CODE & SUBJECT
KAS-102 – Engg. Chemistry
KAS-102P – Engg. Chemistry Lab
RAR- 106 – EVS

(Dr. Lalit Mohan Trivedi)
(Deptt: Coordinator Time-Table)
30/9/19

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In Pursuit of Excellence	Lecture Plan & Course Coverage	SESSION-2019-2020 SEM- I[st] Subject Code : KAS-102

Total Period: 54

Sr. No.	No. of Periods	Topics/Sub Topics	Reference Books	CO Covered	Planned Date	Coverage Date	Sign
1.	1	Introduction to Course Educational Objective, Course Outcomes, Scheme, Adopted Syllabus, PEOs, POs, PSOs Pre-requisite, Vision & Mission of Institute and Department			17/8/19	17/8/19	
1a	2	Atomic and Molecular Structure: Molecular orbital theory and its applications in diatomic molecules.	R2	CO 1	17/8/19 19/8/19 20/8/19	17/8/19 19/8/19 20/8/19	
2	1	Band theory of solids	R3	CO 1	22/8/19	22/8/19	
3	1	Liquid crystals (Types and advantage)	R4	CO 1	26/8/19	26/8/19	
4	1	Liquid crystals and its Applications	R4	CO 1	27/8/19	27/8/19	
5	1	Point defects in solids	R2	CO 1	29/8/19	29/8/19	
6	1	Structure and applications of Graphite	R2	CO 1	30/8/19	30/8/19	
7	1	Structure and applications of Fullerenes	R2	CO 1	31/8/19	31/8/19	
8	1	Concepts of nano-materials and its application	R4	CO 1	02/9/19	02/9/19	
		Topic beyond the syllabus					
9	1	*Hydrogen Bonding*	R7	CO 1	3/9/19	3/9/19	
10	1	Elementary ideas and simple applications of Rotational spectroscopy	R4	CO 2	5/9/19	5/9/19	
11	1	NMR Spectroscopy	R4	CO 2	6/9/19	6/9/19	
12	1	Application of NMR Spectroscopy	R4	CO 2	7/9/19	7/9/19	
13	1	Vibrational spectroscopy	R4	CO 2	9/9/19	9/9/19	
14	1	Application of Vibrational Spectroscopy	R4	CO 2	9/9/19	9/9/19	
15	1	Ultraviolet & Visible spectroscopy	R3, R4	CO 2	16/9/19	16/9/19	
16	1	Application of Ultraviolet & Visible spectroscopy	R3, R4	CO 2	17/9/19	17/9/19	
17	1	Raman spectroscopy	R3	CO 2	18/9/19	19/9/19	
18	1	Application of Raman spectroscopy	R3	CO 2	20/9/19	20/9/19	
		Topic beyond the syllabus					
19	1	*Mass Spectroscopy*	R8	CO 2	21/9/19	21/9/19	
20	2	Electro Chemistry, Nernst equation and application	R4	CO 3	23/9/19 26/9/19	23/9/19 26/9/19	
21	1	Relation of EMF with thermodynamic functions	R2, R3	CO 3	27/9/19	27/9/19	

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22	1	Lead storage battery	R3	CO 3	28/9/19	28/9/19	
23	1	Corrosion, causes and types of corrosion	R1, R5	CO 3	30/9/19	30/9/19	
24	1	Wet mechanism of corrosion	R5	CO 3	1/10/19	1/10/19	
25	1	Prevention of corrosion	R4	CO 3	3/10/19	3/10/19	
26	1	Phase rule	R4	CO 3	4/10/19	4/10/19	
27	1	Phase rule application to one component system (water)	R2	CO 3	5/10/19	5/10/19	
		Topic beyond the syllabus					
28	1	*Fuel Cell*	R4	CO 3	10/10/19	10/10/19	
29	1	Water Analysis : Potable water, Hardness of water, Types of. hardness	R3, R4	CO 4	11/10/19	11/10/19	
30	1	Units of hardness, Degree of hardness, Disadvantages of hard water	R3, R4	CO 4	12/10/19	12/10/19	
31	1	Techniques for water softening : Zeolite process (advantage and uses)	R2, R5	CO 4	14/10/19	14/10/19	
32	1	Lime Soda process (advantage and uses)	R4	CO 4	15/10/19	15/10/19	
33	1	Ion exchange process (Structure, working, advantages, Uses)	R3	CO 4	17/10/19	17/10/19	
34	1	Reverse osmosis process (advantage and uses)	R4	CO 4	18/10/19	18/10/19	
		Topic beyond the syllabus					
35	1	*Boiler feed water – Specification and effects on boiler due to impure water*	R2	CO 4	19/10/19	19/10/19	
36	1	Fuels : classification of fuels, Calorific values, units of calorific values	R2, R6	CO 4	31/10/19	31/10/19	
37	1	Determination of calorific values by bomb calorimeter Determination of calorific values by dulong's method	R2, R3, R4	CO 4	1/11/19	1/11/19	
38	1	Analysis of Coal -proximate analysis of coal	R3	CO 4	2/11/19	2/11/19	
39	1	Ultimate analysis of coal	R4	CO 4	4/11/19	4/11/19	
40	1	Polymer, stereo structure of polymer	R3, R5	CO 5	05/11/19	05/11/19	
41	2	Conducting polymers,	R4	CO 5	7/11/19 8/11/19	7/11/19 8/11/19	
42	1	Biodegradable polymers	R4	CO 5	14/11/19	14/11/19	
43	1	Blends	R2	CO 5	15/11/19	15/11/19	
44	1	composites	R2	CO 5	16/11/19	16/11/19	
45	1	Preparation and applications of some industrially important polymers BUNA-N, BUNA-S,	R2, R3, R4	CO 5	18/11/19	18/11/19	
46	1	Neoprene, Nylon-6	R2, R3, R4	CO 5	18/11/19	18/11/19	
47	1	Nylon-66, Terylene	R2, R3, R4	CO 5	19/11/19	19/11/19	

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		Topic beyond the syllabus					
48	1	*Thermosetting resins- Bakelite, UF resin, MF resin*	R3	CO 5	19/11/19	19/11/19	
49	1	General methods of synthesis of organo metallic compound (Grignard Reagent)	R4, R8	CO 5	21/11/19	21/11/19	
50	1	Application of organo metallic compounds in polymerization and catalysis	R2, R8	CO 5	22/11/19	22/11/19	

Reference Books	R1: Engineering by P C Jain & Monika Jain By Dhanpat Rai Publication
	R2: Engineering Chemistry by R K Agarwal , Krishna Prakshan
	R3:Engineering Chemistry by Shashi Chawla , Dhanpat Rai Publication
	R4: Comprehensive engineering Chemistry By Sunita Rattan, S K Kataria & Sons
	R5: Dara, S S , A Text Book of Engg. Chemistry, S. Chand Publication
	R6: Engineering Chemistry Author: Abhijit Mallick, Viva Books
	R7: Concise Inorganic Chemistry by J.D. Lee; Wiley India
	R8: Organic Chemistry by Morrison and Boyd ; Pearson Education

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In Pursuit of Excellence	**Tutorial-1**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Chemical Bonding

Tutorial 1 [CO - 1]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	**Atomic and Molecular Structure :** Molecular orbital theory and its applications in diatomic molecules, Band theory of solids	B1 19/8/19	B2 21/8/19	B3 19/8/19	

Q. No.	
1.	Draw the molecular orbital diagram of B_2 molecule.
2.	Write the electronic configuration of H_2 , H_2^+. Establish their stability order based on calculation of bond order.
3.	With the help of molecular diagram, arrange the following molecules/ions in order of their increasing stability O_2 ,$O_2^+$and O_2^-.
4.	Draw molecular orbital diagram of NO^+ . Calculate its bond order and predict its magnetic properties.
5.	Write the electronic configuration of N_2 , N_2^+ , N_2^- and N_2^{-2}. Establish their stability order based on calculation of bond. Also write their magnetic character.

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In Pursuit of Excellence	**Tutorial-2**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Liquid Crystal

Tutorial 2 [CO - 1]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	Liquid crystals (Types and advantage), Liquid crystals and its Applications, Point defects in solids, Structure and applications of Graphite & Fullerenes, Concepts of nano-materials and its application	B1 26/8/19	B2 28/8/19	B3 26/8/19	

Q. No.	
1.	What are liquid crystals? How they are classified?
2.	Give five important applications of liquid crystals.
3.	What do you understand by crystal imperfections?
4.	Distinguish between nematic and smectic liquid crystals.
5.	Explain how graphite shows conductivity?

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In Pursuit of Excellence	**Tutorial-3**	SESSION-20219-2020 SEM- I[st] Subject Code: KAS-102 Topic – Spectroscopy

Home Assignments

Unit 2[CO- 2]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	Elementary ideas and simple applications of Rotational spectroscopy, Vibrational spectroscopy, Ultraviolet & Visible spectroscopy, Raman spectroscopy.	B1 02/9/19	B2 04/9/19	B3 02/09/19	

Q. No.	
1.	Explain the Ultra Violet Visible Spectroscopy.
2.	Write the principle of IR spectroscopy and explain the significance of Finger print region.
3.	Write short note on (a) Chemical shift (b) Shielding & de-shielding in NMR technique
4.	How many NMR signals obtained in CH_3OH and $CH_3 – CO-CH_3$

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In Pursuit of Excellence	**Tutorial-4**	SESSION-2019-2020
		SEM- I[st] Subject Code: KAS-102 Topic – Electrochemistry

Tutorial 4 [CO - 3]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	Electro Chemistry, Nernst equation and application, Relation of EMF with thermodynamic functions, Lead storage battery.	B1 9/9/19	B2 11/9/19	B3 9/9/19	

Q.No.	
1.	Distinguish between single electrode potential and standard electrode potential.
2.	Write the difference between EMF and potential difference.
3.	Calculate the cell potential of the given cell at 25° C. (R = 8.31 J K^{-1} mol^{-1}, F = 96500 C mol^{-1}. Ni/Ni^{+2} (0.01M) ‖ Cu^{+2} (0.1M)/Cu Given: $E^{o}_{Cu^{+2}/Cu} = +0.34$, $E^{o}_{Ni^{+2}/Ni} = -0.25$ V
4.	Calculate the EMF of the following cell and also write the cell reactions. Zn/Zn^{+2} (0.001M) ‖ Ag^{+}/Ag (0.1M) The standard electrode potential of Ag/ Ag^{+} half cell is 0.80 V and Zn/Zn^{+2} is -0.76 V
5.	The voltage of the cell $Pb/PbSO_4/Na_2SO_4.10H_2O/Hg_2SO_4/Hg$ is 0.9647 V at 25° C. The temperature coefficient is 1.74 X 10^{-4} VK^{-1}. Calculate the values of ΔG, ΔS and ΔH.

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In Pursuit of Excellence	**Tutorial-5**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Corrosion, Phase Rule

Tutorial 5 [CO - 3]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	Corrosion, causes and types of corrosion ,wet mechanism of corrosion, Prevention of corrosion, Phase rule application to one component system (water)	B1 16/9/19	B2 18/9/19	B3 16/9/19	

Q.No.	
1.	Explain the sacrificial anodic protection method for prevention of corrosion.
2.	Write the factors which affect the rate of corrosion.
3.	Write short notes on the following (a) Phase (b) component (c) Degree of freedom (d) Triple point
4.	Explain why KCl-NaCl-H_2O should be regarded as a three component system whereas KCl-NaBr-H_2O should be regarded as a four component system?
5.	Determine the number of components for the following systems: (i) Water (liquid) is in equilibrium with water vapour (ii) CH_3COOH (aq.) (iii) NaCl (aq.)

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In Pursuit of Excellence	**Tutorial-6**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Water Treatment

Tutorial 6 [CO - 4]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	Potable water, Hardness of water, ,Types of hardness, Units of hardness, Degree of hardness, Disadvantages of hard water, Techniques for water softening : Zeolite process (advantage and uses), Lime Soda process (advantage and uses), Ion exchange process (Structure, working, advantages, Uses), Reverse osmosis process (advantage and uses), *Boiler feed water – Specification and effects on boiler due to impure water*	B1 23/9/19	B2 25/9/19	B3 30/9/19	

Q.No.	
1.	Why is it conventional of express hardness of water in terms of $CaCO_3$ at the international level?
2.	100 ml of water sample has hardness equivalent to 12.5 ml of 0.08 N $MgSO_4$ solutions. Calculate the hardness of this water sample.
3.	Why does magnesium bicarbonate require double amount of lime for softening?
4.	The hardness of 10,000 litres of water sample was removed by passing it through a zeolite softener. The zeolite softener then required 200 litres of sodium chloride solution containing 50g/L of NaCl for regeneration. Calculate the hardness of water sample.
5.	What is hardness of water?

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In Pursuit of Excellence	Tutorial-7	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Water Treatment

Tutorial 7 [CO - 4]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	Potable water, Hardness of water, ,Types of hardness, Units of hardness, Degree of hardness, Disadvantages of hard water, Techniques for water softening : Zeolite process (advantage and uses), Lime Soda process (advantage and uses), Ion exchange process (Structure, working, advantages, Uses), Reverse osmosis process (advantage and uses), *Boiler feed water – Specification and effects on boiler due to impure water*	B1 30/9/19	B2 09/10/19	B3 14/10/19	

Q.No.	
1.	Define Potable water.
2.	Calculate the quantity of lime and soda required for softening 50000 liter of water containing the following impurities: $Ca(HCO_3)_2$ = 9.2 mg/L , $Mg(HCO_3)_2$ = 7.9 mg/L, $CaSO_4$ = 15.3 mg/L , $MgCl_2$ = 3 mg/L, NaCl = 4.3 mg/L.
3.	A sample of water on analysis was found to contain the following impurities :

Impurity	Quantity (mg/L)	Mol. wt.
$Ca(HCO_3)_2$	4	162
$Mg(HCO_3)_2$	6	146
$CaSO_4$	8	136
$MgSO_4$	10	120

Calculate the temporary, permanent and total hardness of water in ppm.

4.	Convert 50 ppm hardness of water in terms of mg/L and degree French.
5.	A water sample contains 408 mg of $CaSO_4$ per litre. Calculate the hardness in terms of $CaCO_3$ equivalents.

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In Pursuit of Excellence	**Tutorial-8**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Fuel

Tutorial 8 [CO - 4]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	Classification of fuels, Calorific values, units of calorific values, Determination of calorific values by bomb calorimeter, Determination of calorific values by dulong's method, Analysis of Coal - proximate analysis of coal, Ultimate analysis of coal.	B1 3/10/19	B2 16/10/19	B3 4/11/19	

Q.No.	
1.	The percentage composition of coal sample is C= 75% ,H_2 = 6% , N_2 = 6% ,O_2 =3%, S =2%, Ash =5%,Moisture = 3% . Calculate the quantity of air needed for complete combustion of 1Kg of coal, if 50% excess of air is supplied.
2.	Calculate the weight and volume of air required for combustion of 3 kg of carbon.
3.	The following data is obtained in a bomb calorimeter experiments: Weight of crucible + Fuel = 4.578g , Weight of crucible = 3.649g ,Mass of water in calorimeter = 200g,Water equivalent of calorimeter = 570g,Observed rise in temperature =2.3^{0}C, Cooling Correction = 0.047^{0}C, Acid correction = 62.6 calories, Fuse wire correction = 3.8^{0}C,Cotton thread Correction=1.6 cal. Calculate the GCV fuel sample. If the fuel contains 6.5 % H,determine the NCV.
4.	0.80 g sample of solid fuel was completely combusted in excess of oxygen using bomb Calorimeter. The rise in temperature of water in calorimeter was 2.5^{0}C. Calculate the High calorific value of the fuel. If water taken in caiorimeter is 2000 g and water equivalent of caiorimeter is 2200 g. Also calculate low calorific value. (Given : % Hydrogen in fuel = 2.2)
5.	The a coal sample has the following composition by weight: C = 90%, O= 3%, S= 0.5%, N= 0.5% and ash= 2.5%. Net calorific value of the coal was found to be 8490.5 kcal/kg. Calculate the percentage of hydrogen and gross calorific value.

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In Pursuit of Excellence	**Tutorial-9**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Polymer

Tutorial 9 [CO - 5]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	Polymer, stereo structure of polymer, Conducting polymers, Biodegradable polymers, Blends and composites, Preparation and applications of some industrially important polymers BUNA-N, BUNA-S, Neoprene, Nylon-6, Nylon-6,6, Terylene.	B1 14/10/19	B2 6/11/19	B3 18/11/19	

Q. No.	
1.	What are polymers?
2.	Classify the polymers on the basis of configuration or Tacticity.
3.	Discuss the mechanism of the preparation of polypropylene using Zeiglar-Natta catalyst.
4.	Write the monomer of Neoprene and Terylene.
5.	Classify the polymers on the basis of structure.

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In Pursuit of Excellence	**Tutorial-10**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – organo metallic compound (Grignard Reagent)

Tutorial 10 [CO - 5]

Sr. No.	No. of Periods	Topics/Sub Topics	Coverage Date			Sign
			Batch	Batch	Batch	
1.	1	General methods of synthesis of organo metallic compound (Grignard Reagent), Application of organo metallic compounds in polymerization and catalysis	B1 4/11/19	B2 13/11/19	B3 22/11/19	

Q.No.	
1.	What are organometallic compounds?
2.	Classify the organometallic compounds.
3.	Give the structure of any sandwich organometallic compound.
4.	Prepare silicon rubber by using Grignard reagents?
5.	From Grignard reagents, how will you prepare ketone & carboxylic acid?

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In Pursuit of Excellence	**ASSIGNMENT - 1**	SESSION-2019-2020
		SEM- Ist Subject Code: KAS-102 Topic – Chemical Bonding

Home Assignments

Unit 1[CO- 1]

1.	Differentiate between bonding and anti-bonding molecular orbitals?
2.	Give the silent features of MOT.
3.	Wha is metallic bonding? Explain metallic bonding on the basis of MOT (Band Theory).
4.	Draw the molecular orbital diagram of CO molecule.
5.	Show molecular orbital s of HF molecule with the help of diagram & calculate bond order.
6.	Explain conductor, semi conductor and insulator on the basis of band theory.

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In Pursuit of Excellence	**ASSIGNMENT - 2**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Liquid Crystal

Home Assignments

Unit 1[CO- 1]

1.	Discuss the structure, preparation, properties and applications of fullerenes?
2.	What are thermotropic liquid crystals? Explain all types of thermotropic liquid crystals.
3.	Explain lyotropic liquid crystals and classify them on the basis of concentration.
4.	Write a short note on Graphite.
5.	What do you understand by crystal imperfections? Explain various types of defects arise in solid crystals due to imperfections.
6.	Write a short note on nano-materials.

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In Pursuit of Excellence	ASSIGNMENT - 3	SESSION-2019-2020
		SEM- I[st] Subject Code: KAS-102 Topic – Spectroscopy

Home Assignments

Unit 2[CO- 2]

1.	Explain the NMR spectroscopy.
2.	Explain the various applications of ultra-violet spectroscopy.
3.	Explain the terms: (a) Red Shift or Bathochromic Shift (b) Auxochrome
4.	Write the principle of IR spectroscopy and explain the significance of Finger print region.
5.	Write short note on (a) Chemical shift (b) Shielding & de-shielding in NMR technique (c) TMS
6.	Explain the Raman spectroscopy.

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In Pursuit of Excellence	**ASSIGNMENT - 4**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Electrochemistry

Home Assignments

Unit 3[CO- 3]

1.	What is salt bridge? Discuss its role in electrochemical cells.
2.	What is SHE? How does it help in measurement of electrode potential of an electrode?
3.	Derive Nernst' s equation for single electode potential and explain the terms involved in it.
4.	What is electrochemical series? Discuss its applications.
5.	Write short note on lead storage battery.
6.	Write short note on electrochemical cell.

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In Pursuit of Excellence	**ASSIGNMENT - 5**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Corrosion, Phase-Rule

Home Assignments

Unit 3[CO- 3]

1.	What are corrosion inhibitors? Explain how anodic and cathodic inhibitor provides protection against corrosion?
2.	Describe the mechanism of electrochemical or wet corrosion with help of reactions.
3.	Define phase with an example.
5.	Draw a neat labeled diagram of water system and explain areas, curves and triple point into it.
6.	Describe the advantages and limitations of Phase Rule?

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In Pursuit of Excellence	**ASSIGNMENT - 6**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Water Treatment

Home Assignments

Unit 4[CO- 4]

1.	Explain the Ion exchange process for the removal of hardness of water.
2.	What do you mean by term permutit? Describe Zeolite or Permitit process for softening of hard water.
3.	What are boiler troubles? How can scale formation be prevented?
4.	What are the disadvantages of using hard water?
5.	Explain the Lime-Soda process.

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In Pursuit of Excellence	ASSIGNMENT - 7	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Water Treatment

Home Assignments

Unit 4[CO- 4]

1.	Write the structure of cation exchange resin and anion exchange resin.
2.	Explain the reverse osmosis for desalination of brackish water.
3.	What are different units of hardness of water? Write relationship between them.
4.	Discuss the problems created by hard water in boiler.
5.	Write merits and demerits of Zeolite process.

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In Pursuit of Excellence	ASSIGNMENT - 8	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Fuel

Home Assignments

Unit 4[CO- 4]

1.	How fuels are commonly classified?
2.	How would you determine the calorific value of a fuel by Bomb calorimeter? Explain with the help of a neat diagram.
3.	What is meant by calorific value of a fuel?
4.	Explain why the value of GCV is greater than NCV.
5.	Explain the proximate analysis and ultimate analysis.

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In Pursuit of Excellence	**ASSIGNMENT - 9**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – Polymer

Home Assignments

Unit 5 [CO- 5]

1.	Give preparation, properties , uses of the following polymer molecules (i) Nylon-6 (ii) Nylon-6,6 (iii) Terylene (iv) Buna-N (v) Buna-S (vi) Neoprene
2.	Discuss polymer blends with their properties and uses.
3.	Write a short note on bio degradable polymers.
4.	What are conducting polymers? Write the structure & application of polypyrrole and polythiophene. Discuss about conducting nature of these polymers.
5.	What are composite materials? How are they classified?

