



GRY INSTITUTE OF PHARMACY

BORAWAN, KHARGONE

(Approved by AICTE & PCI; Affiliated to RGPV; Recognized by Govt. of M.P.)

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

S.N	Particulars	Page No
1	Experiential learning	01-08
2	Participative learning	09-17
3	Problem Solving methodologies	18-21

JNCET'S GRY INSTITUTE OF PHARMACY

(Approved by PCI & AICTE, New Delhi; Affiliated to RGPV Bhopal; Recognised by DTE Govt. of M.P)



B. Pharma / M. Pharma

Subject: Pharmaceutical Analysis

Subject Code: - BP 108P

Semester: 1st Year 1st Session : 2018 -2019

Name: Kaunika Kathod

Roll No: 0816 PY181041

Vidhya Vihar , Borawan Khargone - 451228 (M.P)

Phone :07285-277847 /Fax : 07285-277848

Visit us at: grypharminst.org E-mail: principalgry@gmail.com

CERTIFICATE

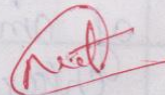
This is to certify that Mr./Ms. Karnika Rathod

Enrollment No. 0816PY181041 Studying in 1st semester 1st year

of this institute has satisfactorily completed the Practical Work in the subject of

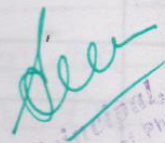
Pharmaceutical analysis and given complete account of

his/her work in this Note-Book.

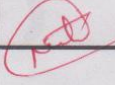
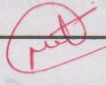
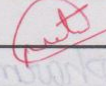
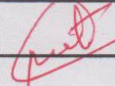
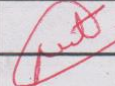
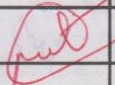

Subject Incharge

Mr. N. Deshmukh

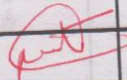

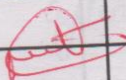

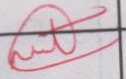
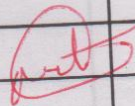
Date: 14/11/18


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Sr. No.	Exp. No.	Object	Date	Page No.	Signature of Teacher	Remarks
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	2	To prepare and standardize 0.1 M KMnO ₄	01/08/18	3-4		B
	3	To prepare and standardize 0.1 H ₂ SO ₄	01/08/18	5-6		A
	4	To perform the assay of ferrous sulphate.	29/08/18	7-8		B
	5	To perform the assay of ammonium chloride.	20/09/18	9-11		C
	6	To prepare and standardize 0.1 N Na ₂ S ₂ O ₃	26/08/18	12-14		A

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Sr. No.	Exp. No.	Object	Date	Page No.	Signature of Teacher	Remarks
	7	To perform the assay of the metronidazole by non-aqueous titration	31/11/18	15-17		B
	8	To perform the conductometry titration of strong acid and strong base.	22/11/18	18-20		D
	9	To Perform the assay of hydrogen Peroxide	31/10/18	21-23		A
	10	To Perform the limit test for chloride	31/10/18	24-26		B
	11	To perform the limit test for sulphate	14/11/18	27-29		C
	12	To perform the limit test for iron	14/11/18	20-32		A

Experiment → 1

01

Object → To prepare and standardize 0.1 N NaOH (sodium hydroxide)

Reference → ^{Balsara} ~~Balsara~~, Dhake D.P. A.S. ^{Pharmaceutical} ~~Inorganic~~ chemistry, 2nd edition Vakil, Vodi, Nashik, Carriev publication 2004 p. 43, 44