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In Pursuit of Excellence	**ASSIGNMENT - 10**	SESSION-2019-2020 SEM- I[st] Subject Code: KAS-102 Topic – organo metallic compound (Grignard Reagent)

Home Assignments

Unit 5 [CO- 5]

1.	What are Grignard reagents? Give their preparation and synthesis uses.
2.	How will you synthesis following compounds from Grignard reagents? (i) Primary Alcohol (ii) Secondry Alcohol (iii) Tertiary Alcohol
3.	Write the reaction of Grignard reagents with R_2NH, CO_2, CH_3CH_2OH and ester.
4.	Write the application of Grignard reagent.
5.	Write the reaction of Grignard reagents with HCHO

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FINAL CLASS LIST

MIT, Moradabad
B. Tech. 1st Semester [2019 – 20]

SECTION-B **Branch – CS**

S No	ST.NO.	Reg. No	Name	Father's Name	Branch Allotted	MOB.NO
1.	1910114	RB145	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	CS	9897024422
2.	1910079	RB81	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	CS	
3.	1910012	RB14	HIMANSHU	HEMPAL SINGH	CS	8279799553, 9412822172
4.	1910233	RB224	ISHA CHAUDHARY	PANKAJ MALIK	CS	9761457145, 9759600650
5.	1910248		IQRA NAAZ	DOST MOHD	CS	7906650995
6.	1910080	RB 73	JATIN	VIJAY KUMAR	CS	7017476367, 9654377111
7.	1910002	RB13	JAY PRAKASH	THAN SINGH	CS	7248294929, 8958426561
8.	1910069	RB113	KASHISH SAXENA	VINAY KUMAR SAXENA	CS	9837968419, 8057227501
9.	1910166	RB171	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	CS	9761820676, 9719429929
10.	1910148	RB138	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	CS	9927606038, 7906947772
11.	1910157	RB203	KISHAN KUMAR	VINOD KUMAR	CS	9997396870, 7983845141
12.	1910152	CB22	KRATIKA	TRILOKI NATH	CS	9720945325
13.	1910007	RB23	KUNAL VERMA	SANJEEV KUMAR VERMA	CS	8005446374, 9412134703
14.	1910013	RB91	LAKSHYA DUGGAL	RAKESH DUGGAL	CS	9457132040, 9897886757
15.	1910072	RB89	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	CS	9808194068, 8954473111
16.	1910094	RB166	MAAZ KHAN	S. KHAN	CS	9368045036
17.	1910092	RB147	MADHAV	LAKSHMI KANT	CS	7017138127
18.	1910022	RB65	MANAN MAHROTRA	MANU MEHROTRA	CS	9412245207
19.	1910070	RB42	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	CS	8273051705
20.	1910039	RB46	MANU VERMA	SUNIL KUMAR VERMA	CS	9412448682, 9917736314
21.	1910115	RB134	MAYANK PRATAP SINGH	RAJEEV KUMAR	CS	9837013903, 9411673675
22.	1910066	RB92	MITALI SINGH	DALIP KUMAR	CS	9456011593
23.	1910126	CB14	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	CS	7302396759
24.	1910207	RB182	MOHAMMAD FAISAL	NAZARUL HASAN	CS	8077248538, 9759776562
25.	1910146	RB200	MOHAMMAD FAZAL	MOHAMMAD ANIS	CS	9368759305
26.	1910249		MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	CS	7895419925
27.	1910052	RB121	MOHAMMAD RAZI	MOHAMMAD ASHKAR	CS	9837252157, 7060394895
28.	1910227	RB222	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	CS	9358896452, 6396619465
29.	1910186	CB35	MOHAMMAD UVAIS	SAKIR HUSAIN	CS	8433032265
30.	1910241	RB230	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	CS	7017191926, 9837071963
31.	1910201	RB188	MOHD. ADIL	MOHD. SHAMSHER SAIFI	CS	8193048728, 9927367102
32.	1910024	RB17	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	CS	9412650515
33.	1910148	RB148	MOHD. ATIF	NAFEES AHMED	CS	6398366290
34.	1910121	CB10	MOHD. BILAL	GULZAR HUSAIN	CS	8279920904
35.	1910223	RB219	MOHD. HARIS	QAMAR ISLAM	CS	9058550285, 7983133625
36.	1910218	RB218	MOHD. MOHSIN	YUSUF ALI	CS	9654820966, 9105996713

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37.	1910099	RB123	MOHD. SAHDEEN	MOBEEN	CS	9528442881, 7500938231
38.	1910200	RB189	MOHD. SHUAIB	MOHD. KAMIL	CS	9756378328, 8859099156
39.	1910180	RB52	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	CS	8630015243
40.	1910134	RB174	MUSKAN SINGH	LATE. SANJAY SINGH	CS	9760454145, 9897215458
41.	1910211	RB95	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	CS	9997426106, 8433218924
42.	1910196	CB39	NAWAZ ARIF	ARIF ALI	CS	8755395040
43.	1910067	RB62	NEERAJ KUMAR	RISHIPAL SINGH	CS	7017680897, 8273984345
44.	1910171	CB30	NIDHI	GAJRAJ SINGH	CS	9412581795
45.	1910015	RB84	NIKITA CHAUDHARY	VINAY KUMAR	CS	7088110746, 9837080635
46.	1910036	RB25	NIKUNJ RASTOGI	SHYAM RASTOGI	CS	7983162884
47.	1910133	RB88	NIPURN SINHA	ALOK SINHA	CS	9412144922, 9412138419
48.	1910164	RB49	NISHANT GUPTA	MUNISH KUMAR GUPTA	CS	9837312624, 8449934845
49.	1910172	RB152	PALAK TRIPATHI	PANKAJ TRIPATHI	CS	9837637924, 9412969401
50.	1910213	RB170	PANKAJ KUMAR PAL	RAJENDRA SINGH	CS	9410281161, 9412539142
51.	1910154	CB24	PANKAJ KUMAR SINGH	MAHAVEER SINGH	CS	9837384910, 7253820903
52.	1910082	RB149	PRACHI	JAIPRAKASH	CS	9758904869

Batch – B 1	1 – 17
Batch – B 2	18 – 34
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Dr Nitin Agarwal
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MIT, Moradabad
B. Tech. 1st Semester [2019 – 20]

SECTION-A **Branch – CS**

S.No	ST.NO.	Reg. No	Name	Father's Name	Branch Allotted	MOB.NO
1.	1910096	RB119	AAKASH KASHYAP	BRAJESH KUMAR	CS	8171266952, 9410283655
2.	1910104	RB3	ABDUL BASIT	MERAJ UDDIN YANI	CS	9897747795
3.	1910004	RB32	ABDUL HANNAN	MOHD. MATEEN	CS	9997944278, 9997921408
4.	1910095	RB58	ABDUL KAIF	SAEED AHMAD	CS	9719912346
5.	1910202	RB6	ABDUL MUTTALIB	MOHD. NAZIM	CS	9897468458
6.	1910219	RB68	ABHIRAJ VARSHNEY	DILIP KUMAR VARSHNEY	CS	9457556227, 9758446208
7.	1910108	RB157	ABHISHEK KUMAR	BHOODEV SINGH	CS	9627891458
8.	1910033	RB8	ABHISHEK KUMAR YADAV	YOGENDRA YADAV	CS	9837172111
9.	1910043	RB94	ABHISHEK RANA	AJAY PAL SINGH	CS	9719580715, 8077685329
10.	1910238	RB111	ABHISHEK YADAV	RAJMANGAL YADAV	CS	6392589684, 6388921780
11.	1910093	CB07	ADITYA AGARWWAL	KAPIL MOHAN AGARWAL	CS	7351192525
12.	1910212	RB202	AKASH GUPTA	PANKAJ GUPTA	CS	9634031482, 7037183938
13.	1910120	RB183	AKASH NAVEEN	DR. NAVEEN BOSE	CS	9412367664, 8077393137
14.	1910029	RB77	AKSHITA SARIN	ATUL SARIN	CS	7599075233, 8171451461
15.	1910203	RB213	ALVIRA FAHEEM	FAHEEM AHMED	CS	9359706541
16.	1910141	RB185	AMAN KUMAR	MR. BANWARI LAL	CS	7668676028
17.	1910129	CB16	AMAN KUMAR MAURYA	MANOJ MAURYA	CS	9554736344
18.	1910016	RB69	AMAN SAINI	VINOD KUMAR SAINI	CS	7017865422, 721728667
19.	1910019	RB9	ANANT TIWARI	BISHAN DUTT TIWARI	CS	6396349558, 9456057505
20.	1910230	RB150	ANCHAL SINGH	OMVEER SINGH	CS	9412838747
21.	1910018	RB11	ANIL	ANEK SINGH	CS	8171577855, 9027105611
22.	1910056	RB30	ANMOL SRIVASTAVA	MUKESH SRIVASTAVA	CS	9410416416
23.	1910078	RB60	ANTRA MAHESHWARI	MAHENDER MAHESHWARI	CS	9528297373, 9219744438
24.	1910113	RB136	ANU SHARMA	MAHESH CHAND SHARMA	CS	9639461912, 6399843032
25.	1910091	RB177	ANUBHAV BHARDWAJ	MANVENDRA SHASAN	CS	9837112199, 6395517373
26.	1910087	RB140	ANUSHREE KAUSHIK	RITESH CHANDRA KAUSHIK	CS	7500326597, 6399037205
27.	1910204	RB151	ARVIND MAURYA	CHATRAPAL	CS	9368138382, 9627954204
28.	1910199	RB160	ARYABH PRAJAPATI	SANJAY BABU	CS	8630062693, 9997948941
29.	1910048	RB51	ASHISH SINGH	VISHAL SINGH	CS	6398921030, 7088326394
30.	1910123	RB168	ASHUTOSH SHARMA	SUSHIL KUMAR SHARMA	CS	8006920922
31.	1910038	RB122	AYUSH GUPTA	RAJEEV KUMAR GUPTA	CS	9548052566, 9837053924
32.	1910229	RB221	BHOOPENDRA SINGH GOLA	RAM GOPAL SINGH	CS	9927041132, 8077102819

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33.	1910055	RB53	DEEKSHA GUPTA	NITIN KUMAR GUPTA	CS	9897126121, 8273385013
34.	1910244	RB229	DEVANSH BHATNAGAR	G.P. BHATNAGAR	CS	9456042888, 0591-2417888
35.	1910188	RB196	DEVANSH NATH TIWARI	ALOK TIWARI	CS	7088607080, 7668036089
36.	1910105	RB97	DEVENDRA SINGH	SOMPAL SINGH	CS	9627755750, 6397351377
37.	1910085	CB06	DHAIRYA HANS	ISH KUMAR HANS	CS	
38.	1910064	RB135	DHRUV RASTOGI	ASHWANI KUMAR	CS	9319433485, 9412245485
39.	1910147	RB191	DIPENDRA	MAHAVEER SINGH	CS	7533829999, 7351179000
40.	1910088	RB96	DIVYANG BHATNAGAR	PRADUMAN KRISHNA	CS	6398324818, 7906652748
41.	1910119	RB128	DIVYANSH SHARMA	SANJAY SHARMA	CS	9412411098
42.	1910073	CB01	DIVYANSHU GAHLOT	DINESH KUMAR	CS	
43.	1910090	RB100	FAIZ AYYUB	MR. AYYUB ALI	CS	9758214614
44.	1910086	RB175	FARAZ AKBAR	JAMAAL AKBAR	CS	6395142714, 8899083621
45.	1910102	RB59	GARIMA AGARWAL	VIKAS AGARWAL	CS	9927011133
46.	1910135	RB192	GARVIT RAJPUT	RAJEEV KUMAR	CS	7078273635, 9456804565
47.	1910089	RB47	GEETANJALI CHAUHAN	ANURAG KUMAR	CS	7060932062, 9720969080
48.	1910032	RB35	HAMMAD ALI	RAIS AHMAD	CS	9528568029
49.	1910170	RB209	HARSH CHOUDHARY	ANIL KUMAR	CS	9458547516, 9756936727
50.	1910068	RB70	HARSH RUHELA	SUNIL KUMAR	CS	9412474909, 8077200680

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Dr Nitin Agarwal
Dean Academics

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

1st Year 1st Semester - B (2019)

Attendance up to 05/09/2019 **KAS-102**

S.No.	Branch	Name of the Student	Father's Name	Attend	Held
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	17	17
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	17	17
3	CS	HIMANSHU	HEMPAL SINGH	17	17
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	16	17
5	CS	IQRA NAAZ	DOST MOHD	8	17
6	CS	JATIN	VIJAY KUMAR	17	17
7	CS	JAY PRAKASH	THAN SINGH	11	17
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	17	17
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	16	17
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	17	17
11	CS	KISHAN KUMAR	VINOD KUMAR	17	17
12	CS	KRATIKA	TRILOKI NATH	16	17
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	15	17
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	16	17
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	17	17
16	CS	MAAZ KHAN	S. KHAN	11	17
17	CS	MADHAV	LAKSHMI KANT	7	17
18	CS	MANAN MAHROTRA	MANU MEHROTRA	15	17
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	17	17
20	CS	MANU VERMA	SUNIL KUMAR VERMA	17	17
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	14	17
22	CS	MITALI SINGH	DALIP KUMAR	17	17
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	11	17
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	15	17
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	12	17
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	10	10
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	17	17
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	11	17
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	9	17
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	14	17
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	11	17
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	17	17
33	CS	MOHD. ATIF	NAFEES AHMED	15	17
34	CS	MOHD. BILAL	GULZAR HUSAIN	14	17
35	CS	MOHD. HARIS	QAMAR ISLAM	10	17
36	CS	MOHD. MOHSIN	YUSUF ALI	7	17
37	CS	MOHD. SAHDEEN	MOBEEN	17	17
38	CS	MOHD. SHUAIB	MOHD. KAMIL	12	17
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	17	17
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	6	17
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	13	17
42	CS	NAWAZ ARIF	ARIF ALI	11	17
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	17	17
44	CS	NIDHI	GAJRAJ SINGH	17	17
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	17	17
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	16	17
47	CS	NIPURN SINHA	ALOK SINHA	15	17
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	16	17
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	17	17
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	16	17
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	17	17
52	CS	PRACHI	JAIPRAKASH	17	17

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HOD (ASH)
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MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD
1st Year 1st Semester - B (2019) Batch B1, B2
Attendance up to 05/09/2019 KAS-102P

S.No.	Branch	Name of the Student	Father's Name	Lab	
				Attend	Held
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	3	3
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	3	3
3	CS	HIMANSHU	HEMPAL SINGH	3	3
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	2	3
5	CS	IQRA NAAZ	DOST MOHD	2	3
6	CS	JATIN	VIJAY KUMAR	3	3
7	CS	JAY PRAKASH	THAN SINGH	2	3
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	3	3
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	3	3
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	3	3
11	CS	KISHAN KUMAR	VINOD KUMAR	3	3
12	CS	KRATIKA	TRILOKI NATH	3	3
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	3	3
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	3	3
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	3	3
16	CS	MAAZ KHAN	S. KHAN	2	3
17	CS	MADHAV	LAKSHMI KANT	2	3
18	CS	MANAN MAHROTRA	MANU MEHROTRA	3	3
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	3	3
20	CS	MANU VERMA	SUNIL KUMAR VERMA	3	3
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	2	3
22	CS	MITALI SINGH	DALIP KUMAR	3	3
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	3	3
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	2	3
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	3	3
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	2	2
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	3	3
28	CS	MOHAMMAD SHAVEZ SIDDI	SHAMEEM AHMAD SIDDIQUI	3	3
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	2	3
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	3	3
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	2	3
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	3	3
33	CS	MOHD. ATIF	NAFEES AHMED	2	3
34	CS	MOHD. BILAL	GULZAR HUSAIN	3	3

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

Attendance Dates From: 20-08-2019 to 05-09-2019

Paper Code - KAS-102P

• Session: 2019-2020 • Course: B.Tech • Year: 1st • Section: A, Batch A1

S. No.	Name	Roll Number	Attend	Held
1	Aakash Kashyap	1900820100001	3	3
2	Abdul Hannan	1900820100002	3	3
3	Abdul Kaif	1900820100003	2	3
4	Abdul Muttalib	1900820100004	3	3
5	Abdul Basit	1900820100005	3	3
6	Abhiraj Varshney	1900820100006	3	3
7	Abhishek Kumar	1900820100007	3	3
8	Abhishek Rana	1900820100008	2	3
9	Abhishek Kumar Yadav	1900820100009	3	3
10	Abhishek Yadav	1900820100010	3	3
11	Aditya Agarwwal	1900820100011	3	3
12	Akash Gupta	1900820100012	3	3
13	Akash Naveen	1900820100013	1	3
14	Akshita Sarin	1900820100014	2	3
15	Alvira Faheem	1900820100015	2	3
16	Aman Kumar	1900820100017	1	3
17	Aman Kumar Maurya	1900820100018	3	3

Dr. Manish Saxena
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MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

1st Year 1st Semester - B (2019)

Attendance up to 17/10/2019 **KAS-102**

S.No.	Branch	Name of the Student	Father's Name	Attend	Held
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	47	49
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	45	49
3	CS	HIMANSHU	HEMPAL SINGH	48	49
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	42	49
5	CS	IQRA NAAZ	DOST MOHD	26	49
6	CS	JATIN	VIJAY KUMAR	49	49
7	CS	JAY PRAKASH	THAN SINGH	38	49
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	39	49
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	47	49
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	44	49
11	CS	KISHAN KUMAR	VINOD KUMAR	44	49
12	CS	KRATIKA	TRILOKI NATH	46	49
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	42	49
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	45	49
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	42	49
16	CS	MAAZ KHAN	S. KHAN	36	49
17	CS	MADHAV	LAKSHMI KANT	39	49
18	CS	MANAN MAHROTRA	MANU MEHROTRA	45	49
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	46	49
20	CS	MANU VERMA	SUNIL KUMAR VERMA	42	49
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	40	49
22	CS	MITALI SINGH	DALIP KUMAR	44	49
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	39	49
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	37	49
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	34	49
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	33	42
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	43	49
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	40	49
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	34	49
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	42	49
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	39	49
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	44	49
33	CS	MOHD. ATIF	NAFEES AHMED	39	49
34	CS	MOHD. BILAL	GULZAR HUSAIN	36	49
35	CS	MOHD. HARIS	QAMAR ISLAM	32	48
36	CS	MOHD. MOHSIN	YUSUF ALI	28	48
37	CS	MOHD. SAHDEEN	MOBEEN	46	48
38	CS	MOHD. SHUAIB	MOHD. KAMIL	41	48
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	43	48
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	21	48
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	37	48
42	CS	NAWAZ ARIF	ARIF ALI	41	48
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	47	48
44	CS	NIDHI	GAJRAJ SINGH	43	48
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	43	48
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	43	48
47	CS	NIPURN SINHA	ALOK SINHA	32	48
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	45	48
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	44	48
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	45	48
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	42	48
52	CS	PRACHI	JAIPRAKASH	46	48

Dr. Manish Saxena
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M.I.T., Moradabad

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD
1st Year 1st Semester - B (2019) Batch B1, B2
Attendance up to 17/10/2019 KAS-102P

S.No.	Br.	Name of the Student	Father's Name	Lab	
				Attend	Held
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	8	8
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	7	8
3	CS	HIMANSHU	HEMPAL SINGH	8	8
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	6	8
5	CS	IQRA NAAZ	DOST MOHD	4	8
6	CS	JATIN	VIJAY KUMAR	8	8
7	CS	JAY PRAKASH	THAN SINGH	6	8
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	7	8
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	8	8
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	7	8
11	CS	KISHAN KUMAR	VINOD KUMAR	6	8
12	CS	KRATIKA	TRILOKI NATH	8	8
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	8	8
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	8	8
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	6	8
16	CS	MAAZ KHAN	S. KHAN	7	8
17	CS	MADHAV	LAKSHMI KANT	6	8
18	CS	MANAN MAHROTRA	MANU MEHROTRA	8	8
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	7	8
20	CS	MANU VERMA	SUNIL KUMAR VERMA	7	8
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	7	8
22	CS	MITALI SINGH	DALIP KUMAR	6	8
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	8	8
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	5	8
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	6	8
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	6	7
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	7	8
28	CS	MOHAMMAD SHAVEZ	SHAMEEM AHMAD SIDDIQUI	8	8
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	5	8
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	8	8
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	6	8
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	7	8
33	CS	MOHD. ATIF	NAFEES AHMED	6	8
34	CS	MOHD. BILAL	GULZAR HUSAIN	6	8

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Attendance Dates From: 20-08-2019 to 17-10-2019

Paper Code - KAS-102P

• Session: 2019-2020 • Course: B.Tech • Year: 1st • Section: A, Batch A1

S. No.	Name	Roll Number	Attend	Held
1	Aakash Kashyap	1900820100001	6	6
2	Abdul Hannan	1900820100002	6	6
3	Abdul Kaif	1900820100003	5	6
4	Abdul Muttalib	1900820100004	5	6
5	Abdul Basit	1900820100005	6	6
6	Abhiraj Varshney	1900820100006	6	6
7	Abhishek Kumar	1900820100007	4	6
8	Abhishek Rana	1900820100008	4	6
9	Abhishek Kumar Yadav	1900820100009	6	6
10	Abhishek Yadav	1900820100010	5	6
11	Aditya Agarwwal	1900820100011	6	6
12	Akash Gupta	1900820100012	6	6
13	Akash Naveen	1900820100013	3	6
14	Akshita Sarin	1900820100014	5	6
15	Alvira Faheem	1900820100015	4	6
16	Aman Kumar	1900820100017	4	6
17	Aman Kumar Maurya	1900820100018	6	6

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MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD
1st Year 1st Semester - B (2019)
Attendance up to 23/11/2019

S.No.	Branch	Name of the Student	Father's Name	Attend	Held
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	64	74
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	59	70
3	CS	HIMANSHU	HEMPAL SINGH	74	78
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	57	70
5	CS	IQRA NAAZ	DOST MOHD	48	78
6	CS	JATIN	VIJAY KUMAR	68	70
7	CS	JAY PRAKASH	THAN SINGH	59	78
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	57	70
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	67	70
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	59	70
11	CS	KISHAN KUMAR	VINOD KUMAR	62	70
12	CS	KRATIKA	TRILOKI NATH	62	70
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	55	78
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	62	70
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	53	70
16	CS	MAAZ KHAN	S. KHAN	50	74
17	CS	MADHAV	LAKSHMI KANT	59	74
18	CS	MANAN MAHROTRA	MANU MEHROTRA	62	70
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	66	74
20	CS	MANU VERMA	SUNIL KUMAR VERMA	54	70
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	58	70
22	CS	MITALI SINGH	DALIP KUMAR	60	70
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	61	74
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	56	74
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	47	70
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	56	70
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	62	78
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	58	78
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	53	74
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	54	70
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	63	78
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	65	78
33	CS	MOHD. ATIF	NAFEES AHMED	58	74
34	CS	MOHD. BILAL	GULZAR HUSAIN	50	70
35	CS	MOHD. HARIS	QAMAR ISLAM	56	77
36	CS	MOHD. MOHSIN	YUSUF ALI	48	77
37	CS	MOHD. SAHDEEN	MOBEEN	65	69
38	CS	MOHD. SHUAIB	MOHD. KAMIL	64	73
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	59	69
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	47	77
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	53	73
42	CS	NAWAZ ARIF	ARIF ALI	62	73
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	65	69
44	CS	NIDHI	GAJRAJ SINGH	60	69
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	58	69
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	60	69
47	CS	NIPURN SINHA	ALOK SINHA	45	73
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	69	77
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	64	69
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	66	69
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	56	69
52	CS	PRACHI	JAIPRAKASH	63	69

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MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD
1st Year 1st Semester - B (2019) Batch B1, B2
Attendance up to 23/11/2019 KAS-102P

S.No.	Br.	Name of the Student	Father's Name	Lab	
				Attend	Held
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	10	11
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	10	11
3	CS	HIMANSHU	HEMPAL SINGH	11	11
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	8	11
5	CS	IQRA NAAZ	DOST MOHD	6	11
6	CS	JATIN	VIJAY KUMAR	11	11
7	CS	JAY PRAKASH	THAN SINGH	8	11
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	9	11
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	11	11
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	9	11
11	CS	KISHAN KUMAR	VINOD KUMAR	8	11
12	CS	KRATIKA	TRILOKI NATH	10	11
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	8	11
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	11	11
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	8	11
16	CS	MAAZ KHAN	S. KHAN	9	11
17	CS	MADHAV	LAKSHMI KANT	9	11
18	CS	MANAN MAHROTRA	MANU MEHROTRA	11	11
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	9	11
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26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	9	11
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28	CS	MOHAMMAD SHAVEZ	SHAMEEM AHMAD SIDDIQUI	11	11
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Attendance Dates From: 20-08-2019 to 23-11-2019

Paper Code - KAS-102P

• Session: 2019-2020 • Course: B.Tech • Year: 1st • Section: A

S. No.	Name	Roll Number	Attend	Held
1	Aakash Kashyap	1900820100001	8	8
2	Abdul Hannan	1900820100002	8	8
3	Abdul Kaif	1900820100003	6	8
4	Abdul Muttalib	1900820100004	7	8
5	Abdul Basit	1900820100005	8	8
6	Abhiraj Varshney	1900820100006	8	8
7	Abhishek Kumar	1900820100007	5	8
8	Abhishek Rana	1900820100008	6	8
9	Abhishek Kumar Yadav	1900820100009	8	8
10	Abhishek Yadav	1900820100010	7	8
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17	Aman Kumar Maurya	1900820100018	7	8

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Moradabad Institute of Technology, Moradabad

Test Paper -1
MM – 15

Subject –Chemistry
Session 2019-20 (Odd Sem)

Code–KAS -102
Time – 1 hrs.

Note: ***This Question paper contains seven questions and all questions are compulsory.***

Q. 1	**Define Frenkel defect in solids.**	Marks- 1	CO-1
Q.2	**With the help of Band Theory, Explain Conductors, Semiconductors and Insulators.**	Marks- 2	CO-1
Q.3	**With the help of Molecular Orbital electronic configuration, Calculate bond order & magnetic character of following:** (a) O_2 (b) O_2^+ (c) CO (d) N_2 (e) N_2^+	Marks- 3	CO-1
Q.4	**What are liquid crystals? Describe the various types of Thermotropic liquid crystals.**	Marks- 3	CO-1
Q.5	**Define Chemical Shift in NMR Spectroscopy.**	Marks- 1	CO-2
Q.6	**Predict the number of NMR signals and splitting pattern in following compounds:** (a) CH_3- CH_2 – Cl (b) $\overset{a}{CH_3}$- O- $\overset{b}{CH_2}$- $\overset{c}{CH_3}$	Marks- 2	CO-2
Q.7	**Write a brief note on U.V. Spectroscopy** OR **Write a brief note on NMR Spectroscopy**	Marks- 3	CO-2

Frenkel Defects :- These defects are created when an ion leave its original lattice site and occupies an interstitial site e.g ZnS, AgCl, AgBr etc.

Q.3 → O_2 → $\sigma 1s^2, \sigma^* 1s^2, \sigma 2s^2, \sigma^* 2s^2, \sigma 2p_z^2, \pi 2p_x^2 = \pi 2p_y^2$
$\pi^* 2p_x^1 = \pi^* 2p_y^1$

B.O → $\frac{10-6}{2} = 2$, Paramagnetic

→ O_2^+ → $\frac{10-5}{2} = 2.5$, Paramagnetic

→ CO → $\sigma 1s^2, \sigma^* 1s^2, \sigma 2s^2, \sigma^* 2s^2, \pi 2p_x^2 = \pi 2p_y^2, \sigma 2p_z^2$
B.O → $\frac{10-4}{2} = 3$ Diamagnetic

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$N_2 \rightarrow \sigma 1s^2, \sigma^* 1s^2, \sigma 2s^2, \sigma^* 2s^2, \pi 2p_x^2 = \pi 2p_y^2, \sigma 2p_z^2$

$$B.O = \frac{10-4}{2} = 3, \text{ Diamagnetic}$$

$N_2^+ \rightarrow B.O. \rightarrow \frac{9-4}{2} = \frac{5}{2} = 2.5$, Paramagnetic

Q.4. chalestral benzoate $\xrightleftharpoons{145^\circ}$ liquid crystal Phase $\xrightleftharpoons{179^\circ C}$ Liquid

Q.6 $\overset{a}{CH_3}-\overset{b}{O}-\overset{c}{CH_2}-CH_3$ three signals

for Proton a → Singlet

b → (3+1) quartet

c → (2+1) Triplet

→ $\overset{a}{CH_3}\ \overset{b}{CH_2}-Cl$

two signals

For Proton (a) → (2+1) Triplet

" " (b) → (3+1) Quartet

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Ram Ganga Vihar, Phase-2, Moradabad

Department of Applied Sciences and Humanities

Class Test – 2

Course : B.Tech
Session 2019-20 (Odd Sem)
Subject: Chemistry
Max Marks : 15

Semester : 1st
Section: A, B, C
Subject Code : KAS- 102
Time : 75 min.

Q.No.	1	2	3	4	5	6
CO No.	CO-4	CO-3	CO-3	CO-3	CO-3	CO-4

Note: ***This Question paper contains six questions and all questions are compulsory.***

	Section A		
Q. 1	Why is it conventional of express hardness of water in terms of $CaCO_3$ equivalent at the international level? Also explain how hardness is converted into $CaCO_3$ equivalent.	**Marks- 2**	**CO-4**
Q.2	Explain the sacrificial anodic protection method for prevention of corrosion.	**Marks- 2**	**CO-3**
Q.3	Calculate the EMF of the following cell and also write the cell reactions. Zn/Zn^{+2} (0.001M) ‖ Ag^{+}/Ag (0.1M) The standard electrode potential of Ag/Ag^{+} half cell is 0.80 V and Zn/Zn^{+2} is -0.76 V	**Marks- 2**	**CO-3**
	Section B		
Q4.	Draw a neat labeled Phase diagram of water system and explain areas, curves and triple point into it.	**Marks- 3**	**CO-3**
Q.5	Write short note on lead storage battery.	**Marks- 3**	**CO-3**
Q.6	Calculate the temporary and permanent hardness of water containing the following impurities: $Ca(HCO_3)_2$ = 9.2 mg/L , $Mg(HCO_3)_2$ = 7.9 mg/L, $CaSO_4$ = 15.3 mg/L , $MgCl_2$ = 3 mg/L , NaCl = 4.3 mg/L. Also show the temporary and permanent hardness in degree clark.	**Marks- 3**	**CO-4**

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M.I.T., Moradabad

(6)

$Ca(HCO_3)_2 = 9.2 \times \frac{50}{81} = 5.68$

$Mg(HCO_3)_2 = 7.9 \times \frac{50}{73} = 5.41$

$CaSO_4 = 15.3 \times \frac{50}{68} = 11.25$

$MgCl_2 = 3 \times \frac{100}{95} = 3.16$

14.41

T.H. $11.09 \times 0.07 = 0.776$ °Cl

P.H. 1.0087 °Cl

60

$Zn \rightarrow Zn^{2+} + 2e^-$

$2Ag^+ + 2e^{\ominus} \rightarrow 2Ag \times 2$

$Zn + 2Ag^+ \rightarrow Zn^{+2} + 2Ag$

$$E = E^0 - \frac{0.0591}{n} \log \frac{[Zn^{+2}]}{[Ag^+]^2}$$

$$(E^0_R - E^0_L) - \frac{0.0591}{2} \log \frac{[0.001] \times 10 \times 10}{[0.1] \times 0.1 \times 10^3}$$

$$= -0.80 - 0.76 - \frac{0.0591}{2} \log 10^{-1}$$

$$= -1.56 + \frac{0.0591}{2}$$

$$= -1.56 + 0.0295$$

$$\boxed{E = -1.5305}$$

$$E = E^0 - \frac{0.0591}{n} \log.$$

E^0 cell = Oxdi Pot. + Red. Pot.

$= -0.76 - 0.80$

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Q-5 During Discharging -

AT Anode - $Pb_{(s)} + SO_4^{-2}{}_{(aq)} \rightarrow PbSO_{4(s)} + 2e^{\ominus}$

AT Cathode - $PbO_{2(s)} + SO_4^{-2}{}_{(aq)} + 4H^+ + 2e^{\ominus} \rightarrow PbSO_{4(s)} + 2H_2O$

$Pb + PbO_2 + 4H^+ + 2SO_4^{-2} \rightarrow 2PbSO_4 + 2H_2O$

SET - 1

Moradabad Institute of Technology, Moradabad
Ram Ganga Vihar, Phase-2, Moradabad
Department of Applied Sciences and Humanities
Class Test – 3

Course : B.Tech
Session 2019-20 (Odd Sem)
Subject: Chemistry
Max Marks : 15

Semester : 1st
Section: A, B, C
Subject Code : KAS- 102
Time : 75 min.

Q.No.	1	2	3	4	5	6
CO No.	CO-4	CO-4	CO-5	CO-4	CO-5	CO-5

Note: ***This Question paper contains six questions and all questions are compulsory.***

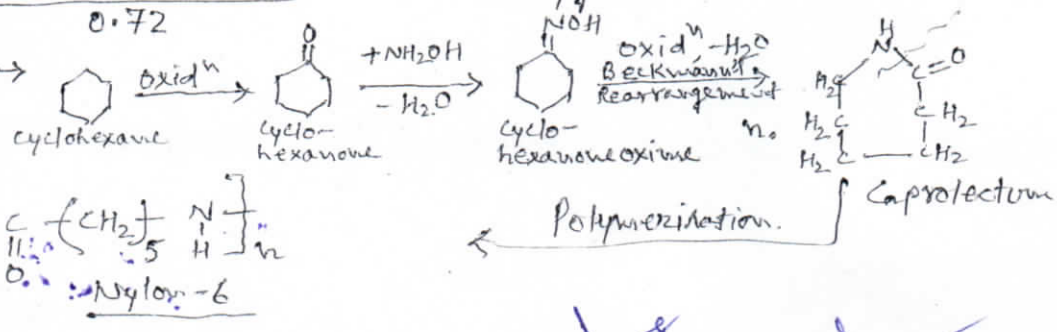
	Section A		
Q. 1	Why does magnesium bicarbonate require double amount of lime for softening?	**Marks- 2**	**CO-4**
Q.2	Calculate GCV of the coal sample having C = 80%, H = 9%, O = 4% N =1.5%, S = 2.5% and ash = 3%. 9452 ~~8935~~ Cal/gm	**Marks- 2**	**CO-4**
Q.3	What are Bio-degradable polymers ? Discuss their application.	**Marks- 2**	**CO-5**
	Section B		
Q4.	Explain the construction and working of bomb calorimeter. 0.72 gram of a fuel containing 80% carbon, when burnt in a bomb calorimeter, increased the temperature of water from 27.3° to 29.1° C. If the calorimeter contains 250 g of H_2O and its water equivalents is 150 g. Calculate the HCV of the fuel. 1000 Cal/gm	**Marks- 3**	**CO-4**
Q.5	Give preparation, properties and applications of following polymers: (i) Nylon-6 (ii) Buna-N (iii) Terylene	**Marks- 3**	**CO-5**
Q.6	What are Grignard reagents? How are they prepared? Give any four synthetic applications of Grignard reagents.	**Marks- 3**	**CO-5**

1. $Mg(HCO_3)_2 + 2\,Ca(OH)_2 \longrightarrow 2\,CaCO_3 \downarrow + Mg(OH)_2 + 2H_2O$
   As 1 mole of $Mg(HCO_3)_2$ = 2 moles of $Ca(OH)_2$

2. $GCV = \frac{1}{100}\left[8080\times80 + 34500\left(9-\frac{4}{2}\right) + 2240\times2.5\right] = \cancel{8935}$ ~~Cal/gm.~~ 9452.5 cal/g

4. $HCV = \frac{(250+150)(29.1-27.3)}{0.72} = 1000$ Cal/gm.

5. (i) Nylon-6 →



Nylon-6

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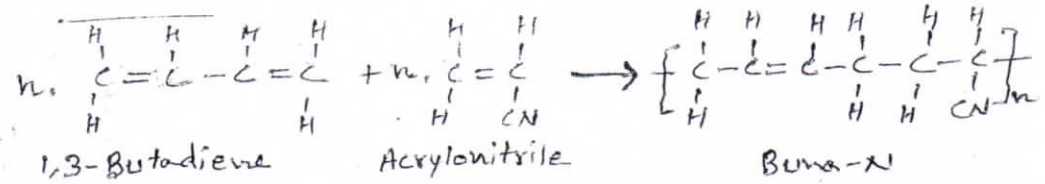
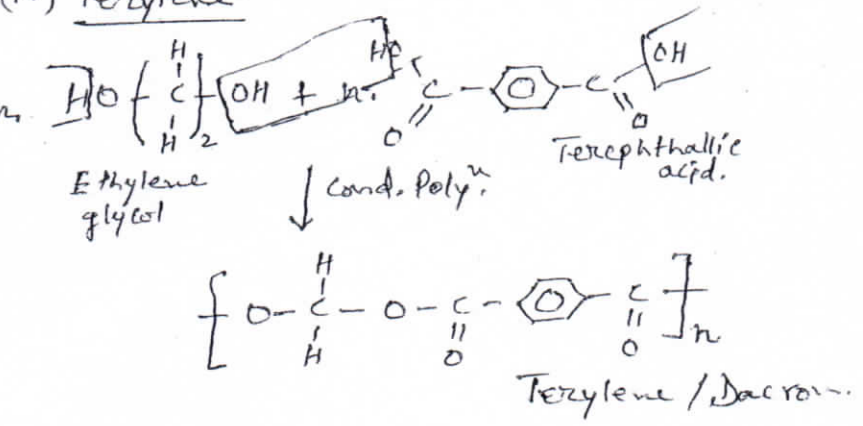
HOD (ASH)
M.I.T., Moradabad

5. (ii) Buna-N —



5. (iii) Terylene —



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Moradabad Institute of Technology, Moradabad
Ram Ganga Vihar, Phase-2, Moradabad
Department of Applied Sciences and Humanities
Make up Class Test – 3

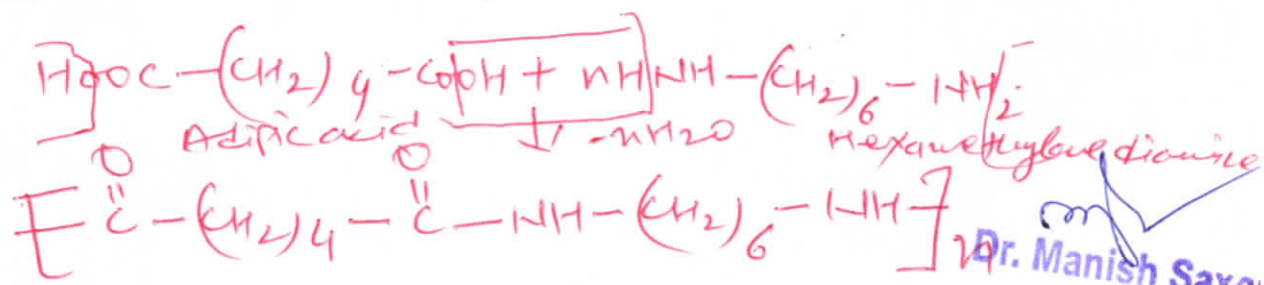
Course : B.Tech | **Semester : 1st**
Session 2019-20 (Odd Sem) | **Section: A, B, C**
Subject: Chemistry | **Subject Code : KAS- 102**
Max Marks : 15 | **Time : 1 Hr.**

Q.No.	1	2	3	4	5	6
CO No.	CO-4	CO-4	CO-5	CO-4	CO-4	CO-5

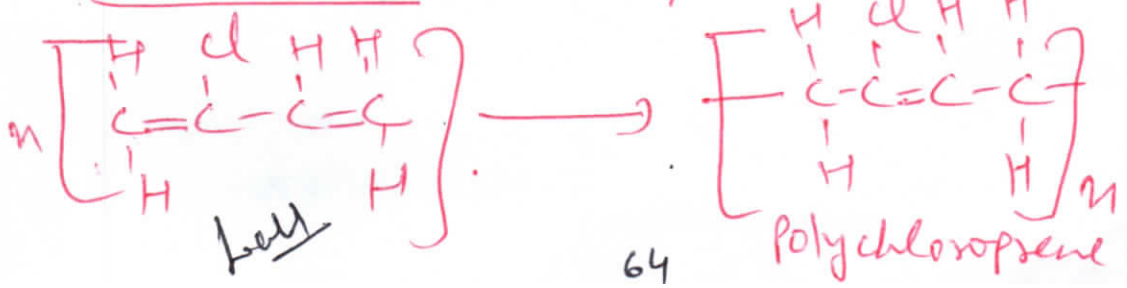
Note: ***This Question paper contains six questions and all questions are compulsory.***

	Section A		
Q.1	What is hardness of water?	**Marks- 2**	**CO-4**
Q.2	Give the classification of fuel.	**Marks- 2**	**CO-4**
Q.3	What do you understand by Organometallic compounds?	**Marks- 2**	**CO-5**
	Section B		
Q4.	Describe Zeolite or Permutit process for softening of hard water.	**Marks- 3**	**CO-4**
Q.5	Explain the construction and working of bomb calorimeter.	**Marks- 3**	**CO-4**
Q.6	Give preparation and applications of following polymers: (i) Nylon-6,6 (ii) Terylene (iii) Neoprene	**Marks- 3**	**CO-5**

(1) Nylon 6,6 Hexamethylene diamine and Adipic acid



(2) Neoprene → chloroprene



Polychloroprene or Neoprene.

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CT-1

Subject Teacher. Dr. Nitin Agarwal

MIT Group of Institutions, Moradabad

ATTENDANCE SHEET

Session: 2019-20 | Class Test I / II / III

Date: 12/9/19 | Shift: 1st | Room No: B-309

Year: 1st | Semester: 1st | Section/Branch: B

Subject Name: Chemistry | Subject Code: KAS-102

S. No	Roll No.	Name of Student	Branch	Signature
1.	21	Mayank Pratap Singh	CS	Mayank
2.	22	Mitali Singh	CS	Mitali
3.	24	Mohd. Faisal	CS	Faisal
4.	25	Mohd Fazal.	CS	[illegible]
5.	26	Mohd. Hammad Zaid	CS	Hamid
6.	27	Mohammad. Razi	CS	[illegible]
7.	30	Mohan Krishna Gupta	CS	[illegible]
8.	32	Mohd. Arman ul Haq	CS	Arman
9.	33	Mohd. Atif	CS	Atif
10.	34	Mohammad Bilal	CS	M. Bilal
11.	37	Mohd. Sahdeen	CS	Sahdeen
12.	38	Mohd Shuaib	CS	Shuaib
13.	39	Mohd Zaid Ullah Khan	CS	Zaid
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.		7 Students Debarred		
22.				
23.				
24.				
25.				
26.				
27.				
28.		Dr. Manish Saxena HOD (ASH) M.I.T., Moradabad		
29.				
30.				

Total No. of Students allotted in Room: 20 | Students Absent: — | Students Present: 13

Invigilators: 1) Name Puneet Kr. Sign: 12/9

2) Name Zubair Iqbal Sign: 12/9

Subject Teacher: Mr. Nitin Kr. Agrawal

MIT Group of Institutions, Moradabad

ATTENDANCE SHEET

Session: 2019-20 | **Class Test I / II / III**

Date: 12-9-19 | **Shift:** I | **Room No:** B-306

Year: I | **Semester:** I | **Section/Branch:** B

Subject Name: Chemistry | **Subject Code:** KAS-102

S. No	Roll No.	Name of Student	Branch	Signature
1.	1	Harshit Saxena	CS	HS
2.	2.	Harshit Sharma	CS	Sharma
3.	3.	Himanshu	CS	Himanshu
4.	4.	Isha Chaudhary	CSE	[illegible]
5.	5.	Jatin	CS	Jatin
6.	7	Jayprakash	CS	Jayprakash
7.	8	Kashish Saxena	CS	Kashish
8.	9	Keshav Kumar Mishra	CS	K.K. Mishra
9.	10	Khyati Shankhwar	CSE	Khyati
10.	11	Kishan Kumar	CS	Kishan
11.	12	Kratika	CS	Kratika
12.	13	Kunal Verma	CS	Kunal
13.	14	Lakshya Duggal	CS	[illegible]
14.	15	Lakshya Pratap Singh	CS	Lakshya
15.	16	Maaz Khan	CS.	Maaz
16.	18	Manan Mehrotra	CS	Manan
17.	19	Mansi Varshney	CS	Mansi
18.	20	Manu Verma	CS	Manu
19.				
20.		IQRA		
21.		MADHAV } Debarred.		
22.				
23.				
24.				
25.				
26.				
27.		Dr. Manish Saxena		
28.		HOD (ASH)		
29.		M.I.T., Moradabad		
30.				

Total No. of Students allotted in Room: 18 **Students Absent:** 00 **Students Present:** 18

Invigilators: 1) Name Mohd. Ilyas **Sign:** Ilyas

2) Name Richa Saxena **Sign:**

Subject Teacher: Dr. Nitin Agarwal

MIT Group of Institutions, Moradabad

ATTENDANCE SHEET

Session: 2019-20

Class Test I / II / III

Date: 12/9/19 Shift: 1st Room No: B-311

Year: 1st Semester: 1st Section/Branch: B/CS

Subject Name: Chemistry Subject Code: KAS-102

S. No	Roll No.	Name of Student	Branch	Signature
1.	43	Neeraj Kumar	CS	Neeraj
2.	45 (old Roll no.)	Nipun Sinha	CS	Nipun
3.	41	Navjeet Singh Malhotra	CS	Navjeet
4.	44	Nidhi	CS	Singh
5.	45	Nikita Chaudhary	CS	Nikita
6.	46	Nikunj Rastogi	CS	Nikunj
7.	48	Nishant Gupta	CS	Nishant
8.	49	Palak Tripathi	CS	Palak
9.	50	Pankaj Kr. Pal	CS	[illegible]
10.	[illegible]	Pankaj Kr. Singh	CS	Pankaj
11.	52	Prachi	CS	Prachi
12.				
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Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

Total No. of Students allotted in Room: 11 Students Absent: 00 Students Present: 11

Invigilators: 1) Name Mr. Sanjeev Gupta Sign:

2) Name Ms. Shweta Agarwal Sign: Shweta 12/9/19

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD
1st Year 1st Semester - B (2019)
CT-1 Attendance, KAS-102

S.No.	Br.	Name of the Student	Father's Name	
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	P
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	P
3	CS	HIMANSHU	HEMPAL SINGH	P
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	P
5	CS	IQRA NAAZ	DOST MOHD	D
6	CS	JATIN	VIJAY KUMAR	P
7	CS	JAY PRAKASH	THAN SINGH	P
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	P
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	P
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	P
11	CS	KISHAN KUMAR	VINOD KUMAR	P
12	CS	KRATIKA	TRILOKI NATH	P
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	P
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	P
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	P
16	CS	MAAZ KHAN	S. KHAN	P
17	CS	MADHAV	LAKSHMI KANT	D
18	CS	MANAN MAHROTRA	MANU MEHROTRA	P
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	P
20	CS	MANU VERMA	SUNIL KUMAR VERMA	P
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	P
22	CS	MITALI SINGH	DALIP KUMAR	P
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	D
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	P
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	P
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	P
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	P
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	D
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	D
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	P
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	D
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	P
33	CS	MOHD. ATIF	NAFEES AHMED	P
34	CS	MOHD. BILAL	GULZAR HUSAIN	P
35	CS	MOHD. HARIS	QAMAR ISLAM	D
36	CS	MOHD. MOHSIN	YUSUF ALI	D
37	CS	MOHD. SAHDEEN	MOBEEN	P
38	CS	MOHD. SHUAIB	MOHD. KAMIL	P
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	P
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	D
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	P

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

42	CS	NAWAZ ARIF	ARIF ALI	D
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	P
44	CS	NIDHI	GAJRAJ SINGH	P
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	P
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	P
47	CS	NIPURN SINHA	ALOK SINHA	P
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	P
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	P
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	P
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	P
52	CS	PRACHI	JAIPRAKASH	P

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

CT-2

Subject Teacher: Dr. Nitin Agarwal.

MIT Group of Institutions, Moradabad

ATTENDANCE SHEET

Session: 2019-20 | Class Test I / II / III

Date: 22/10/19 | Shift: 1st | Room No: B-321

Year: 1st | Semester: 1st | Section/Branch: B/CSE

Subject Name: Chemistry | Subject Code: KAS-102

S. No	Roll No.	Name of Student	Branch	Signature
1.	1	Harshit Saxena	CS	[illegible]
2.	3	Himanshu	CS	Himanshu
3.	4	Isha chaudhary	CSE	Isha
4.	6	Jatin	CS	Jatin
5.	7	Jayprakash	CS	Jayprakash
6.	8	Kashish	CS	Kashish
7.	9	Keshav Kr. Mishra	CS	K.K. Mishra
8.	10	Khyati Shankhwar	CS	Khyati
9.	11	Kishan Kumar	CS	Kishan
10.	12	Kratika	CS	Kratika
11.	13	Kunal Verma	CS	[illegible]
12.	14	Lakshya Duggal	CS	[illegible]
13.	15	Lakshya Pratap Singh	CS	Lakshya
14.	16	Maaz Khan	CS	Maaz
15.	17	madhav	CS	madhav
16.	18	Manan	CS	Manan
17.	19.	Mansi Varshney	CS	Mansi
18.	20	Manu Verma	CS	[illegible]
19.	21	Mayank Pratap Singh	CS	[illegible]
20.	22	Mitali Singh	CS	Mitali
21.	23	MOHAMMAD Anas Ansari	CS	Anas Ansari
22.	24.	Mohammad faisal	CS	[illegible]
23.	25.	mohammad fazal	CS	[illegible]
24.	26	Mohammed Hammad Zaid	CS	Zaid
25.	2	Harshit Sharma	CS	Sharma
26.				
27.				
28.				
29.				
30				

Dr. Mahesh Saxena
HOD (ASH)
M.I.T., Moradabad

Total No. of Students allotted in Room: 25 | Students Absent: 00 | Students Present: 25

Invigilators: 1) Name _____ Sign: Shalinagar

2) Name _____ Sign: _____

Subject Teacher: Dr. Nitin Kr. Agrawal

MIT Group of Institutions, Moradabad

ATTENDANCE SHEET

Session: 2019-20

Class Test I / II / III ✓

Date: 22.10.19 Shift: I Room No: A-317

Year: I Semester: I Section/Branch: B/CS

Subject Name: Chemistry Subject Code: KAS-102

S. No	Roll No.	Name of Student	Branch	Signature
1.	44	Nidhi	CS	Nidhi
2.	45	Nikita Chaudhary	CS	Nikita
3.	39	Mohd Zaid Ullah Khan	CS	Zaid
4.	49	Palak Tripathi	CS	Palak
5.	50	Pankaj Kr. Pal	CS	Pankaj
6.	38	Mohd Shuaib	CS	Shuaib
7.	42	Nawaz Ariz	CS	Nawaz
8	51	Pankaj Kumar Singh	CS	Pankaj
9.	30	Mohan Krishna Gupta	CS	MKg
10.	52	Prachi	CS	Prachi
11.	27	M. Razi	CS.	MRa
12.	46	Nikunj Rastogi	C.S.	Nikunj
13.	34	Mohammad Bilal	CS	M. Bilal
14.	43	Neeraj Kumar	C.S	Neeraj
15.	37	Mohd. Sandeen	CS	Sado
16.	28	Mohd. Shavez Siddiqui	CS	Shavez
17.	36	mohd Mohsin	CS	mohsin
18.	35	Mohd Faris	C.S	[illegible]
19.	31	Mohd Adil	C.S	Adil
20.	32	Mohd. Armar ul Haq	CS	Armar
21.	29	Mohammad Uvais	CS	Mohd Uvais
22.	33	Mohd. Atif	CS	Atif
23.	41	Navjeet Singh Malhotra		
24.	48	Nishant Gupta	CS	Nishant
25.	47	Nipurn Sinha	CS	Nipurn
26.				
27.				
28.				
29.				
30.				

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

Total No. of Students allotted in Room: 25 Students Absent: NIL Students Present: 25

Invigilators: 1) Name Dr. Havendra Kumar Sign:

2) Name Sign:

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

1st Year 1st Semester - B (2019)

CT-2 Attendance, KAS-102

S.No.	Branch	Name of the Student	Father's Name	
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	P
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	P
3	CS	HIMANSHU	HEMPAL SINGH	P
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	P
5	CS	IQRA NAAZ	DOST MOHD	D
6	CS	JATIN	VIJAY KUMAR	P
7	CS	JAY PRAKASH	THAN SINGH	P
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	P
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	P
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	P
11	CS	KISHAN KUMAR	VINOD KUMAR	P
12	CS	KRATIKA	TRILOKI NATH	P
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	P
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	P
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	P
16	CS	MAAZ KHAN	S. KHAN	P
17	CS	MADHAV	LAKSHMI KANT	P
18	CS	MANAN MAHROTRA	MANU MEHROTRA	P
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	P
20	CS	MANU VERMA	SUNIL KUMAR VERMA	P
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	P
22	CS	MITALI SINGH	DALIP KUMAR	P
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	P
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	P
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	P
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	P
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	P
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	P
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	P
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	P
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	P
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	P
33	CS	MOHD. ATIF	NAFEES AHMED	P
34	CS	MOHD. BILAL	GULZAR HUSAIN	P
35	CS	MOHD. HARIS	QAMAR ISLAM	P
36	CS	MOHD. MOHSIN	YUSUF ALI	P
37	CS	MOHD. SAHDEEN	MOBEEN	P
38	CS	MOHD. SHUAIB	MOHD. KAMIL	P
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	P
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	D
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	P

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

42	CS	NAWAZ ARIF	ARIF ALI	P
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	P
44	CS	NIDHI	GAJRAJ SINGH	P
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	P
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	P
47	CS	NIPURN SINHA	ALOK SINHA	P
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	P
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	P
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	P
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	P
52	CS	PRACHI	JAIPRAKASH	P

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

(49)

CT-3

Subject Teacher: Nitin Kumar Agarwal

MIT Group of Institutions, Moradabad

ATTENDANCE SHEET

Session: 2019-20 | Class Test I / II / III

Date: 29-11-19 | Shift: I st | Room No: B-321

Year: I st | Semester: I st | Section/Branch: B/CS

Subject Name: CHEMISTRY | Subject Code: KAS-102

S. No	Roll No.	Name of Student	Branch	Signature
1.	01	Harshit Saxena	CS	HS
2.	03	Himanshu	CS	Himanshu
3.	02	Harshit Sharma	CS	[illegible]
4.	8	Kashish saxena	CS	Kashish
5.	09	keshav Kumar Mishra	CS	K.K. Mishra
6.	10	Knyati Shankhwar	CS	Knyati
7.	11	Kishan Kumar	CS	Kishan
8.	12	KRATIKA	CS	Pratik
9.	18	maran mehrotra	CS	Maran
10.	19	Mansi Varshney	CS	Mansi
11.	26	Mohammed Hammad Zaid	CS	Zaid
12.	25	Mohammad Fazal	CS	[illegible]
13.	24	Mohammad faisal	CS	Faisal
14.	23	Mohammad anas ansari	CS	Anas Ansari
15.	22	Mitali singh	CS	Mitali
16.	15	Lakshya Pratap Singh	CS	Lakshya
17.	16	Maaz Khan	CS	Maaz
18.	17	MADHAV	CS	madhav
19.	14	Lakshya Duggal	CS	[illegible]
20.	21	Mayank Pratap Singh	CS	Mayank
21.	20	Manu Verma	CS	[illegible]
22.	13	Kunal Verma	CS	Kunal
23.	07	Jayprakash	CS	Jay
24.		ISHA CHAUDHARY	ABSENT	
25.		JATIN	ABSENT	
26.				
27.				
28.				
29.				
30.				

Dr. Manish Saxena
HOD (ASH)
M.I.T. Moradabad

Total No. of Students allotted in Room: 25 | Students Absent: 02 | Students Present: 23

Invigilators: 1) Name MAROOF ALI Sign: [illegible]

2) Name _____ Sign: _____

Subject Teacher Dr. Nitin kr. Agarwal.

MIT Group of Institutions, Moradabad

ATTENDANCE SHEET

Session: 2019-20 | **Class Test I / II / III**

Date: 28-11-19 | **Shift:** I st | **Room No:** A-317

Year: I st | **Semester:** I st | **Section/Branch:** B/CSE

Subject Name: Chemistry | **Subject Code:** KAS-102

S. No	Roll No	Name of Student	Branch	Signature
1.	27	Mohd. Razi	CS	Razi
2.	28	Mohd - Shavez	CS	Shavez
3.	29	Mohammad Uvais	CS	Mohd Uvais
4.	34	Mohammad Bilal	CS	M.Bilal
5.	33	Mohd. Atif	CS	Atif
6.	32	Mohd. Armdn ul Haq	CS	Armdn
7.	31	Mohd Adil	CS	Adil
8.	30	Mohan Krishna Gupta	CS	MKG
9.	35	Mohd Haris	CS.	Hs
10.	36	mohd mohsin	CS	mohsin
11.	37	Mohd. Sahdeen	CS	[illegible]
12.	38	Mohd Shuaib	C.S.E	[illegible]
13.	39	Mohd Zaid Ullah Khan	C.S.E	Zai
14.	40	Muskan Singh	C.S.E	Singh
15.	41	Navjeet Singh Malhotra	CSE	Navjeet
16.	47	Nipurn Sinha	CSE	Nipurn
17.	46	Nikunj Rastogi	CSE	Nikunj
18.	45	Nikita Chaudhary	CSE	Nikita
19.	44	Nidhi	CSE	Singh
20.	43	Neeraj - Kumar	CSE	Neeraj
21.	42	Nawaz Ali	CSE	[illegible]
22.	52	Prachi	CSE	Prachi
23.	48	Nishant Gupta	CSE	Nishant
24.	49	Palak Tripathi	CSE	Palak
25.	50	Pankaj Kr. Pal	CSE	Pankaj
26.	51	Pankaj Kr. Singh	CSE	Pankaj
27.				
28				
29.				
30.				

Dr. Manish Saxena
HOD (ASH)
MIT, Moradabad

Total No. of Students allotted in Room: 26 **Students Absent:** 00 **Students Present:** 26

Invigilators: 1) Name Himanshu Agarwal **Sign:** H.Agg

2) Name _____ **Sign:** _____

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD
1st Year 1st Semester - B (2019)
CT-3 Attendance, KAS-102

S.No.	Branch	Name of the Student	Father's Name	
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	P
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	P
3	CS	HIMANSHU	HEMPAL SINGH	P
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	A
5	CS	IQRA NAAZ	DOST MOHD	D
6	CS	JATIN	VIJAY KUMAR	A
7	CS	JAY PRAKASH	THAN SINGH	P
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	P
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	P
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	P
11	CS	KISHAN KUMAR	VINOD KUMAR	P
12	CS	KRATIKA	TRILOKI NATH	P
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	P
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	P
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	P
16	CS	MAAZ KHAN	S. KHAN	P
17	CS	MADHAV	LAKSHMI KANT	P
18	CS	MANAN MAHROTRA	MANU MEHROTRA	P
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	P
20	CS	MANU VERMA	SUNIL KUMAR VERMA	P
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	P
22	CS	MITALI SINGH	DALIP KUMAR	P
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	P
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	P
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	P
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	P
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	P
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	P
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	P
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	P
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	P
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	P
33	CS	MOHD. ATIF	NAFEES AHMED	P
34	CS	MOHD. BILAL	GULZAR HUSAIN	P
35	CS	MOHD. HARIS	QAMAR ISLAM	P
36	CS	MOHD. MOHSIN	YUSUF ALI	P
37	CS	MOHD. SAHDEEN	MOBEEN	P
38	CS	MOHD. SHUAIB	MOHD. KAMIL	P
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	P
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	P
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	P
42	CS	NAWAZ ARIF	ARIF ALI	P

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

43	CS	NEERAJ KUMAR	RISHIPAL SINGH	P
44	CS	NIDHI	GAJRAJ SINGH	P
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	P
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	P
47	CS	NIPURN SINHA	ALOK SINHA	P
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	P
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	P
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	P
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	P
52	CS	PRACHI	JAIPRAKASH	P

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

Make UP CT

Subject Teacher: Dr. Nitin K. Agrawal

MIT Group of Institutions, Moradabad

ATTENDANCE SHEET

Session: 2019-20

Date: 02/12/19

Shift: .....

Class Test I / II / III ✓

Year: Ist

Semester: Ist

Room No: A-313

Subject Name: Chemistry

Section/Branch: A, B, C / CS

Subject Code: KAS-102

S. No	Roll No.	Name of Student	Branch	Signature
1.	9	Abhishek Rana	CS	Abhishek
2.	28	M. Shaver Siddiqui	CS	Shaver
3.	5	Iqra Naaz	CS	Iqra
4.	35	Mohd Haris	CS	Haris
5.	36	mohd mohsin	CS	mohsin
6.	19	Rishabh Pal	CS	Rishabh
7.	25	Rohil Saifi	CS	Rohil
8.	14	Rahat Ali	CS	Rahat Ali
9.	36	Shivkant tyagi	CS	Shivkant tyagi
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Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

Total No. of Students allotted in Room: 09 Students Absent: Nil Students Present: 09

Invigilators: 1) Name Dr. Nitin K. Agrawal Sign:

2) Name Dr. Harendra Kumar Sign:

In Pursuit of Excellence	List of Students having short attendance	SESSION-2019-2020
		SEM- I[st] SUBJECT CODE- KAS-102 SECTION - B

Based on CT-1

S. No.	Name
1.	IQRA NAAZ
2.	JAY PRAKASH
3.	MAAZ KHAN
4.	MADHAV
5.	MOHAMMAD ANAS ANSARI
6.	MOHAMMAD FAZAL
7.	MOHAMMAD SHAVEZ SIDDIQUI
8.	MOHAMMAD UVAIS
9.	MOHD. ADIL
10.	MOHD. HARIS
11.	MOHD. MOHSIN
12.	MOHD. SHUAIB
13.	MUSKAN SINGH
14.	NAWAZ ARIF

Dr. Manish Saxena
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In Pursuit of Excellence	List of Students having short attendance	SESSION-2019-2020
		SEM- I[st] SUBJECT CODE- KAS-102 SECTION - B

Based on CT-2

S. No.	Name
1.	IQRA NAAZ
2.	MAAZ KHAN
3.	MOHAMMAD FAZAL
4.	MOHAMMAD UVAIS
5.	MOHD. BILAL
6.	MOHD. HARIS
7.	MOHD. MOHSIN
8.	MUSKAN SINGH
9.	NIPURN SINHA

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

1st Year 1st Semester - B (2019)

CT-1Marks Chemistry (KAS-102)

S.No.	Br.	Name of the Student	Father's Name	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Total
			CO →	CO1	CO1	CO1	CO1	CO2	CO2	CO2	
			Marks →	1	2	3	3	1	2	3	15
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	1	1.5	1.5	2	0	1		7
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	1	1.5	3	2.5	1	2	2	13
3	CS	HIMANSHU	HEMPAL SINGH	0	0.5	2	0.5		1		4
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	1	2	2	3	0.5	2	2.5	13
5	CS	IQRA NAAZ	DOST MOHD	D	E	B	A	R	R	E	D
6	CS	JATIN	VIJAY KUMAR	1	1.5	1.5	2	1	2	2	11
7	CS	JAY PRAKASH	THAN SINGH	0	0	2.5	0	0	1.5	0	4
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	1	1.5	3	2.5		1	1	10
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	1	2	3	1.5	0.5	1.5	0.5	10
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	1	2	3	2.5	0	2	2	12.5
11	CS	KISHAN KUMAR	VINOD KUMAR	1	2	2	2	1	1.5	2.5	12
12	CS	KRATIKA	TRILOKI NATH	1	2	3	3	1	1.5	2.5	14
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	0	1.5	1	1.5	0	2	1	7
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	1	2	3	3	1	2	2	14
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	1	1.5	3	2	1	1.5	2	12
16	CS	MAAZ KHAN	S. KHAN	1	2	2.5	1		0.5	0	7
17	CS	MADHAV	LAKSHMI KANT	D	E	B	A	R	R	E	D
18	CS	MANAN MAHROTRA	MANU MEHROTRA	1	2	3	1.5		1.5	1	10
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	1	1	2.5	0.5	0	1	0	6
20	CS	MANU VERMA	SUNIL KUMAR VERMA	1	2	3	2.5		1.5	2.5	12.5
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	1	1	3	1.5	1	1	0.5	9
22	CS	MITALI SINGH	DALIP KUMAR	1	2	2.5	1	1	1.5		9
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	D	E	B	A	R	R	E	D
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	0	1.5	3	0.5	0	2	1	8
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	0	1.5	1	1.5	0	2	2	8
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	1	1.5	2.5	2	0	1	2	10
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	0	0.5	1.5	0		1	0	3

Dr. Manish Saxena
HOD (ASH)

28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	D	E	B	A	R	R	E	D
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	D	E	B	A	R	R	E	D
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	1	2	3	2	0.5	2	3	13.5
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	D	E	B	A	R	R	E	D
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	1	2	1.5	1.5	0	0.5	1	7.5
33	CS	MOHD. ATIF	NAFEES AHMED	1	2	3	2		1.5	1.5	11
34	CS	MOHD. BILAL	GULZAR HUSAIN	1	2	3	2	0.5	2	1.5	12
35	CS	MOHD. HARIS	QAMAR ISLAM	D	E	B	A	R	R	E	D
36	CS	MOHD. MOHSIN	YUSUF ALI	D	E	B	A	R	R	E	D
37	CS	MOHD. SAHDEEN	MOBEEN	1	2	3	2	0	1.5	1	10.5
38	CS	MOHD. SHUAIB	MOHD. KAMIL	0.5	1.5	1.5	1.5		1	0	6
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	1	2	3	2.5	0	2	2.5	13
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	D	E	B	A	R	R	E	D
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	0	1.5	2.5	2.5	0	2	2.5	11
42	CS	NAWAZ ARIF	ARIF ALI	D	E	B	A	R	R	E	D
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	1	1.5	3	2.5	0	2	2.5	12.5
44	CS	NIDHI	GAJRAJ SINGH	0.5	2	3	1.5	0	1.5	0.5	9
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	1	2	3	3	0	2	1	12
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	0.5	1	3	1	0	2	0.5	8
47	CS	NIPURN SINHA	ALOK SINHA	1	1.5	2.5	2.5		2	0.5	10
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	0.5	1	1	0	0	0.5	0	3
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	1	2	3	2.5	1	2	1	12.5
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	1	1.5	3	3	1	2	1.5	13
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	1	1.5	3	2.5	1	2	1	12
52	CS	PRACHI	JAIPRAKASH	0.5	1	3	0.5	0	2	1	8

Dr. Manish Saxena
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M.I.T., Moradabad

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

1st Year 1st Semester - B (2019)

CT-2 Marks Chemistry (KAS-102)

S.No.	Br.	Name of the Student	Father's Name	Q1	Q2	Q3	Q4	Q5	Q6	Total
			CO →	CO4	CO3	CO3	CO3	CO3	CO4	
			Marks →	2	2	2	3	3	3	15
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	1	1.5	1	2	2	1.5	9
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	2	1.5	1	3	2	1.5	11
3	CS	HIMANSHU	HEMPAL SINGH	0	1	1	1.5	1	2.5	7
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	2	2	1	3	3	3	14
5	CS	IQRA NAAZ	DOST MOHD	D	E	B	A	RR	E	D
6	CS	JATIN	VIJAY KUMAR	0.5	2	1	2	1.5	3	10
7	CS	JAY PRAKASH	THAN SINGH			1	0.5	2	2.5	6
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	1	1	1	2.5	1.5	2	9
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	1	1.5	1	2.5	2	3	11
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	1	2	0.5	2.5	2.5	2	10.5
11	CS	KISHAN KUMAR	VINOD KUMAR	1.5	1	1	3	0.5	3	10
12	CS	KRATIKA	TRILOKI NATH	2	2	1	3	3	3	14
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA		0	1	2	2	2	7
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	2	2	1	3	3	3	14
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	2	2	1	3	2	2	12
16	CS	MAAZ KHAN	S. KHAN	2	0	1	2	2	3	10
17	CS	MADHAV	LAKSHMI KANT	1	1	1	2	2	3	10
18	CS	MANAN MAHROTRA	MANU MEHROTRA	2	2	2	2	2	1	11
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	2	1.5	2	2.5	3	3	14
20	CS	MANU VERMA	SUNIL KUMAR VERMA	2	2	1	3	1.5	3	12.5
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	2	1.5	1	2	0.5	3	10
22	CS	MITALI SINGH	DALIP KUMAR	1	2	1	3	3	3	13
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	0	0.5	1	2.5	2	3	9
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	1.5	1.5	1	0.5	0	2.5	7
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	2	2	1	3	2.5	2.5	13
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	2	2	1	3	2	3	13
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	0.5	2	0	2.5	3	0	8
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	0	0	0	0		0	0

Dr. Manish Saxena
HOD (ASH)

29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	1	1.5	1	2.5	3	2	11
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	2	2	1	3	3	2.5	13.5
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI		1.5	1	1.5	2.5	1.5	8
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	1	1	1	1	1.5	0.5	6
33	CS	MOHD. ATIF	NAFEES AHMED	0	1.5	1	1	2	1.5	7
34	CS	MOHD. BILAL	GULZAR HUSAIN	1.5	2	1	2.5	2	3	12
35	CS	MOHD. HARIS	QAMAR ISLAM		1.5	0	0.5	1	0	3
36	CS	MOHD. MOHSIN	YUSUF ALI	0	0.5	0.5	0.5	0		1.5
37	CS	MOHD. SAHDEEN	MOBEEN	1.5	1	1	2	2	3	10.5
38	CS	MOHD. SHUAIB	MOHD. KAMIL	0	1.5	0.5	2.5	1.5	2	8
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	2	2	1	3	2	3	13
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	D	E	B	A	RR	E	D
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	0	1	1	2	2	0	6
42	CS	NAWAZ ARIF	ARIF ALI	2	2	1	3	3	3	14
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	1.5	0	1	2.5	1.5	3	9.5
44	CS	NIDHI	GAJRAJ SINGH	1.5	0	0.5	1.5	2.5	2	8
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	1	1	0.5	2.5	2	3	10
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	1	0	1	3	2.5	3	10.5
47	CS	NIPURN SINHA	ALOK SINHA	2	0.5	1	2.5	1	0	7
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	0	1	0.5	3	2.5	0	7
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	2	2	1	3	3	2.5	13.5
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	2	2	1	3	3	3	14
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	1	2	1	3	2	3	12
52	CS	PRACHI	JAIPRAKASH	1.5	0	1	3	2.5	1	9

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

1st Year 1st Semester - B (2019)

CT-3Marks Chemistry (KAS-102)

S.No.	Br.	Name of the Student	Father's Name	Q1	Q2	Q3	Q4	Q5	Q6	Total
			CO →	CO4	CO4	CO5	CO4	CO5	CO5	
			Marks →	2	2	2	3	3	3	15
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	0	0	0	0.5	1.5	0	2
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	0	0.5	1.5	2.5	1		5.5
3	CS	HIMANSHU	HEMPAL SINGH	0	0	0	0		1	1
4	CS	ISHA CHAUDHARY	PANKAJ MALIK							A
5	CS	IQRA NAAZ	DOST MOHD							D
6	CS	JATIN	VIJAY KUMAR							A
7	CS	JAY PRAKASH	THAN SINGH	0	0	0	0	0	0	0
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	1.5	0	1.5	2.5	0.5		6
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	1.5	1		2.5	0	2	7
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	1.5	1	0.5	2	0	0.5	5.5
11	CS	KISHAN KUMAR	VINOD KUMAR	1	2	1	2		0.5	6.5
12	CS	KRATIKA	TRILOKI NATH	2	1	2	3	0.5	0.5	9
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	1	0	1		0	0.5	2.5
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	1.5	2	2	1.5	2.5	3	12.5
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	1	1	0.5	2	0.5	1.5	6.5
16	CS	MAAZ KHAN	S. KHAN	2	2	0.5	2	1	1.5	9
17	CS	MADHAV	LAKSHMI KANT	2	2	1.5	2.5	3	3	14
18	CS	MANAN MAHROTRA	MANU MEHROTRA	2	2		1	0	1	6
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	0	2	0.5	2	1	0.5	6
20	CS	MANU VERMA	SUNIL KUMAR VERMA	1.5	2	1	3	2	2.5	12
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	1	2		0		0.5	3.5
22	CS	MITALI SINGH	DALIP KUMAR			0	0.5	0.5	0.5	1.5
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	0	2	1.5		0.5		4
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	0	2	0.5	2.5	0	0.5	5.5
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	2	2	1	2.5	1.5	2	11
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	0		1	1.5	1	2	5.5
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	0	0.5		1			1.5
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	1	0.5		1		0.5	3

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

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29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	1	2	2	2.5	3	2.5	13
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	2	2	1.5	3	2.5	2.5	13.5
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	0	0.5	0	1.5			2
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	2	1	2	2.5	1	2	10.5
33	CS	MOHD. ATIF	NAFEES AHMED	0	0.5	0	1.5	0	1	3
34	CS	MOHD. BILAL	GULZAR HUSAIN	2	2	2	3	3	3	15
35	CS	MOHD. HARIS	QAMAR ISLAM	0	0		1			1
36	CS	MOHD. MOHSIN	YUSUF ALI	0	1	0	0.5	0		1.5
37	CS	MOHD. SAHDEEN	MOBEEN	0	1.5	0	1	0	2.5	5
38	CS	MOHD. SHUAIB	MOHD. KAMIL		0		2	0.5	2	4.5
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	2	2	0.5	3	0.5	0.5	8.5
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	1	1.5	1.5	3	1	2	10
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	1	2	1	2	1	1	8
42	CS	NAWAZ ARIF	ARIF ALI	0	1	1.5	2.5	2	3	10
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	0	1.5	0.5	2.5	1	2.5	8
44	CS	NIDHI	GAJRAJ SINGH	1	1	0	2	0.5	1.5	6
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	0	0	1	2.5	0	1	4.5
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI		1.5	0	1.5	3	2.5	8.5
47	CS	NIPURN SINHA	ALOK SINHA	0	0.5		2		1	3.5
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	0	0	0	0	0	1	1
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	1.5	0.5	1	1	0.5	0.5	5
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	0	0	1	2		0.5	3.5
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	0	1.5	1	2	0.5	1	6
52	CS	PRACHI	JAIPRAKASH	0	0.5	0	1.5	1.5	2	5.5

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

1st Year 1st Semester - B (2019)

MAKE UP CT-3 Marks Chemistry (KAS-102)

S.No.	Br.	Name of the Student	Father's Name	Q1	Q2	Q3	Q4	Q5	Q6	Total
				CO4	CO4	CO5	CO4	CO4	CO5	
				2	2	2	3	3	3	15
5	CS	IQRA NAAZ	DOST MOHD	1.5	1.5	1.5	2.5	2.5	2.5	12
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	1.5	1.5	1.5	2.5	2	0	9
35	CS	MOHD. HARIS	QAMAR ISLAM	1.5	1.5	1.5	2.5	3	0	10
36	CS	MOHD. MOHSIN	YUSUF ALI	1.5	1.5	1.5	2.5	2.5	1	10.5

Dr. Mukesh Saxena
HOD (ASH)
M.I.T. Moradabad

In Pursuit of Excellence	**List of Slow Learner Students** (Action taken for Improvement)	SESSION-2019-2020 SEM- I SUBJECT-KAS 102 SUBJECT NAME: CHEMISTRY SECTION : B

Based on CT-1

S. No.	Name	Marks
1.	HIMANSHU	4
2.	IQRA NAAZ	D
3.	JAY PRAKASH	2
4.	MADHAV	D
5.	MOHAMMAD ANAS ANSARI	D
6.	MOHAMMAD RAZI	3
7.	MOHAMMAD SHAVEZ SIDDIQUI	D
8.	MOHAMMAD UVAIS	D
9.	MOHD. ADIL	D
10.	MOHD. HARIS	D
11.	MOHD. MOHSIN	D
12.	MOHD. SHUAIB	5.5
13.	MUSKAN SINGH	D
14.	NAWAZ ARIF	D
15.	NISHANT GUPTA	2.5

1. Students were asked to prepare and solve CT paper again.
2. Students were provided with important questions and asked to prepare them.
3. Students were suggested to be regular and more attentive in class.
4. Extra classes were taken.

Dr. [illegible] Saxena
HOD (ASH)
M.I.T., Moradabad

In Pursuit of Excellence	**List of Slow Learner Students** (Action taken for Improvement)	SESSION-2019-2020 SEM- I SUBJECT-KAS 102 SUBJECT NAME: CHEMISTRY SECTION : B

Based on CT-2

S.No.	Name	Marks
1.	IQRA NAAZ	D
2.	MOHAMMAD SHAVEZ SIDDIQUI	0
3.	MOHD. HARIS	3
4.	MOHD. MOHSIN	1.5
5.	MUSKAN SINGH	D

1. Students were asked to prepare and solve CT paper again.
2. Students were provided with important questions and asked to prepare them.
3. Students were suggested to be regular and more attentive in class.
4. Extra classes were taken.

Dr. [illegible] Saxena
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In Pursuit of Excellence	**List of Advanced Learner Students** (Action taken for Improvement)	SESSION-2019-2020
		SEM- I SUBJECT- KAS 102 SUBJECT NAME: CHEMISTRY SECTION : B

Based on CT-1

Sr. No.	Name	Marks
1.	KRATIKA	14
2.	LAKSHYA DUGGAL	14
3.	MOHAN KRISHNA GUPTA	13.5

1. Encouraged & motivate the students to refer higher level books and solve extra questions of high standard.
2. They were asked to prepare/ practice last five years university question paper.
3. They were advised the refer books of different authors.
4. Students were asked to prepare important topics and explain in class.

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In Pursuit of Excellence	**List of Advanced Learner Students** (Action taken for improvement)	SESSION-2019-2020
		SEM- I SUBJECT-KAS 102 SUBJECT NAME: CHEMISTRY SECTION : B

Based on CT-2

Sr. No.	Name	Marks
1.	ISHA CHAUDHARY	14
2.	KRATIKA	14
3.	LAKSHYA DUGGAL	14
4.	MANSI VARSHNEY	14
5.	MITALI SINGH	13
6.	MOHAMMAD FAZAL	13
7.	MOHAMMED HAMMAD ZAID	13
8.	MOHAN KRISHNA GUPTA	13.5
9.	MOHD. ZAID ULLAH KHAN	13
10.	NAWAZ ARIF	14
11.	PALAK TRIPATHI	13.5
12.	PANKAJ KUMAR PAL	14

1. Encouraged & motivate the students to refer higher level books and solve extra questions of high standard.
2. They were asked to prepare/ practice last five years university question paper.
3. They were advised the refer books of different authors.
4. Students were asked to prepare important topics and explain in class.

Dr. M[illegible]sh Saxena
H[illegible] (ASH)
M.I.T., Moradabad

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

STUDENT INTERACTION TIMINGS

(Session – 2019–20)

DAY	TIME
Wednesday	3.00 -5.00 PM
Friday	3.00 -5.00 PM
Saturday	3.00 -5.00 PM

Dr. [illegible]h Saxena
H[illegible] (ASH)
M.I.T. Moradabad

Printed Pages: 02
Paper Id: 199101

Sub Code: KAS102
Roll No. | | | | | | | | | | |

B TECH
(SEM I) THEORY EXAMINATION 2018-19
CHEMISTRY

Time: 3 Hours *Total Marks: 100*

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 10 = 20

a). Which of the following molecules will show rotational spectrum: H_2, HCl, CH_4, CH_3Cl, CH_2Cl_2, H_2O and SF_6?

b). What is meant by the term polarizability in Raman spectra?

c). Explain why the value of GCV is greater than NCV.

d). Why does magnesium bicarbonate require double amount of lime for softening?

e) . Write the monomer of a) Neoprene b) Terylene.

f). Why adry ether solvent important for the preparation of Grignard reagent?

g) Comment on the use of aluminum in place of Zinc for Cathodic protection of iron from rusting.

h) Calculate the cell potential at 298 k for the reaction:
$Al^{3+} + Fe \rightarrow Al + Fe^{3+}$ E^0 cell= –1.62.
The concentration of Al^{3}+ and Fe $^{3+}$ are 1.2 and 2.5 M.

i) Write any two applications of Nanotechnology.

j). Arrange the following molecules /ions in order of their increasing bond length: N_2, N_2^-, N_2^{2-}.

SECTION B

2. Attempt any three of the following: 10 x 3 = 30

a) Discuss the structure, preparation, properties and applications of fullerenes?

b) Derive Nernst Equation. The voltage of the cell $Pb/PbSO_4/Na_2SO_4/Hg$ is 0.9647 V at 25°C the temperature is 1.74×10^{-4} VK^{-1}. Calculate the values of ΔG, ΔS and ΔH.

c) What is finger print region and functional group region in IR spectroscopy? Two isomers A and B of the molecular formula C_3H_6O gives IR absorption at 1650 cm^{-1} and 1710 cm^{-1} respectively. Assign structural formula to A and B isomers?

d) What is hardness of water? What do you mean by term permutit? Describe Zeolite or Permutit process for softening of hard water.

e) What are organometallic compounds? Explain various methods of preparation of Grignard reagent and also write reactions of Grignard reagent with HCHO, R_2NH, CO_2, CH_3CH_2OH and ester.

SECTION C

3. Attempt any one part of the following: 10 x 1 = 10

(a) What are liquid crystals? Distinguish between Nematic & Smectic liquid crystal and write the applications of liquid crystal?

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(b) Explain BMO and ABMO and differentiate between them. Draw molecular orbital diagram of NO^+. Calculate its bond order and predict its magnetic properties.

4. Attempt any one part of the following: 10 x 1 = 10

(a) State the selection rule for Raman spectroscopy. What technological advances have enabled the routine use of Raman spectroscopy? Which of the following spectroscopy (IR or Raman) would you use to measure the vibrational frequency of the following bonds:

i)The stretching frequency of ^{14}N-^{15}N

ii)The $C \equiv C$ Str in Ethyne, $(CH \equiv CH)$

iii)The C=O Str in acetone, CH_3COCH_3

iv)The Re-Re str in compound, $(CO)_5Re$-$Re(CO)_5$

(b) What is Beer-Lambert law in UV-Visible absorption spectroscopy? A compound having concentration 10^{-3}g/l resulted absorbance value 0.20 at λ max 510 nm using 1.0 cm cell. Calculate its absorptivity and molar absorptivity values. Molecular weight of compound is 400. Can ultra-violet spectral data be useful to distinguish the following compounds? Give reasons.

(i) Ethyl benzene and styrene.

(ii) CH_2=CH-CH_2-CH=CH_2 and CH_2=CH-CH=CH-CH_3.

5. Attempt any one part of the following: 10 x 1 = 10

(a) Define and explain the terms involved in phase rule. Draw a neat labeled phase diagram of water system and c areas and calculate degree of freedom of areas and curves in it. What is the significance of the triple point and metastable curve in the system?

(b) Describe the mechanism of electrochemical or wet corrosion with help of reactions? Explain the cathodic protection method of prevention of corrosion.

6. Attempt any one part of the following: 10 x 1 = 10

(a) Explain reverse osmosis with its advantages. A water sample on analysis gives the following data: Ca^{2+} =20 ppm, Mg^{2+}=25 ppm, CO_2 = 30 ppm, HCO_3^- =150 ppm, K^+ = 10 ppm. Calculate the lime (87% pure) and soda (91% pure) required to soften 10^6 liter of sample water.

(b) Describe proximate analysis of fuels. A coal sample has the following composition by weight: C=90%, O=3%, S=0.5%, N=0.5% and Ash=2.5%. Net calorific value of the coal was found to be 8,490.5 kcal/kg. Calculate the percentage of hydrogen and Gross calorific value.

7. Attempt any one part of the following: 10 x 1 = 10

(a) Write a note on (i) Polymer blends (ii) Polymer composites

(b) Differentiate between elastomers and fibers? Give the preparation, properties and uses of Buna-S, Buna-N and Neoprene.

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Extra Questions Sheet

Q1 What are the properties of a good fuel? Define High and low calorific values. A 0.90g sample of a solid fuel was completely combusted in the oxygen using bomb calorimeter. The rise in temperature of water in calorimeter was 3.8^0C. Calculate the high calorific value of the fuel. If water taken in calorimeter is 4000 gm. and water equivalent of calorimeter is 385 gm. also calculate the low calorific value. Given % of H in fuel =1and latent heat of steam=587cal/gm

Q2 A sample of hard water contains 15 gm of $CaCO_3$ per litre, 20 ml of this required 25 ml EDTA solution while 100 ml of the sample water required 18 ml EDTA. The sample water after boiling required 12 ml. EDTA solution. Calculate the temporary hardness of the given sample in ppm.

Q3 100 ml of a sample of hard water neutralizes exactly 12 ml of 0.12 NH_4Cl using methyl orange as indicator. What kind of hardness is present? Express the same in terms of an equivalent of $CaCO_3$?

Q4 20 ml. of a water sample was treated with excess of 10% KI solution and then titrated against N/100 hypo solution using starch as indicator . 2.5 ml. of hypo was used for starch end point. Calculate the amont of chlorine in water.

Q5 What do you understand by extrinsic & interinsic semi conductors? Explain conduction in p type & n type semiconductors.

Q6 What is M.O. theory ? Whith the help of M.O. theory, Calculate bond order & megnetic character of following:

(a) O_2 (b) O_2^+ (c) O_2^{--} (d) He^{+2} (e) N_2 (f) F_2 (g) CO

(h) NO (i) NO^+ (J) NO^- (K) HF (I) CN^-

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Question Bank (Important Questions) (KAS-102) Chemistry

Q1. Explain Molecular orbital theory in case of metals and on its basis difference between conductors, semiconductors and insulators.

Q2. Draw the molecular orbital diagram of NO^+, N_2, N_2^+, O_2 and also calculate bond order & magnetic behaviour.

Q.3. Discuss the structure, Preparation, Properties and applications of fullerenes.

Q.4. What are liquid crystals? Distinguish between Nematic & semectic liquid crystals and write the applications of liquid crystal.

Q.5. What is crystal imperfection? Explain the one dimensional imperfection in solid.

Q.6. What is finger print region and functional group region in IR spectroscopy? Two isomers A and B of the molecular formula C_3H_6O gives IR absorption at 1650 cm^{-1} and 1710 cm^{-1} respectively. Assign structural formula to A and B isomers.

Q.7. Why is TMS is used as a standard reference in NMR spectroscopy?

Q.8. Define the term chromophore and Auxochrome in UV spectroscopy. An organic compound having molecular formula C_7H_6O shows absorption peaks at 3010, 2700, 1600, 1580, 1520, 1480, and 1270 cm^{-1} in its IR spectrum. Suggest its structure.

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Q.9. Define phase rule. Apply Phase rule to water system. what is the significance of the triple Point and metastable curve in the system.

Q.10. Describe the mechanism of electrochemical or wet corrosion with the help of reactions? Explain the cathodic Protection method of Prevention of corrosion.

Q.11. Give the construction and working of Galvanic cell.

Q.12. Explain the working & reactions involved in lead-storage battery.

Q.13 calculate the cell Potential at 298K for the reaction.

$Al^{+3} + Fe \rightarrow Al + Fe^{+3}$ $E^{0}_{cell} = -1.62$

The concentration of Al^{+3} and Fe^{+3} are 1.2 and 2.5 M.

Q.14 Explain reverse osmosis.

Q.15. what is hardness of water? what do you mean by term Permutit? Describe zealite or permutit process for softening of hard water.

Q.16. what is the basic Principle of Lime-soda Process. A water sample contains 40.5 mg/L $Ca(HCO_3)_2$, 13.6 mg/L $CaSO_4$, 46.5 mg/L $Mg(HCO_3)_2$, 27.6 mg/L $MgSO_4$, 22.45 mg/L $CaCl_2$, 19.0 mg/L $MgCl_2$ and 4.8 mg/L NaCl. calculate the temporary hardness in given water sample.

Q.17. Explain Proximate analysis of coal.

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Q.18. A sample of coal was found to have the following Percentage composition:

C = 75%, H = 5.2%, O = 12.1%, N = 3.2% and ash = 4.5%. calculate the minimum amount of air is required for complete combustion of 1kg of coal sample

Q.19. What are Grignard reagents? How are they prepared? Give its applications.

Q.20. Give preparation, properties and applications of following polymers:

(i) Buna-S
(ii) Buna-N
(iii) Neoprene
(iv) Nylon-6
(v) Nylon 6,6
(vi) Terylene

Q.21. Write a note on:

(i) Conducting polymer
(ii) Biodegradable polymer
(iii) Polymer blends.

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MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

1st Year 1st Semester - B (2019)

Sessional Marks, Chemistry, KAS-102

S.No.	Br.	Name of the Student	Father's Name	CT1	CT2	CT3	Makeup	Best of 2	AT (10)	TA (10)	Total 50
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	7	9	2		16	10	9	35
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	13	11	5.5		24	10	10	44
3	CS	HIMANSHU	HEMPAL SINGH	4	7	1		11	10	9	30
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	13	14	A		27	10	10	47
5	CS	IQRA NAAZ	DOST MOHD	D	D	D	12	12	9	9	30
6	CS	JATIN	VIJAY KUMAR	11	10	A		21	10	10	41
7	CS	JAY PRAKASH	THAN SINGH	4	6	0		10	10	10	30
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	10	9	6		19	10	9	38
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	10	11	7		21	10	10	41
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	12.5	10.5	5.5		23	10	10	43
11	CS	KISHAN KUMAR	VINOD KUMAR	12	10	6.5		22	10	10	42
12	CS	KRATIKA	TRILOKI NATH	14	14	9		28	10	10	48
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	7	7	2.5		14	9	8	31
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	14	14	12.5		28	10	10	48
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	12	12	6.5		24	10	10	44
16	CS	MAAZ KHAN	S. KHAN	7	10	9		19	9	9	37
17	CS	MADHAV	LAKSHMI KANT	D	10	14		24	10	10	44
18	CS	MANAN MAHROTRA	MANU MEHROTRA	10	11	6		21	10	10	41
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	6	14	6		20	10	10	40
20	CS	MANU VERMA	SUNIL KUMAR VERMA	12.5	12.5	12		25	10	10	45
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	9	10	3.5		19	10	9	38
22	CS	MITALI SINGH	DALIP KUMAR	9	13	1.5		22	10	10	42
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	D	9	4		13	10	8	31
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	8	7	5.5		15	10	9	34
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	8	13	11		24	9	10	43
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	10	13	5.5		23	10	10	43
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	3	8	1.5		11	9	10	30
28	CS	MOHAMMAD SHAVEZ SIDDIQU	SHAMEEM AHMAD SIDDIQUI	D	0	3	9	12	9	9	30
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	D	11	13		24	9	10	43
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	13.5	13.5	13.5		27	10	10	47

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04/01/2020

31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	D	8	2		10	10	10	30
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	7.5	6	10.5		18	10	9	37
33	CS	MOHD. ATIF	NAFEES AHMED	11	7	3		18	10	9	37
34	CS	MOHD. BILAL	GULZAR HUSAIN	12	12	15		27	9	10	46
35	CS	MOHD. HARIS	QAMAR ISLAM	D	3	1	8	11	9	10	30
36	CS	MOHD. MOHSIN	YUSUF ALI	D	1.5	1.5	10.5	12	9	9	30
37	CS	MOHD. SAHDEEN	MOBEEN	10.5	10.5	5		21	10	10	41
38	CS	MOHD. SHUAIB	MOHD. KAMIL	6	8	4.5		14	10	8	32
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	13	13	8.5		26	10	10	46
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	D	D	10		10	10	10	30
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	11	6	8		19	9	9	37
42	CS	NAWAZ ARIF	ARIF ALI	D	14	10		24	10	10	44
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	12.5	9.5	8		22	10	10	42
44	CS	NIDHI	GAJRAJ SINGH	9	8	6		17	10	9	36
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	12	10	4.5		22	10	10	42
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	8	10.5	8.5		19	10	9	38
47	CS	NIPURN SINHA	ALOK SINHA	10	7	3.5		17	8	9	34
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	3	7	1		10	10	10	30
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	12.5	13.5	5		26	10	10	46
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	13	14	3.5		27	10	10	47
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	12	12	6		24	10	10	44
52	CS	PRACHI	JAIPRAKASH	8	9	5.5		17	10	9	36

04/01/2020

Name and Signature of Subject Teacher with date

Signature of HOD

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M.I.T., Moradabad

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

1st Year 1st Semester - B (2019)

Sessional Marks, Chemistry Practical, KAS-102P

S.No.	Br.	Name of the Student	Father's Name	AT (5)	Record (10)	Internal	Total (25)
1	CS	HARSHIT SAXENA	PRAMOD KUMAR SAXENA	5	9	7	21
2	CS	HARSHIT SHARMA	HEMENDRA PRASAD SHARMA	5	9	9	23
3	CS	HIMANSHU	HEMPAL SINGH	5	7	9	21
4	CS	ISHA CHAUDHARY	PANKAJ MALIK	4	10	10	24
5	CS	IQRA NAAZ	DOST MOHD	3	8	6	17
6	CS	JATIN	VIJAY KUMAR	5	8	10	23
7	CS	JAY PRAKASH	THAN SINGH	4	9	8	21
8	CS	KASHISH SAXENA	VINAY KUMAR SAXENA	5	10	7	22
9	CS	KESHAV KUMAR MISHRA	ARVIND KUMAR MISHRA	5	9	9	23
10	CS	KHAYATI SHANKHWAR	RAJKUMAR SHANKHWAR	5	10	8	23
11	CS	KISHAN KUMAR	VINOD KUMAR	4	10	9	23
12	CS	KRATIKA	TRILOKI NATH	5	10	9	24
13	CS	KUNAL VERMA	SANJEEV KUMAR VERMA	4	8	9	21
14	CS	LAKSHYA DUGGAL	RAKESH DUGGAL	5	9	10	24
15	CS	LAKSHYA PRATAP SINGH	RAJKUMAR CHAUHAN	4	9	10	23
16	CS	MAAZ KHAN	S. KHAN	5	8	9	22
17	CS	MADHAV	LAKSHMI KANT	5	9	9	23
18	CS	MANAN MAHROTRA	MANU MEHROTRA	5	10	8	23
19	CS	MANSI VARSHNEY	GYANESH KUMAR VARSHNEY	5	10	7	22
20	CS	MANU VERMA	SUNIL KUMAR VERMA	5	8	10	23
21	CS	MAYANK PRATAP SINGH	RAJEEV KUMAR	5	9	8	22
22	CS	MITALI SINGH	DALIP KUMAR	5	9	9	23
23	CS	MOHAMMAD ANAS ANSARI	MOHMMAD AKRAM	5	8	8	21
24	CS	MOHAMMAD FAISAL	NAZARUL HASAN	3	9	9	21
25	CS	MOHAMMAD FAZAL	MOHAMMAD ANIS	5	10	8	23
26	CS	MOHAMMED HAMMAD ZAID	MOHAMMED SHUAIB	5	10	8	23
27	CS	MOHAMMAD RAZI	MOHAMMAD ASHKAR	5	9	7	21
28	CS	MOHAMMAD SHAVEZ SIDDIQUI	SHAMEEM AHMAD SIDDIQUI	5	7	9	21
29	CS	MOHAMMAD UVAIS	SAKIR HUSAIN	4	10	9	23
30	CS	MOHAN KRISHNA GUPTA	SANJEEV GUPTA	5	9	10	24
31	CS	MOHD. ADIL	MOHD. SHAMSHER SAIFI	5	8	8	21
32	CS	MOHD. ARMAN UL HAQ	WAHAJUL HAQUE	4	9	9	22
33	CS	MOHD. ATIF	NAFEES AHMED	3	10	9	22
34	CS	MOHD. BILAL	GULZAR HUSAIN	4	10	10	24
35	CS	MOHD. HARIS	QAMAR ISLAM	5	9	7	21
36	CS	MOHD. MOHSIN	YUSUF ALI	5	8	8	21
37	CS	MOHD. SAHDEEN	MOBEEN	5	10	8	23
38	CS	MOHD. SHUAIB	MOHD. KAMIL	5	8	8	21
39	CS	MOHD. ZAID ULLAH KHAN	NADEEM AHMAD	5	9	10	24
40	CS	MUSKAN SINGH	LATE. SANJAY SINGH	4	8	9	21
41	CS	NAVJEET SINGH MALHOTRA	KULDEEP SINGH MALHOTRA	3	10	9	22

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42	CS	NAWAZ ARIF	ARIF ALI	5	9	9	23
43	CS	NEERAJ KUMAR	RISHIPAL SINGH	5	8	10	23
44	CS	NIDHI	GAJRAJ SINGH	5	10	7	22
45	CS	NIKITA CHAUDHARY	VINAY KUMAR	5	9	9	23
46	CS	NIKUNJ RASTOGI	SHYAM RASTOGI	5	10	7	22
47	CS	NIPURN SINHA	ALOK SINHA	4	10	10	24
48	CS	NISHANT GUPTA	MUNISH KUMAR GUPTA	5	9	7	21
49	CS	PALAK TRIPATHI	PANKAJ TRIPATHI	5	10	9	24
50	CS	PANKAJ KUMAR PAL	RAJENDRA SINGH	5	9	10	24
51	CS	PANKAJ KUMAR SINGH	MAHAVEER SINGH	3	10	10	23
52	CS	PRACHI	JAIPRAKASH	5	8	9	22

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डा0 ए0पी0जे0 अब्दुल कलाम प्राविधिक विश्वविद्यालय, उत्तर प्रदेश, लखनऊ

Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

(Formerly Uttar Pradesh Technical University)

Sessional Marks Examination (सैश्विक अंक)

Sessional Brief (सैश्विक संक्षिप्त)

Print (प्रिंट करें)

Institute Code & Name	:	MORADABAD INSTITUTE OF TECHNOLOGY,MORADABAD(082)
Course Code & Name	:	B.Tech
Branch Code & Name	:	Computer Science and Engineering
Semester	:	1
FacultyName	:	HARENDRA KUMAR
SubjectCode	:	KAS102
Marks Type	:	Theory Sessional
Is Finally Submitted to University	:	True (* will be **TRUE** after submitting to university by your college.)

Sessional Marks (सैश्विक अंक)

Sr.no. (क्रम संख्या)	Roll No. (अनुक्रमांक)	Name (नाम)	Obt.(CT) प्राप्त (CT)	Max.(CT) अधिकतम (CT)	Obt. TA (Assign./Att.)	Max. TA (Assign./Att.)	Obt. CT+TA	Max. CT+TA	Remark (टिप्पणी)
1	1900820100001	AAKASH KASHYAP	22	30	20	20	42	50	
2	1900820100002	ABDUL HANNAN	14	30	18	20	32	50	
3	1900820100003	ABDUL KAIF	17	30	19	20	36	50	
4	1900820100004	ABDUL MUTTALIB	17	30	19	20	36	50	
5	1900820100005	ABDUL BASIT	20	30	20	20	40	50	
6	1900820100006	ABHIRAJ VARSHNEY	18	30	18	20	36	50	
7	1900820100007	ABHISHEK KUMAR	19	30	19	20	38	50	
8	1900820100008	ABHISHEK RANA	12	30	18	20	30	50	
9	1900820100009	ABHISHEK KUMAR YADAV	19	30	19	20	38	50	
10	1900820100010	ABHISHEK YADAV	14	30	17	20	31	50	
11	1900820100011	ADITYA AGARWAL	23	30	19	20	42	50	
12	1900820100012	AKASH GUPTA	18	30	19	20	37	50	
13	1900820100013	AKASH NAVEEN	18	30	18	20	36	50	
14	1900820100014	AKSHITA SARIN	14	30	18	20	32	50	
15	1900820100015	ALVIRA FAHEEM	12	30	18	20	30	50	
16	1900820100016	AMAN SAINI	17	30	19	20	36	50	
17	1900820100017	AMAN KUMAR	16	30	18	20	34	50	
18	1900820100018	AMAN KUMAR MAURYA	10	30	20	20	30	50	
19	1900820100019	ANANT TIWARI	16	30	19	20	35	50	
20	1900820100020	ANCHAL SINGH	15	30	18	20	33	50	
21	1900820100021	ANIL	18	30	19	20	37	50	
22	1900820100022	ANMOL SRIVASTAVA	13	30	17	20	30	50	
23	1900820100023	ANTRA MAHESHWARI	10	30	20	20	30	50	
24	1900820100024	ANU SHARMA	10	30	20	20	30	50	
25	1900820100025	ANUBHAV BHARDWAJ	14	30	16	20	30	50	
26	1900820100027	ARVIND MAURYA	16	30	19	20	35	50	
27	1900820100028	ARYABH PRAJAPATI	21	30	20	20	41	50	
28	1900820100029	ASHISH SINGH		30	0	20	0	50	Debarred
29	1900820100030	ASHUTOSH SHARMA	22	30	20	20	42	50	
30	1900820100031	AYUSH GUPTA	26	30	20	20	46	50	
31	1900820100032	BHOOPENDRA SINGH GOLA	19	30	19	20	38	50	
32	1900820100033	DEEKSHA GUPTA	27	30	20	20	47	50	
33	1900820100034	DEVANSH BHATNAGAR	17	30	18	20	35	50	
34	1900820100035	DEVANSH NATH TIWARI	15	30	19	20	34	50	
35	1900820100036	DEVENDRA SINGH	25	30	20	20	45	50	
36	1900820100037	DHAIRYA HANS	27	30	20	20	47	50	
37	1900820100038	DHRUV RASTOGI	25	30	20	20	45	50	
38	1900820100039	DIPENDRA	15	30	17	20	32	50	
39	1900820100040	DIVYANG BHATNAGAR	18	30	17	20	35	50	
40	1900820100041	DIVYANSH SHARMA	10	30	20	20	30	50	
41	1900820100042	DIVYANSHU GAHLOT	17	30	19	20	36	50	
42	1900820100043	FAIZ AYYUB	17	30	19	20	36	50	
43	1900820100044	FARAZ AKBAR	1	30	15	20	16	50	
44	1900820100045	GARIMA AGARWAL	27	30	20	20	47	50	
45	1900820100046	GARVIT RAJPUT	15	30	19	20	34	50	
46	1900820100047	GEETANJALI CHAUHAN	20	30	20	20	40	50	
47	1900820100048	HAMMAD ALI	10	30	20	20	30	50	
48	1900820100049	HARSH CHOUDHARY	17	30	19	20	36	50	
49	1900820100050	HARSH RUHELA	22	30	20	20	42	50	
50	1900820100051	HARSHIT SAXENA	16	30	19	20	35	50	
51	1900820100052	HARSHIT SHARMA	24	30	20	20	44	50	
52	1900820100053	HIMANSHU	11	30	19	20	30	50	
53	1900820100054	IQRA NAAZ	12	30	18	20	30	50	
54	1900820100055	ISHA CHAUDHARY	27	30	20	20	47	50	
55	1900820100056	JATIN	21	30	20	20	41	50	
56	1900820100057	JAY PRAKASH	10	30	20	20	30	50	
57	1900820100058	KASHISH SAXENA	19	30	19	20	38	50	
58	1900820100059	KESHAV KUMAR MISHRA	21	30	20	20	41	50	
59	1900820100060	KHYATI SHANKHWAR	23	30	20	20	43	50	
60	1900820100061	KISHAN KUMAR	22	30	20	20	42	50	
61	1900820100062	KRATIKA	28	30	20	20	48	50	
62	1900820100063	KUNAL VERMA	14	30	17	20	31	50	
63	1900820100064	LAKSHYA DUGGAL	28	30	20	20	48	50	
64	1900820100065	LAKSHYA PRATAP SINGH CHAUHAN	24	30	20	20	44	50	
65	1900820100066	MAAZ KHAN	19	30	18	20	37	50	
66	1900820100067	MADHAV	24	30	20	20	44	50	
67	1900820100068	MANAN MEHROTRA	21	30	20	20	41	50	
68	1900820100069	MANSI VARSHNEY	20	30	20	20	40	50	
69	1900820100070	MANU VERMA	25	30	20	20	45	50	
70	1900820100071	MAYANK PRATAP SINGH	19	30	19	20	38	50	
71	1900820100072	MITALI SINGH	22	30	20	20	42	50	
72	1900820100073	MOHAMMAD RAZI	11	30	19	20	30	50	
73	1900820100074	MOHAMMAD ANAS ANSARI	13	30	18	20	31	50	
74	1900820100075	MOHAMMAD BILAL	27	30	19	20	46	50	
75	1900820100076	MOHAMMAD FAISAL	15	30	19	20	34	50	

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76	1900820100077	MOHAMMAD FAZAL	24	30	19	20	43	50	
77	1900820100078	MOHAMMAD SHAVEZ SIDDIQUI	12	30	18	20	30	50	
78	1900820100079	MOHAMMAD UVAIS	24	30	19	20	43	50	
79	1900820100080	MOHAMMED HAMMAD ZAID	23	30	20	20	43	50	
80	1900820100081	MOHAN KRISHNA GUPTA	27	30	20	20	47	50	
81	1900820100082	MOHD ADIL	10	30	20	20	30	50	
82	1900820100083	MOHD ATIF	18	30	19	20	37	50	
83	1900820100084	MOHD MOHSIN	12	30	18	20	30	50	
84	1900820100085	MOHD SAHDEEN	21	30	20	20	41	50	
85	1900820100086	MOHD ARMANUL HAQ	18	30	19	20	37	50	
86	1900820100087	MOHD HARIS	11	30	19	20	30	50	
87	1900820100088	MOHD SHUAIB	14	30	18	20	32	50	
88	1900820100089	MOHD ZAID ULLAH KHAN	26	30	20	20	46	50	
89	1900820100090	MUSKAN SINGH	10	30	20	20	30	50	
90	1900820100091	NAVJEET SINGH MALHOTRA	19	30	18	20	37	50	
91	1900820100092	NAWAZ ARIF	24	30	20	20	44	50	
92	1900820100093	NEERAJ KUMAR	22	30	20	20	42	50	
93	1900820100094	NIDHI	17	30	19	20	36	50	
94	1900820100095	NIKITA CHAUDHARY	22	30	20	20	42	50	
95	1900820100096	NIKUNJ RASTOGi	19	30	19	20	38	50	
96	1900820100097	NIPURN SINHA	17	30	17	20	34	50	
97	1900820100098	NISHANT GUPTA	10	30	20	20	30	50	
98	1900820100099	PALAK TRIPATHI	26	30	20	20	46	50	
99	1900820100100	PANKAJ KUMAR PAL	27	30	20	20	47	50	
100	1900820100101	PANKAJ KUMAR SINGH	24	30	20	20	44	50	
101	1900820100102	PRACHI	17	30	19	20	36	50	
102	1900820100103	PRAKHAR ARORA	26	30	20	20	46	50	
103	1900820100104	PRAKRITI GAHLOT	10	30	20	20	30	50	
104	1900820100105	PRANAV GAHLAUT	14	30	17	20	31	50	
105	1900820100106	PRANJAL RATHORE	25	30	20	20	45	50	
106	1900820100107	PRATEEK KUMAR SHARMA	20	30	20	20	40	50	
107	1900820100108	PRERIT AGARWAL	22	30	19	20	41	50	
108	1900820100109	PRIYA VISHNOI	17	30	19	20	36	50	
109	1900820100110	PRIYANSHI VARSHNEY	14	30	18	20	32	50	
110	1900820100111	PRIYANSHU TYAGI	18	30	19	20	37	50	
111	1900820100112	PRIYANSHU SAXENA	30	30	19	20	49	50	
112	1900820100113	PULKIT SHARMA	22	30	19	20	41	50	
113	1900820100114	PUNEET SAINI	25	30	20	20	45	50	
114	1900820100115	PUNEET BHARDWAJ	19	30	19	20	38	50	
115	1900820100116	RAHAT ALI	11	30	19	20	30	50	
116	1900820100117	RAHUL DABRAL	17	30	19	20	36	50	
117	1900820100118	RAJUL BHATNAGAR	22	30	20	20	42	50	
118	1900820100119	RAMEEZ AL NAVED	17	30	19	20	36	50	
119	1900820100120	RISAB KUMAR	22	30	20	20	42	50	
120	1900820100121	RISHABH PAL	11	30	19	20	30	50	
121	1900820100122	RISHI TYAGI	23	30	20	20	43	50	
122	1900820100123	RISHITA VARSHNEY	24	30	20	20	44	50	
123	1900820100124	RITIK KUMAR	24	30	20	20	44	50	
124	1900820100125	RITIK SAINI	22	30	20	20	42	50	
125	1900820100126	RITISH KUMAR SINGH	19	30	19	20	38	50	
126	1900820100127	ROHIL SAIFI	12	30	18	20	30	50	
127	1900820100128	ROHIT KUMAR	10	30	20	20	30	50	
128	1900820100129	RUDRA SARASWAT	23	30	20	20	43	50	
129	1900820100130	SAMRIDDHI BHARDWAJ	22	30	20	20	42	50	
130	1900820100131	SARIM HUSSAIN	23	30	19	20	42	50	
131	1900820100132	SATYAM KUMAR	21	30	20	20	41	50	
132	1900820100133	SHAHNAWAZ KHAN	18	30	19	20	37	50	
133	1900820100134	SHAILI RAJPUT	16	30	19	20	35	50	
134	1900820100135	SHAURYA CHAUHAN	25	30	20	20	45	50	
135	1900820100136	SHIKHAR SHARMA	25	30	20	20	45	50	
136	1900820100137	SHIVAM KUMAR MAURYA	28	30	20	20	48	50	
137	1900820100138	SHIVANI	25	30	20	20	45	50	
138	1900820100139	SHIVANK CHAUDHARY	20	30	20	20	40	50	
139	1900820100140	SHIVKANT TYAGI	12	30	18	20	30	50	
140	1900820100141	SHOBHIT SAINI	22	30	20	20	42	50	
141	1900820100142	SHRUTI GUPTA	23	30	20	20	43	50	
142	1900820100143	SHUBHAM	25	30	18	20	43	50	
143	1900820100144	SHUBHAM CHAUHAN	21	30	20	20	41	50	
144	1900820100145	SHUBHAM SHARMA	10	30	20	20	30	50	
145	1900820100146	SHUBHNEET CHOUDHARY	24	30	20	20	44	50	
146	1900820100147	SIDDHANT KAUSHIK	24	30	20	20	44	50	
147	1900820100148	SIMRAN ARORA	27	30	20	20	47	50	
148	1900820100149	SNEHA SIKKA	22	30	20	20	42	50	
149	1900820100150	SRISHTI TYAGI	22	30	20	20	42	50	
150	1900820100151	SUDHANSHU DEVRAN	10	30	20	20	30	50	
151	1900820100153	TABISH ABSAR	14	30	18	20	32	50	

Director
Director's Signature
Moradabad Institute of Technology
Ram Ganga Vihar, Phase-2
Moradabad

Faculty Signature

Dr. Manish Saxena
HOD (ASH)
M.I.T., Moradabad

डा0 ए0पी0जे0 अब्दुल कलाम प्राविधिक विश्वविद्यालय, उत्तर प्रदेश, लखनऊ

Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

(Formerly Uttar Pradesh Technical University)

Sessional Marks Examination (सैश्विक अंक)

Sessional Brief (सैश्विक संक्षिप्त)

Print (प्रिंट करें)

Institute Code & Name	:	MORADABAD INSTITUTE OF TECHNOLOGY,MORADABAD(082)
Course Code & Name	:	B.Tech
Branch Code & Name	:	Computer Science and Engineering
Semester	:	1
FacultyName	:	DR. NITINKUMARAGRAWAL
SubjectCode	:	KAS102
Marks Type	:	Practical sessional
Is Finally Submitted to University	:	True (* will be **TRUE** after submitting to university by your college.)

Sessional Marks (सैश्विक अंक)

Sr.no. (क्रम संख्या)	Roll No. (अनुक्रमांक)	Name (नाम)	Obt.(CT) प्राप्त (CT)	Max.(CT) अधिकतम (CT)	Obt. TA (Assign./Att.)	Max. TA (Assign./Att.)	Obt. CT+TA	Max. CT+TA	Remark (टिप्पणी)
1	1900820100001	AAKASH KASHYAP		0	23	25	23	25	
2	1900820100002	ABDUL HANNAN		0	21	25	21	25	
3	1900820100003	ABDUL KAIF		0	21	25	21	25	
4	1900820100004	ABDUL MUTTALIB		0	21	25	21	25	
5	1900820100005	ABDUL BASIT		0	22	25	22	25	
6	1900820100006	ABHIRAJ VARSHNEY		0	22	25	22	25	
7	1900820100007	ABHISHEK KUMAR		0	22	25	22	25	
8	1900820100008	ABHISHEK RANA		0	21	25	21	25	
9	1900820100009	ABHISHEK KUMAR YADAV		0	21	25	21	25	
10	1900820100010	ABHISHEK YADAV		0	21	25	21	25	
11	1900820100011	ADITYA AGARWAL		0	23	25	23	25	
12	1900820100012	AKASH GUPTA		0	22	25	22	25	
13	1900820100013	AKASH NAVEEN		0	22	25	22	25	
14	1900820100014	AKSHITA SARIN		0	21	25	21	25	
15	1900820100015	ALVIRA FAHEEM		0	21	25	21	25	
16	1900820100016	AMAN SAINI		0	22	25	22	25	
17	1900820100017	AMAN KUMAR		0	21	25	21	25	
18	1900820100018	AMAN KUMAR MAURYA		0	21	25	21	25	
19	1900820100019	ANANT TIWARI		0	21	25	21	25	
20	1900820100020	ANCHAL SINGH		0	21	25	21	25	
21	1900820100021	ANIL		0	22	25	22	25	
22	1900820100022	ANMOL SRIVASTAVA		0	21	25	21	25	
23	1900820100023	ANTRA MAHESHWARI		0	21	25	21	25	
24	1900820100024	ANU SHARMA		0	21	25	21	25	
25	1900820100025	ANUBHAV BHARDWAJ		0	21	25	21	25	
26	1900820100027	ARVIND MAURYA		0	21	25	21	25	
27	1900820100028	ARYABH PRAJAPATI		0	23	25	23	25	
28	1900820100029	ASHISH SINGH		0	0	25	0	25	Debarred
29	1900820100030	ASHUTOSH SHARMA		0	23	25	23	25	
30	1900820100031	AYUSH GUPTA		0	23	25	23	25	
31	1900820100032	BHOOPENDRA SINGH GOLA		0	22	25	22	25	
32	1900820100033	DEEKSHA GUPTA		0	24	25	24	25	
33	1900820100034	DEVANSH BHATNAGAR		0	21	25	21	25	
34	1900820100035	DEVANSH NATH TIWARI		0	21	25	21	25	
35	1900820100036	DEVENDRA SINGH		0	23	25	23	25	
36	1900820100037	DHAIRYA HANS		0	24	25	24	25	
37	1900820100038	DHRUV RASTOGI		0	24	25	24	25	
38	1900820100039	DIPENDRA		0	21	25	21	25	
39	1900820100040	DIVYANG BHATNAGAR		0	21	25	21	25	
40	1900820100041	DIVYANSH SHARMA		0	21	25	21	25	
41	1900820100042	DIVYANSHU GAHLOT		0	22	25	22	25	
42	1900820100043	FAIZ AYYUB		0	22	25	22	25	
43	1900820100044	FARAZ AKBAR		0	17	25	17	25	
44	1900820100045	GARIMA AGARWAL		0	23	25	23	25	
45	1900820100046	GARVIT RAJPUT		0	21	25	21	25	
46	1900820100047	GEETANJALI CHAUHAN		0	22	25	22	25	
47	1900820100048	HAMMAD ALI		0	21	25	21	25	
48	1900820100049	HARSH CHOUDHARY		0	21	25	21	25	
49	1900820100050	HARSH RUHELA		0	23	25	23	25	
50	1900820100051	HARSHIT SAXENA		0	21	25	21	25	
51	1900820100052	HARSHIT SHARMA		0	23	25	23	25	
52	1900820100053	HIMANSHU		0	21	25	21	25	
53	1900820100054	IQRA NAAZ		0	17	25	17	25	
54	1900820100055	ISHA CHAUDHARY		0	24	25	24	25	
55	1900820100056	JATIN		0	21	25	21	25	
56	1900820100057	JAY PRAKASH		0	22	25	22	25	
57	1900820100058	KASHISH SAXENA		0	23	25	23	25	
58	1900820100059	KESHAV KUMAR MISHRA		0	23	25	23	25	
59	1900820100060	KHYATI SHANKHWAR		0	23	25	23	25	
60	1900820100061	KISHAN KUMAR		0	24	25	24	25	
61	1900820100062	KRATIKA		0	21	25	21	25	
62	1900820100063	KUNAL VERMA		0	24	25	24	25	
63	1900820100064	LAKSHYA DUGGAL		0	23	25	23	25	
64	1900820100065	LAKSHYA PRATAP SINGH CHAUHAN		0	22	25	22	25	
65	1900820100066	MAAZ KHAN		0	23	25	23	25	
66	1900820100067	MADHAV		0	23	25	23	25	
67	1900820100068	MANAN MEHROTRA		0	22	25	22	25	
68	1900820100069	MANSI VARSHNEY		0	21	25	21	25	
69	1900820100070	MANU VERMA		0	21	25	21	25	
70	1900820100071	MAYANK PRATAP SINGH		0	24	25	24	25	
71	1900820100072	MITALI SINGH		0	21	25	21	25	
72	1900820100073	MOHAMMAD RAZI		0					
73	1900820100074	MOHAMMAD ANAS ANSARI		0					
74	1900820100075	MOHAMMAD BILAL		0					
75	1900820100076	MOHAMMAD FAISAL		0					

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76	1900820100077	MOHAMMAD FAZAL		0	23	25	23	25	
77	1900820100078	MOHAMMAD SHAVEZ SIDDIQUI		0	21	25	21	25	
78	1900820100079	MOHAMMAD UVAIS		0	23	25	23	25	
79	1900820100080	MOHAMMED HAMMAD ZAID		0	23	25	23	25	
80	1900820100081	MOHAN KRISHNA GUPTA		0	24	25	24	25	
81	1900820100082	MOHD ADIL		0	21	25	21	25	
82	1900820100083	MOHD ATIF		0	22	25	22	25	
83	1900820100084	MOHD MOHSIN		0	21	25	21	25	
84	1900820100085	MOHD SAHDEEN		0	23	25	23	25	
85	1900820100086	MOHD ARMANUL HAQ		0	22	25	22	25	
86	1900820100087	MOHD HARIS		0	21	25	21	25	
87	1900820100088	MOHD SHUAIB		0	21	25	21	25	
88	1900820100089	MOHD ZAID ULLAH KHAN		0	24	25	24	25	
89	1900820100090	MUSKAN SINGH		0	21	25	21	25	
90	1900820100091	NAVJEET SINGH MALHOTRA		0	22	25	22	25	
91	1900820100092	NAWAZ ARIF		0	23	25	23	25	
92	1900820100093	NEERAJ KUMAR		0	23	25	23	25	
93	1900820100094	NIDHI		0	22	25	22	25	
94	1900820100095	NIKITA CHAUDHARY		0	23	25	23	25	
95	1900820100096	NIKUNJ RASTOGI		0	22	25	22	25	
96	1900820100097	NIPURN SINHA		0	24	25	24	25	
97	1900820100098	NISHANT GUPTA		0	21	25	21	25	
98	1900820100099	PALAK TRIPATHI		0	24	25	24	25	
99	1900820100100	PANKAJ KUMAR PAL		0	24	25	24	25	
100	1900820100101	PANKAJ KUMAR SINGH		0	23	25	23	25	
101	1900820100102	PRACHI		0	22	25	22	25	
102	1900820100103	PRAKHAR ARORA		0	24	25	24	25	
103	1900820100104	PRAKRITI GAHLOT		0	21	25	21	25	
104	1900820100105	PRANAV GAHLAUT		0	21	25	21	25	
105	1900820100106	PRANJAL RATHORE		0	23	25	23	25	
106	1900820100107	PRATEEK KUMAR SHARMA		0	22	25	22	25	
107	1900820100108	PRERIT AGARWAL		0	23	25	23	25	
108	1900820100109	PRIYA VISHNOI		0	22	25	22	25	
109	1900820100110	PRIYANSHI VARSHNEY		0	24	25	24	25	
110	1900820100111	PRIYANSHU TYAGI		0	22	25	22	25	
111	1900820100112	PRIYANSHU SAXENA		0	24	25	24	25	
112	1900820100113	PULKIT SHARMA		0	22	25	22	25	
113	1900820100114	PUNEET SAINI		0	24	25	24	25	
114	1900820100115	PUNEET BHARDWAJ		0	22	25	22	25	
115	1900820100116	RAHAT ALI		0	21	25	21	25	
116	1900820100117	RAHUL DABRAL		0	22	25	22	25	
117	1900820100118	RAJUL BHATNAGAR		0	23	25	23	25	
118	1900820100119	RAMEEZ AL NAVED		0	22	25	22	25	
119	1900820100120	RISAB KUMAR		0	23	25	23	25	
120	1900820100121	RISHABH PAL		0	21	25	21	25	
121	1900820100122	RISHI TYAGI		0	23	25	23	25	
122	1900820100123	RISHITA VARSHNEY		0	23	25	23	25	
123	1900820100124	RITIK KUMAR		0	23	25	23	25	
124	1900820100125	RITIK SAINI		0	23	25	23	25	
125	1900820100126	RITISH KUMAR SINGH		0	22	25	22	25	
126	1900820100127	ROHIL SAIFI		0	21	25	21	25	
127	1900820100128	ROHIT KUMAR		0	21	25	21	25	
128	1900820100129	RUDRA SARASWAT		0	23	25	23	25	
129	1900820100130	SAMRIDDHI BHARDWAJ		0	23	25	23	25	
130	1900820100131	SARIM HUSSAIN		0	23	25	23	25	
131	1900820100132	SATYAM KUMAR		0	23	25	23	25	
132	1900820100133	SHAHNAWAZ KHAN		0	22	25	22	25	
133	1900820100134	SHAILI RAJPUT		0	21	25	21	25	
134	1900820100135	SHAURYA CHAUHAN		0	24	25	24	25	
135	1900820100136	SHIKHAR SHARMA		0	23	25	23	25	
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137	1900820100138	SHIVANI		0	24	25	24	25	
138	1900820100139	SHIVANK CHAUDHARY		0	22	25	22	25	
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144	1900820100145	SHUBHAM SHARMA		0	21	25	21	25	
145	1900820100146	SHUBHNEET CHOUDHARY		0	23	25	23	25	
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151	1900820100153	TABISH ABSAR		0	21	25	21	25	

Director's Signature

Director
Moradabad Institute of Technology
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Faculty Signature

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Course Name	Chemistry
Course Code	KAS102
Batch	2019 2023
Semester	1
Session	2019 2020
L:T:P	3.1.0

CO Attainment Gap

Course Code	CO	CO Targets	CO Attainment	CO Attainment Gap (Target - Attainment)
KAS102	CO1	55	51.56	3.44
	CO2	55	49.98	5.02
	CO3	55	51.17	3.83
	CO4	55	47.01	7.99
	CO5	55	49.58	5.42

If Gap > 0 : Target not attained
If Gap ≤ 0 : Target attained

Closure of Quality Loop

Course Code	CO	CO Targets	CO Attainment Gap	Action proposed to bridge the gap where targets are not achieved	Modification of targets where Achieved
KAS102	CO1	55	3.44	Lecture notes to be modified.	
	CO2	55	5.02	More examples to be added in lecture.	
	CO3	55	3.83	More practical examples on corrosion and Phase rule will be included.	
	CO4	55	7.99	Examples on fuels will be added in lectures in next offering of course.	
	CO5	55	5.42	More examples will be given in the lecture sothat students can understand this topic effectively.	

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Metallic Bonding

Metals have certain characteristics like thermal & Electrical conductivity, brightness etc. These properties can not be explained by ionic and covalent bonds. There is a different bond present in the metals which binds the metals atom with each other. This metallic bonding can be explain by metal MOT Known as Band theory.

Band Theory :-

According to MOT when two atoms combined to form a diatomic molecule two MOs are formed.

In the formation of crystal of sodium metal by adding Na atoms one by one, first Na_2, than Na_3, Na_4, Na_5 ---- Na_n is formed.

In diatomic Na_2 molecule each sodium atom has electronic configuration $[Ne]3s^1$ with a single 3s valence electron. These two 3s atomic orbitals, one from each sodium atom overlap to form two MOs $\sigma_{(3s)}$ & $\sigma^*_{(3s)}$ and two valence electrons will occupy lower energy level Bonding molecular orbitals (BMO) $\sigma_{(3s)}$.

The Anti Bonding molecular orbitals (ABMO) $\sigma^*_{(3s)}$ become vacant [Fig 1(a)]

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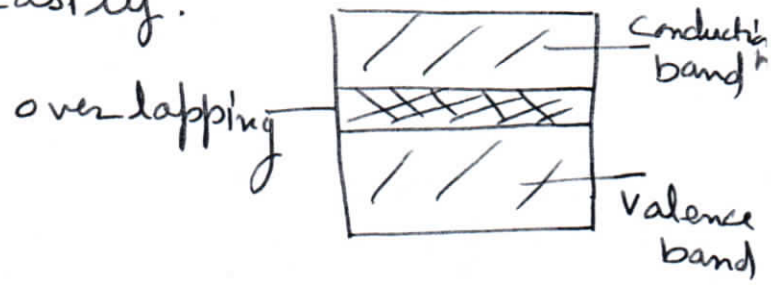
Now, In case of Na_3 molecules 3s ~~[illegible]~~ atomic orbitals combine to form three M.O. (one bonding, one nonbonding & one anti bonding), the three Valence $\bar{e}$ of three Na atoms would occupy bonding & nonbonding MOs [Fig 1 (b)].
Similarly in the formation of Na_4 molecule, four A.Os forms four MOs (2 Bonding, 2 antibond) The four valence $\bar{e}$ of A.O.s occupy two lowest B.M.Os [Fig 1 (c)]. In the formation of Na_n, n atomic orbitals forms n M.O.s.

On increasing the no. of $\bar{e}$ in the the cluster, the space between the energy levels of the various orbitals decreases further and a band of closely spaced M.O. is formed & it is regarded as energy band. The gaps between the bands represents energies in which $\bar{e}$ cannot be present. Such type of gaps are called <u>forbidden bands</u>. The band ~~Cond~~ containing the outer or valence electrons is called <u>Valence band</u>. The empty 3p, ~~[illegible]~~ AOs of Na atoms also overlap to form a wide band of M.Os since 3s & 3p orbitals do not differ much in energy

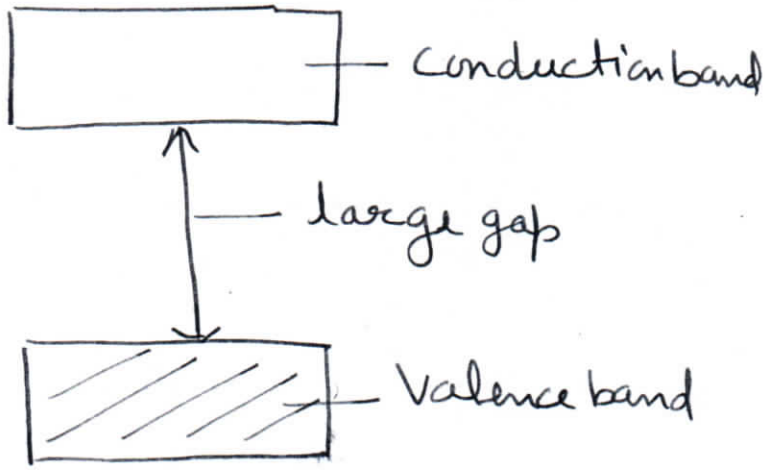
and the band of M.Os formed by s AO & p-AOs join continuously, they are called conduction band.

Metals can be classified into three categories —

(i) <u>Conductors</u> :- If there is no significant gap between valence band & conduction band and overlapping occurs between filled & empty band then $\bar{e}$ can move in any M.O. easily.



(ii) <u>Insulator</u> :- If there is a large gap between Valence & Conduction band then $\bar{e}$ can not move freely in other vaccant M.O.s



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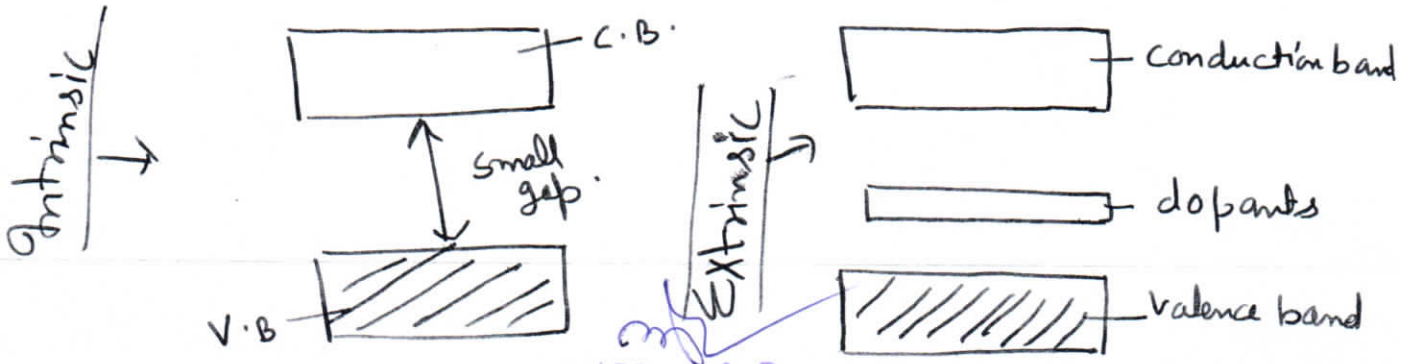
(iii) Semiconductor :- The electrical properties of semiconductor lies between the insulator & conductor. These are of two types —

(a) Intrinsic :- These are basically insulators at ordinary tempr. but their conductivity can be increased by increasing tempr. This property arises when the valence band is separated by conduction band by a narrow forbidden zone or gap. At the increase of tempr. the energy of $\bar{e}$ become sufficient to cross the narrow gap, and makes the substance capable of conducting electricity.

(b) Extrinsic :- These are basically intrinsic semi conductors whose conducting property can be improved by adding small amount of impurity called doping agent or dopant. These dopant reduceses energy gap and allowing more $\bar{e}$ to flow from valence to conduction band.



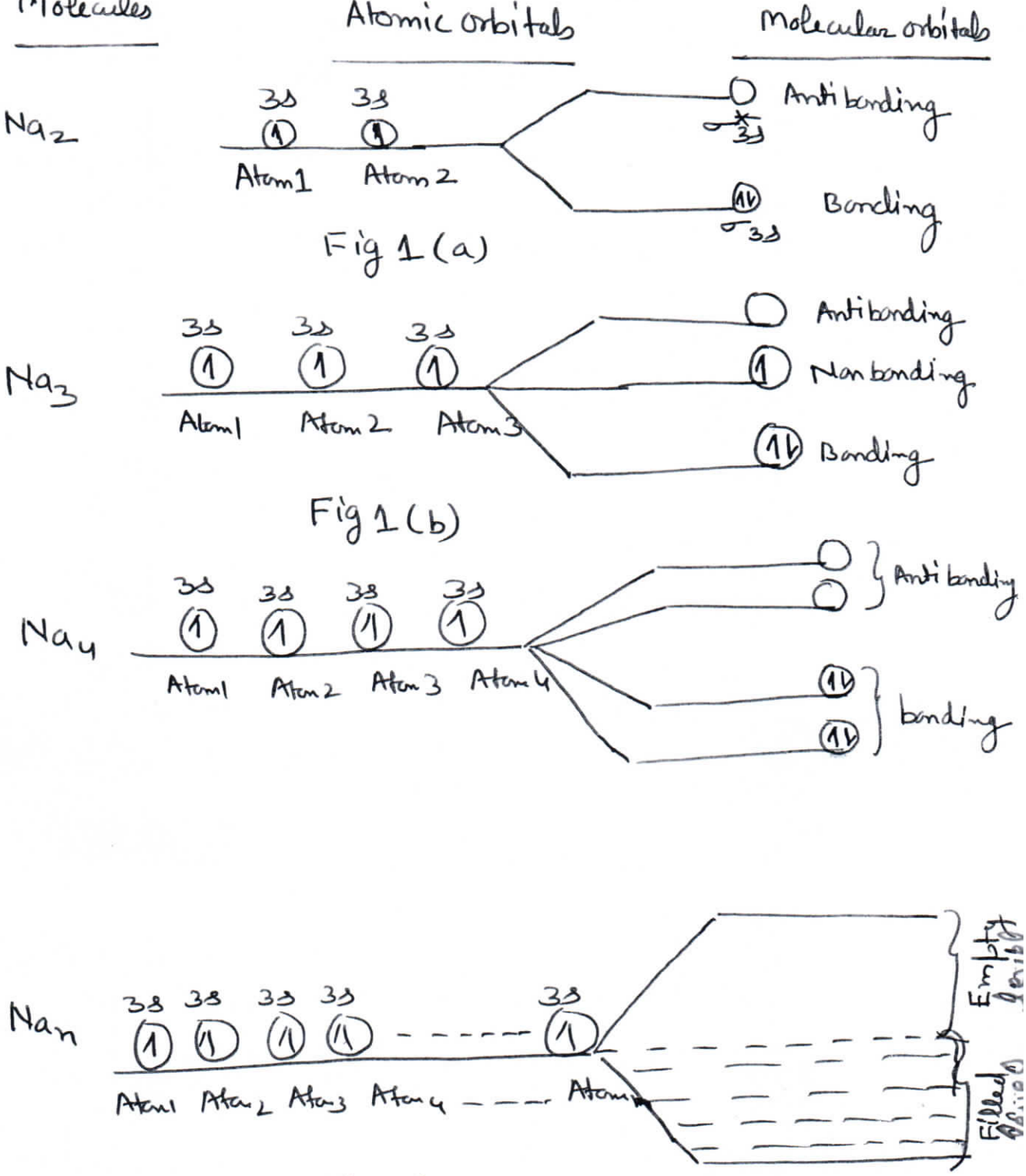


Fig. 1(c)

Formation of bands by M.Os in Na_n metal.

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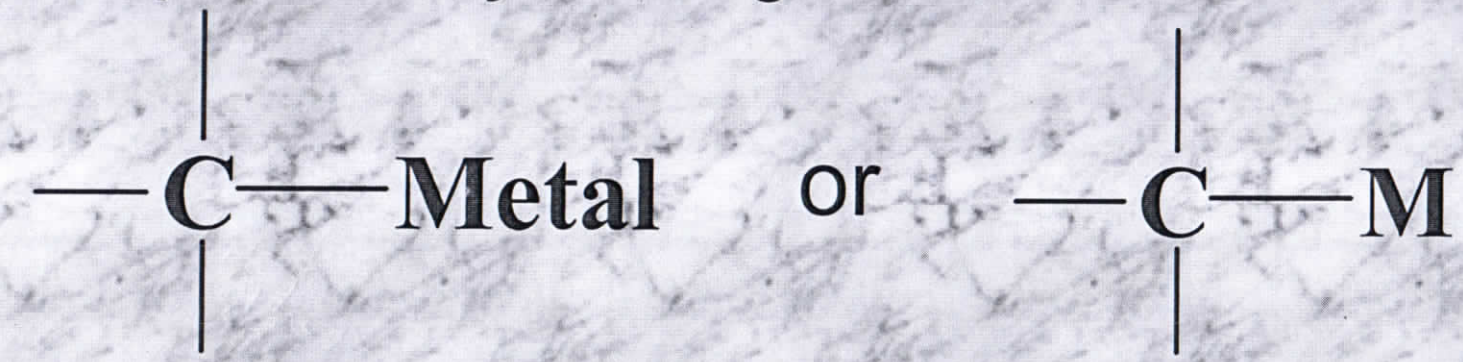
ORGANOMETALLIC COMPOUND

- Those compound which contain at least one carbon-metal bond is called organometallic compound. It may be represented by following formula.



- Organometallic compounds are such compounds in which a metal atom is bonded directly to a carbon atom of a hydrocarbon molecule.

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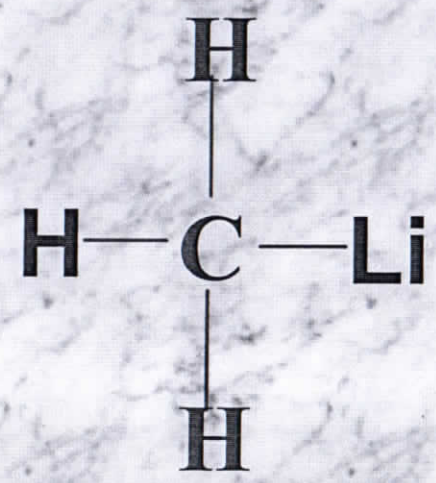
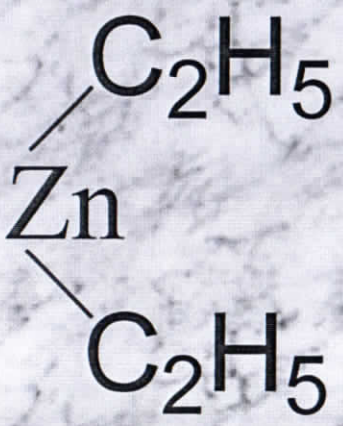
EXAMPLES OF ORGANOMETALLIC COMPOUNDS

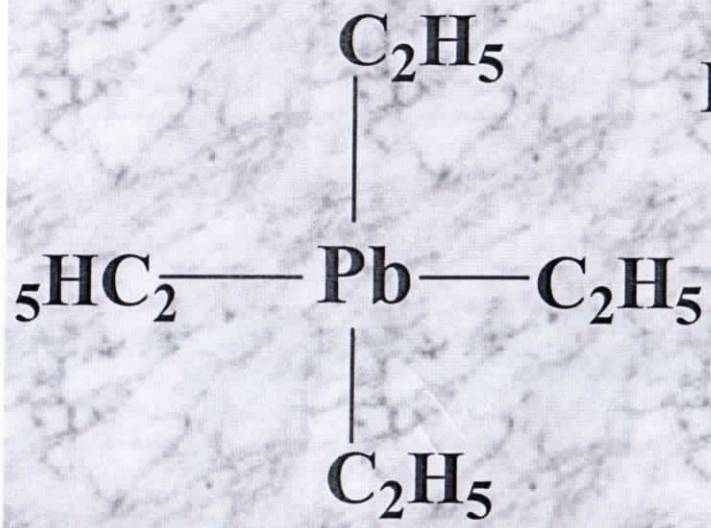


Methyl lithium

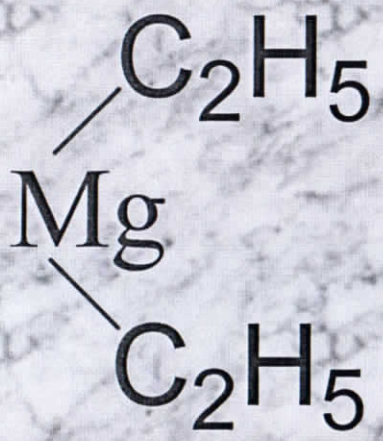


Diethyl zinc

Dimethyl Mercury



Tetra ethyl lead



Diethyl Magnesium

- **It may be noted that all the compounds containing carbon and a metal atom are not organometallics. The term 'organometallic' is reserved to the compound which contain at least one metal-carbon bond. This is shown below.**

$$(RO)_4 — M$$

This is not organometallic as it does not contain M-C bond. (Here metal is bonded to O)

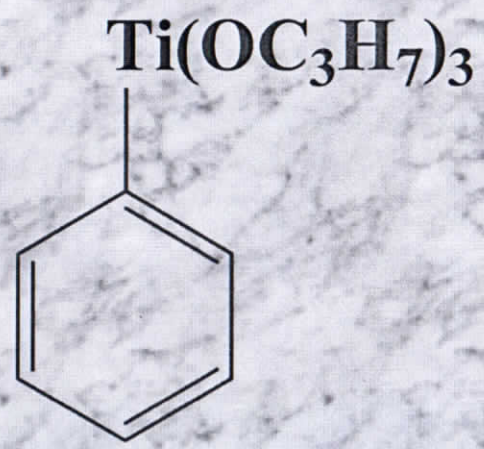
$$R — M — (OR)_3$$

This is an organometallic as it contains one M-C bond (Here metal, M is bonded to carbon of the R group)

For example, an alkoxide, e.g., $(C_3H_7O)_4Ti$ is not considered as an organometallic compound because the organic group is bonded to Ti atom by oxygen and there is no Ti-C bond. Whereas the compound $C_6H_5Ti(OC_3H_7)_3$ is an organometallic compound because in this compound Ti is bonded to carbon of the organic group.

$Ti—(OC_3H_7)_4$

This is not an organometallic compound, as there is noTi-C bond.



This is an organometallic compound as there is a Ti-C bond.

Naming of Organometallic Compounds

These compounds are named by writing the name of the metal after the organic group such as alkyl, aryl etc. Some examples are :

$(C_2H_5)_2Zn$ (Diethyl zinc)

C_2H_5MgBr (Ethyl magnesium bromide)

C_6H_5MgCl (Phenyl magnesium chloride)

Grignard Reagents (R-Mg-x)

Victor Grignard

Victor Grignard prepared an organometallic compound of Magnesium (CH_3MgI, C_2H_5MgBr) and studied the synthetic application of it. On the discovery of these compounds, he awarded nobel prize in 1912 for his remarkable contribution to synthetic Organic chemistry .

Definition:- ***The alkyl magnesium halides are known as Grignard reagents.***

The general formula for Grignard reagents can be written as

$$R—Mg—X \quad \text{or} \quad R—MgX$$

Where R= alkyl or aryl group,e.g., CH_3,C_2H_5, C_6H_5 etc.
X= Cl, Br, I

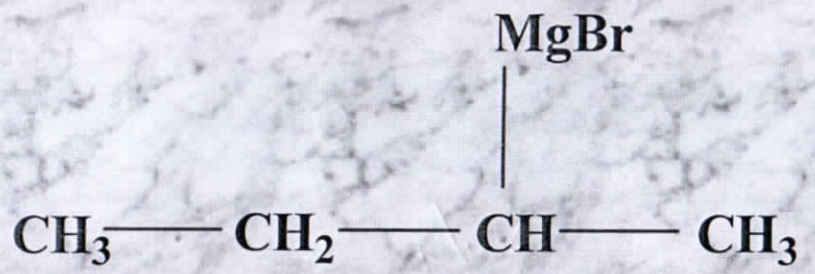
Example:-

C_2H_5—MgBr

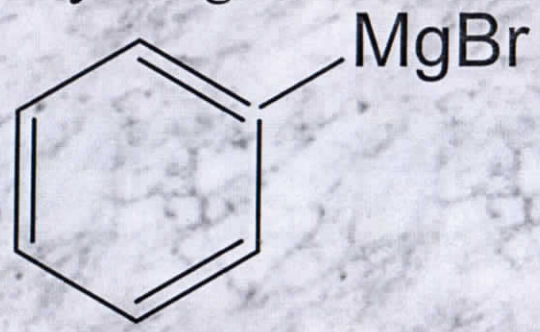
Ethyl magnesium bromide

CH_3MgBr

Methyl magnesium bromide



2-Butyl magnesium bromide



Phenyl magnesium bromide

Methods of Preparation

Grignard reagents are prepared by the action of alkyl halides on magnesium metal in the presence of dry ether.

$$R{-}X + Mg \xrightarrow{\text{Dry Ether}} R{-}Mg{-}X$$

Alkyl Halide — Alkyl magnesium halide

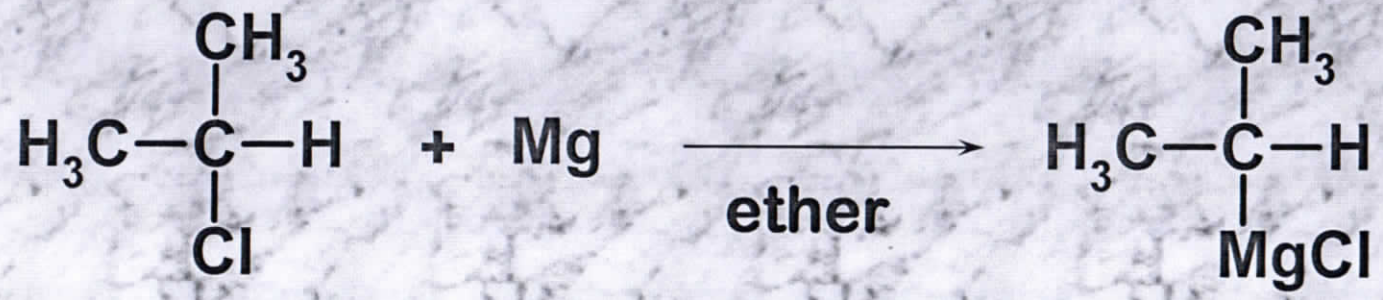
$$CH_3{-}I + Mg \xrightarrow{\text{Dry ether}} CH_3{-}Mg{-}I$$

Methyl iodide — Methyl magnesium iodide

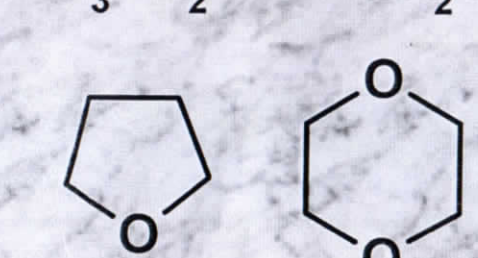
$$C_2H_5Br + Mg \xrightarrow{\text{Dry ether}} C_2H_5{-}Mg{-}Br$$

Ethyl bromide — Ethyl magnesium bromide

FORMATION OF A GRIGNARD REAGENT



Ethers are *obligatory* solvents for the Grignard Reaction. The reaction doesn't work without an ether solvent.



Typical ether solvents are:

- Diethyl ether (b.p. 35° C)
- Tetrahydrofuran (b.p. 65° C)
- Dioxane (b.p. 101° C)

HALIDE REACTIVITIES

$$RX + Mg \longrightarrow R\text{-}Mg\text{-}X$$

RELATIVE RATES :

FAST **R-I** > **R-Br** > **R-Cl** SLOW

- R-I: expensive, not readily available
- R-Br: Moderate
- R-Cl: less reactive, but easy to prepare or buy

Physical properties of Grignard reagents

- Grignard reagents are colourless, nonvolatile solids.

- They are soluble in ether, ethyl alcohol and chloroform etc.

Chemical properties of Grignard Reagents

The molecule of a Grignard reagent has sufficient polar character. The carbon – magnesium bond in RMgx is 35 % ionic. Thus it is logical to represent a Grignard reagent (RMgx) by the formulation :

$$\overset{\delta^-}{R}—\overset{\delta+}{Mg}X$$

Further, it is expected that the alkyl group carrying negative charge being electron-rich can function as a carbanion or a nucleophile. Such electron-rich species, therefore would attack polarized molecules at points of low-electron density. Thus the characteristic reactions of Grignard reagents are nucleophilic substitution and addition reactions

The main synthetic reactions of Grignard reagents may be studied under the following points.

- *Reaction with active hydrogens*
- *Nucleophilic substitution reactions*
- *Nucleophilic addition reactions*

Reaction with Active Hydrogen

compounds like water, alcohols, carboxylic acids and amines which contain active hydrogens react with Grignard reagents to form hydrocarbons.

$$\overset{\delta^-}{R}-\overset{\delta^+}{M}gX + H-A \longrightarrow \underset{\text{Alkane}}{RH} + MgOHX$$

where A = - OH, - NH_2, R – COO- etc.

Examples

$$CH_3—Mg—I + HOH \longrightarrow CH_4 + MgOHI$$

$$CH_3—Mg—I + C_2H_5OH \longrightarrow CH_4 + Mg(OC_2H_5)I$$

Methane

$$CH_3—Mg—I + C_2H_5NH_2 \longrightarrow CH_4 + Mg(NHC_2H_5)I$$

Grignard reagent Ethyl amine Methane

$$CH_3—Mg—I + CH_3COOH \longrightarrow CH_4 + Mg(OCOCH_3)I$$

Nucleophilic Substitution Reactions

The following are some of the typical nucleophilic substitution reactions given by Grignard reagents.

<u>Reaction with reactive Halides:-</u> **Grignard reagents react with reactive halides like allyl bromide to form alkene.**

$$CH_3-Mg-I + CH_2=CHCH_2Br \longrightarrow CH_2=CHCH_2CH_3 + MgIBr$$

Allyl bromide

Reaction with Alkynes

The terminal alkynes react with Grignard reagents to produce alkyl magnesium halides which on subsequent treatment with alkyl halides to form higher alkynes.

$$CH_3-C\equiv C-H + R-MgX \longrightarrow CH_3-C\equiv C-MgX + RH$$

$$CH_3-C\equiv C-MgX + CH_3-I \longrightarrow CH_3-C\equiv C-CH_3 + MgXI$$

2-Butyne

Reaction with cyanogen and cyanogen chloride

Alkyl cyanides are formed when Grignard reagents react with cyanogen and cyanogen chloride.

$$CH_3-MgI + CN-CN \longrightarrow CH_3-C\equiv N + MgICN$$

Grignard reagent **Cynogen** **Methyl cyanide**

$$CH_3-MgI + CN-Cl \longrightarrow CH_3-C\equiv N + MgICl$$

Reaction with chloroamines

Grignard reagents react with chloroamines to give primary amine.

$$CH_3—MgI + NH_2Cl \longrightarrow CH_3NH_2 + MgICl$$

Reaction with Inorganic halides

$$4\,C_2H_5—MgI + 2\,PbCl_2 \longrightarrow (C_2H_5)_4Pb + Pb + 4MgICl$$

Tetra ethyl lead

$$4\,CH_3—MgI + SiCl_4 \longrightarrow (CH_3)_4Si + 4MgICl$$

Tetra methyl Silane

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Reaction with Iodine

When an alkyl magnesium chlroide or bromide is treated with iodine, alkyl iodides are formed.

$$CH_3—MgCl + I_2 \longrightarrow CH_3I + MgICl$$

Nucleophilic Addition Reactions

Some nucleophilic addition reactions are given below.

Reaction with aldehydes

Grignard reagents react with aldehydes to form alcohols.

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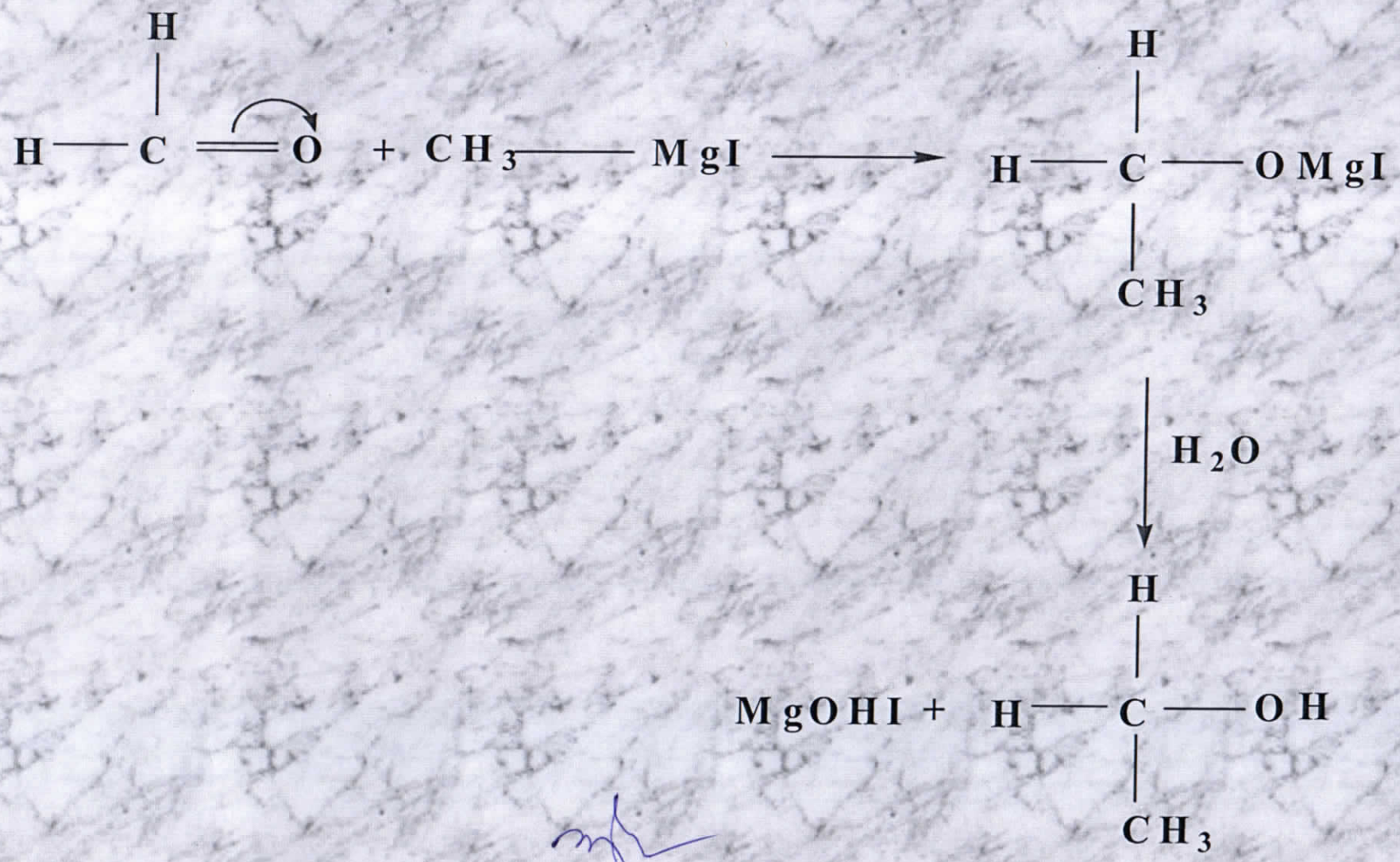
Reaction with formaldehyde

When Grignard reagents react with formaldehyde, primary alcohol is formed.



Ethyl alcohol

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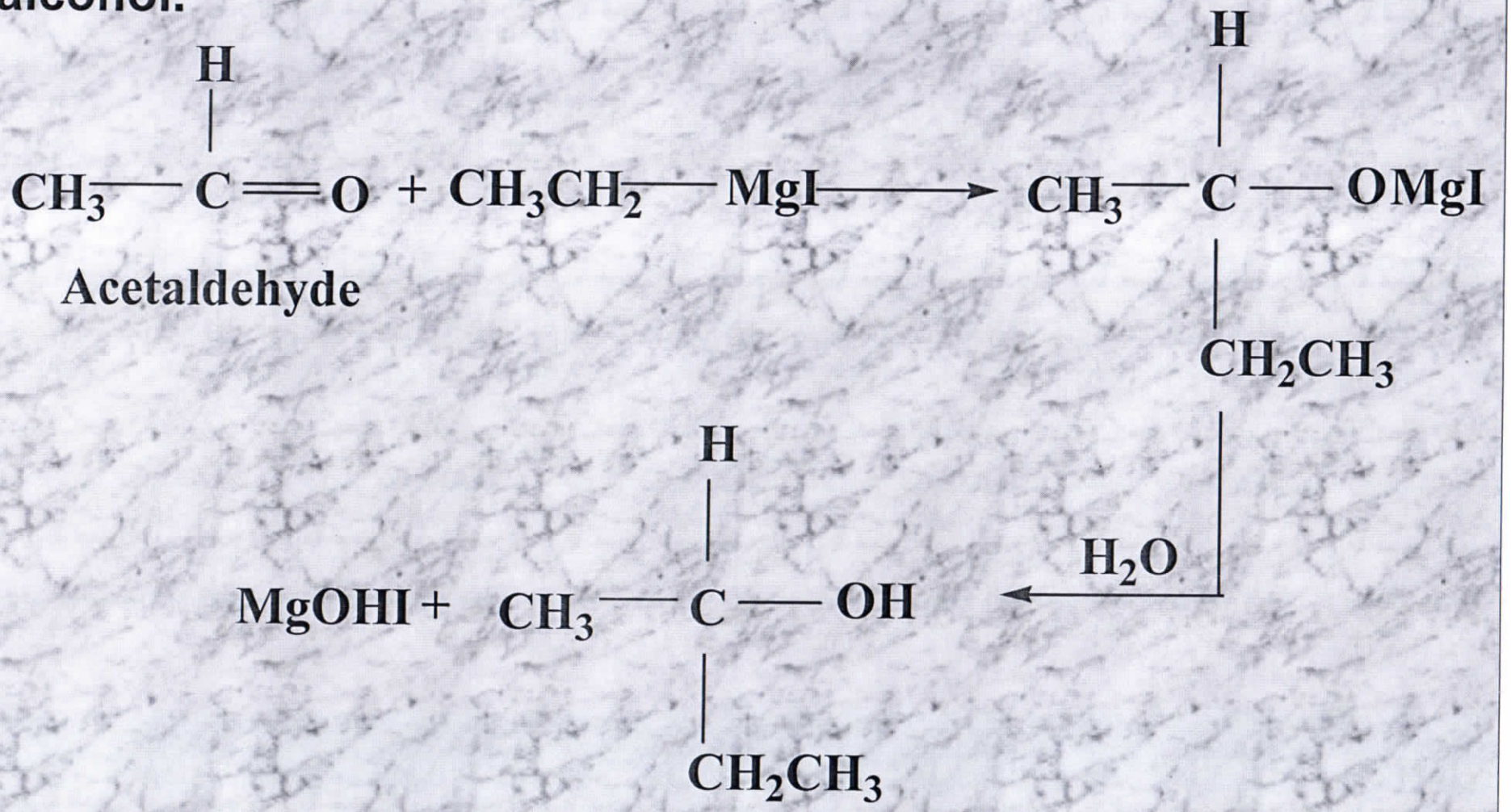
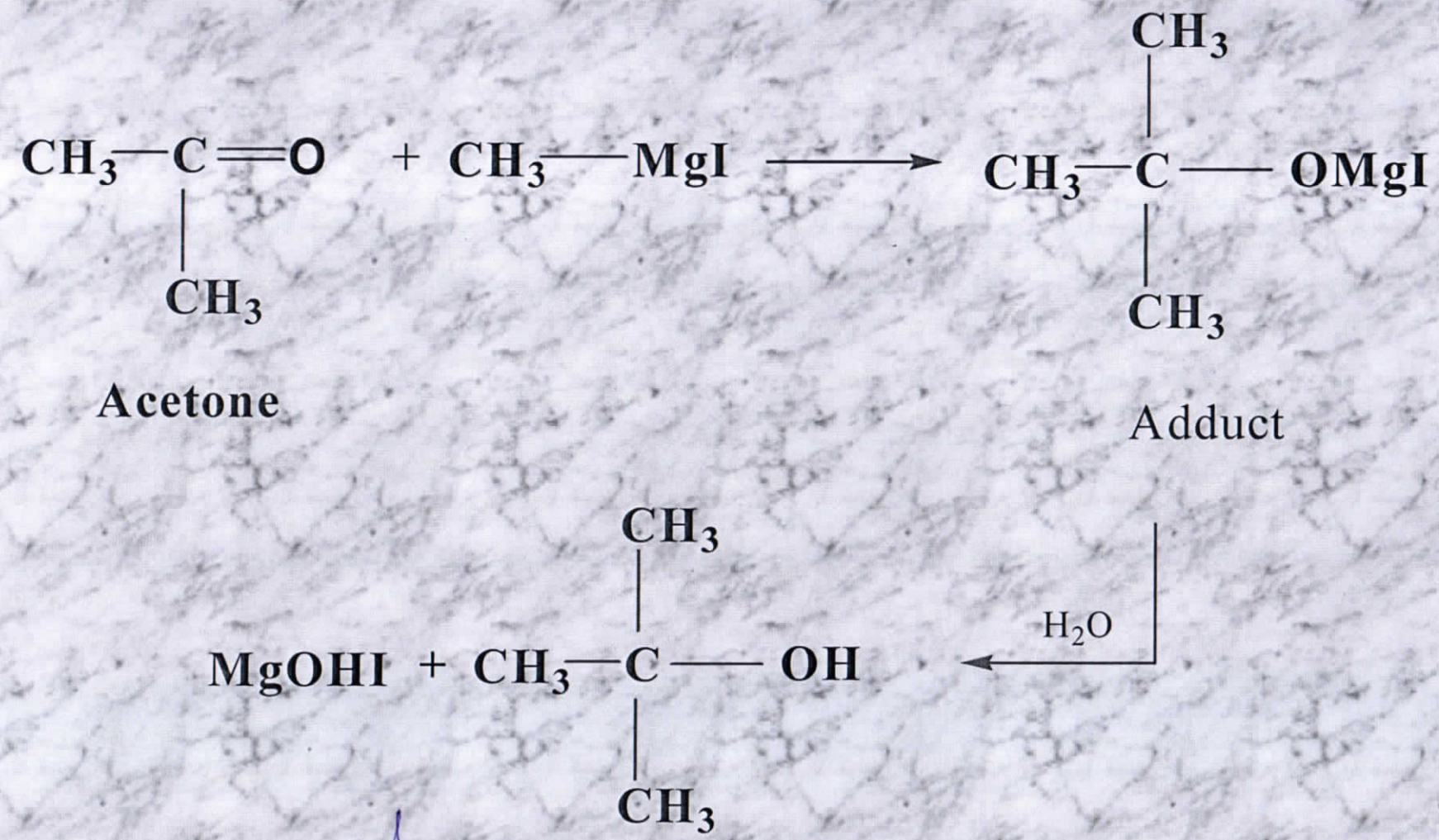
Reaction with Acetaldehyde

Grignard reagent react with acetaldehyde to form secondary alcohol.



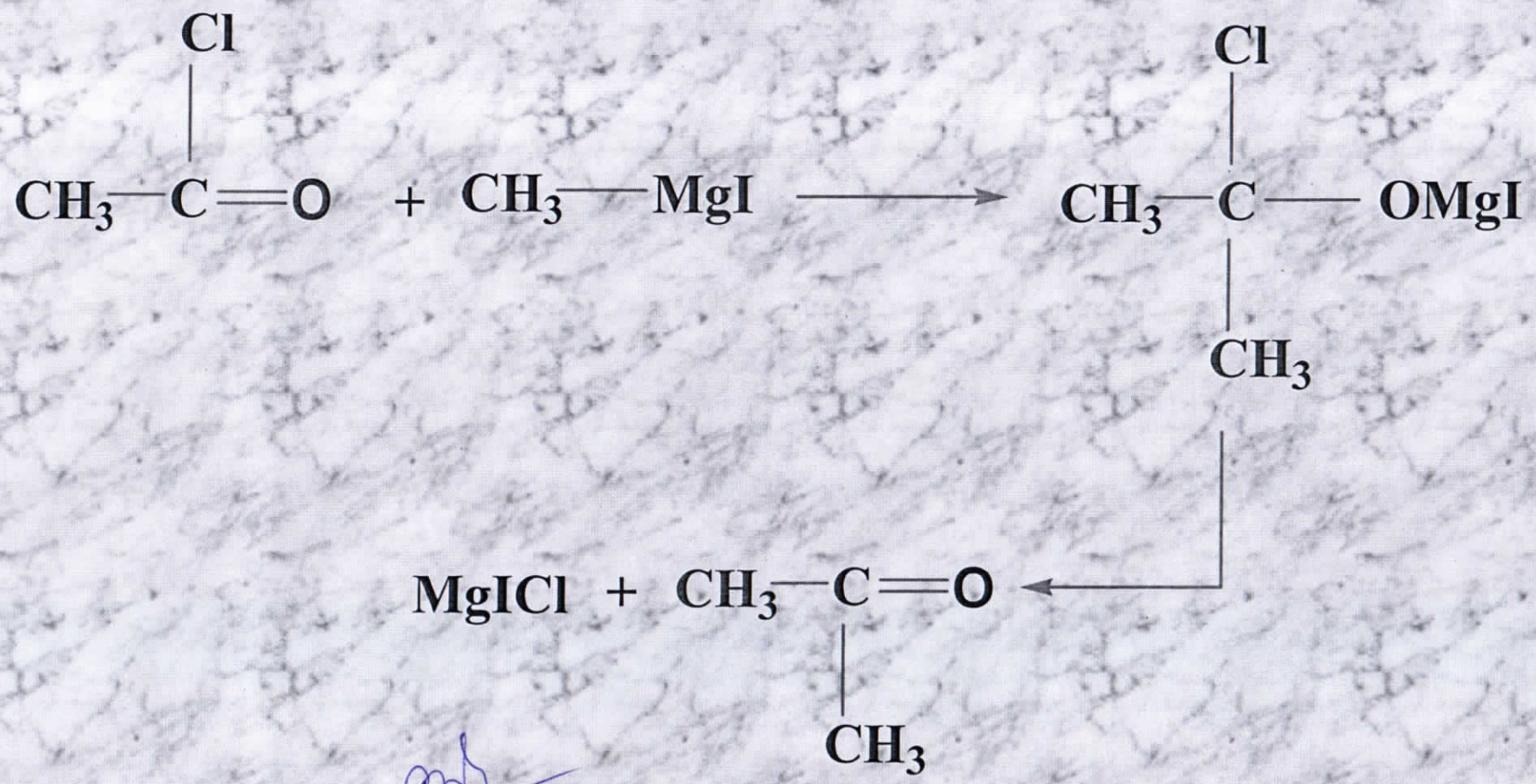
Reaction with Ketones

Ketones react with Grignard reagent to form tertiary alcohol.



Reaction with Acid chloride

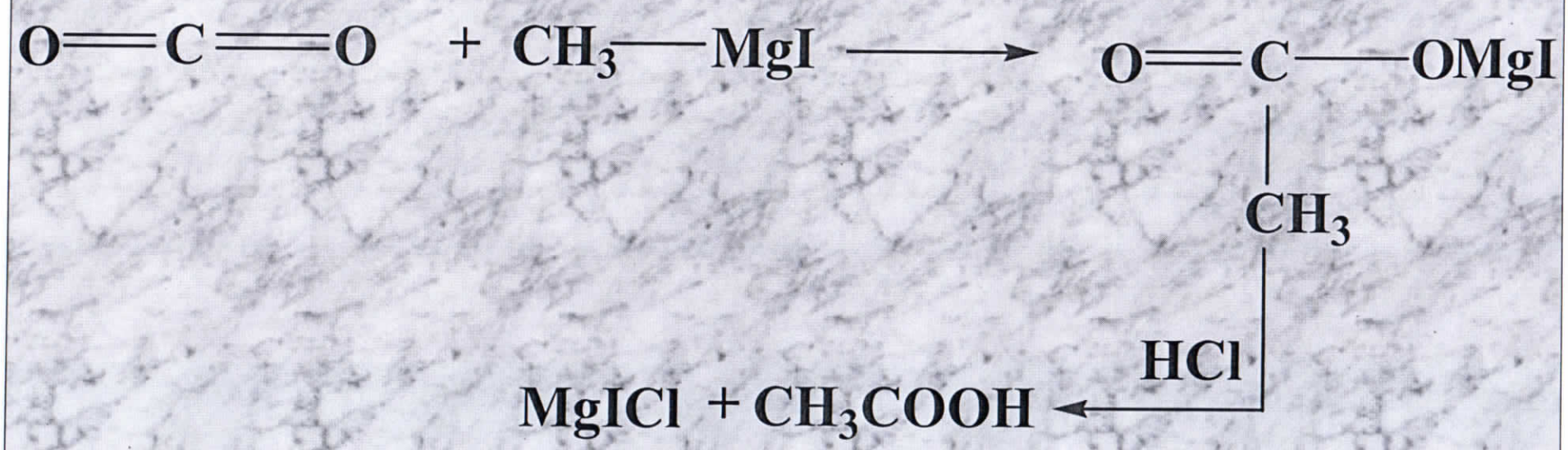
Grignard reagent and an acid chloride react readily to form ketone.



Acetone

Reaction with carbon dioxide

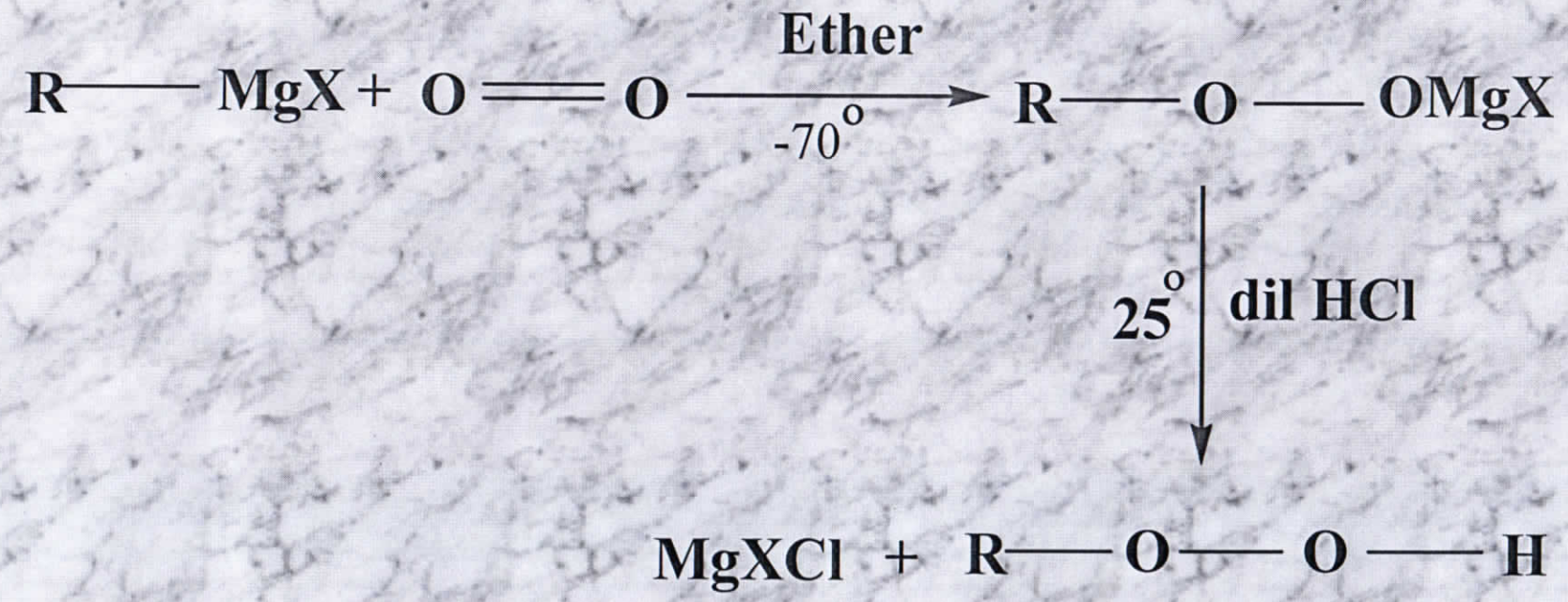
carboxylic acids can be obtained in good yield by pouring the solution of Grignard reagent on finely powdered solid carbon dioxide (dry ice) and then decomposing the complex with dilute mineral acid.



Other Important Reactions

Reaction with oxygen

Grignard reagents react with oxygen at low temperature to form alkyl hydroperoxide .



Alkyl hydroperoxide

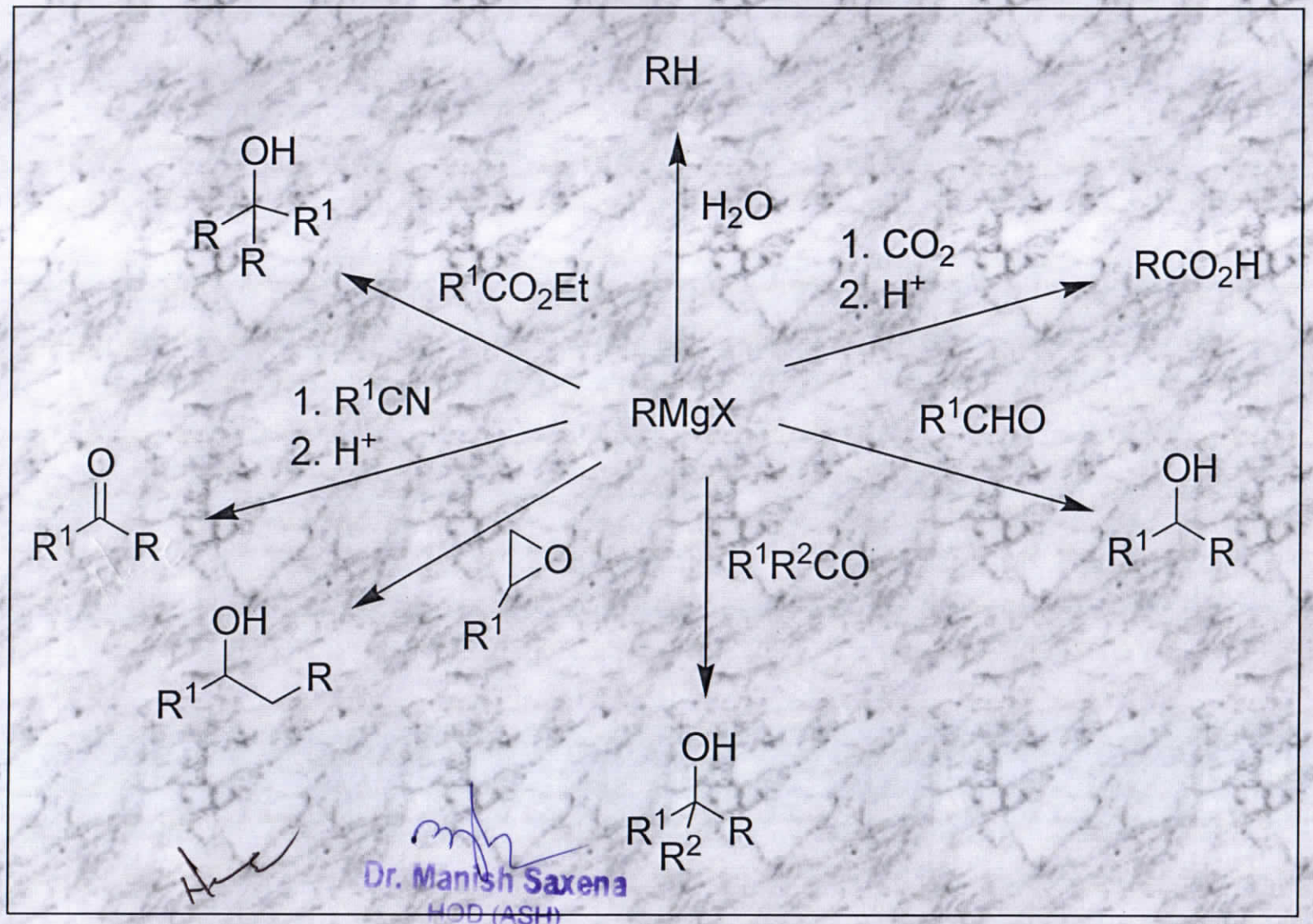
Reaction with Sulphur

Sulphur reacts with a Grignard reagent to form thioalcohol.

$$C_2H_5MgI + S \longrightarrow C_2H_5-SMgI \xrightarrow{H_2O} C_2H_5-SH + MgOHI$$

Ethanethiol

Summary of Grignard Reaction



Application of Grignard Reagent

Grignard reagents are valuable in chemical synthesis. It is used for the preparation of aldehydes, ketones, alcohols, (Primary,secondry and tertiary), nitriles, thiols, tera ethyl lead,tetra methyl silane, monocarboxylic acid etc.

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