Requirements →

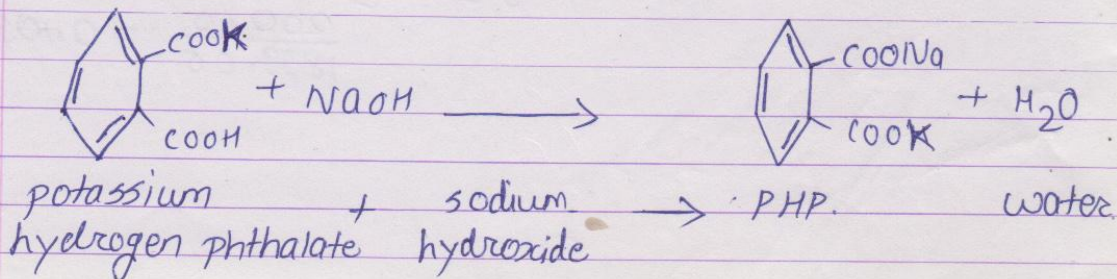
Glass wares / Apparatus → pipette, Beaker, conical flask measuring cylinder, Burette etc.

Chemicals → potassium hydrogen phthalate, phenolphthaline, sodium hydroxide

Principle → Standardization of the 0.1 N NaOH solⁿ (the titrant) is based on the titration with potassium hydrogen phthalate (KHP, $KC_8H_4O_4$) using phenolphthaline

As the indicator, KHP is a weak acid and reacts with base in the following way:-

Reaction →



observation table →

S. NO	volume in conical flask	Burette reading	
		Initial	Final
1	30 ml	0.0	9 ml
2	30 ml	0.0	7.9
3	30 ml	0.0	9.6

$$\frac{9 + 9.6}{2} = \frac{18.6}{2}$$

calculation →

wt of Potassium phthalate = 0.2 wgm

volume of NaOH consumed = ~~10 ml~~ 9.3 ml

$$N \text{ of NaOH} = \frac{wt \times 1000}{\dots}$$

$$\text{Normality} = \frac{wt \times 1000}{\text{eq. wt of k} \times \text{volume}}$$

$$\frac{0.2 \times 1000}{204.2 \times 9.3} = \frac{0.2 \times 1000}{204.2} = 0.09N$$

$$\frac{200.0}{1899.06} = 0.105N$$

Preparation → For 100 ml 0.1 N NaOH dissolve 0.4 gm of NaOH in water and make up to volume up to 100 ml

Procedure → 1) Weight accurately about 0.2 gm of precisely dried Potassium Hydrogen phthalate at 120°C for 2 hours by transfer method.

- 2) ~~Do~~ Dissolve in 30 ml of carbon dioxide free water in conical flask
- 3) Add 2 drops of phenolphthalein and titrate with NaOH until a permanent pink colour is produced.

Result → The strength of prepared NaOH solution was found to be 0.09 N

(init)

GRY Institute of Pharmacy, Borawan Participative Learning

Seminar / Symposium

S. No	Name of Students	Symposium	Date
1.	Anjali Tirole	Board of research and nucleus Science at Chameli Devi Institute of Pharmacy	01/02/2020
2.	Priya Patidar	Board of research and nucleus Science at Chameli Devi Institute of Pharmacy	01/02/2020
3.	Ayushi Patud	Board of research and nucleus Science at Chameli Devi Institute of Pharmacy	01/02/2020
4.	Vijiya Soni	Board of research and nucleus Science at Chameli Devi Institute of Pharmacy	01/02/2020
5.	Nikita Yadav	Board of research and nucleus Science at Chameli Devi Institute of Pharmacy	01/02/2020
6.	Shubham Verma	Board of research and nucleus Science at Chameli Devi Institute of Pharmacy	01/02/2020
7.	Nadeem Sheikh	Board of research and nucleus Science at Chameli Devi Institute of Pharmacy	01/02/2020
8.	Hiralal Verma	Board of research and nucleus Science at Chameli Devi Institute of Pharmacy	01/02/2020

**Board of Research and Nucleus Sciences
Sponsored National Symposium**

Certificate
01st February 2020

This is to certify that
Dr./ Mr./ Ms. Anjali Tirole
 from **GRY Institute of Pharmacy, Borawan**
 has participated in
**"Radiotracer Techniques: Improve Nutritional Status and Health
 of Plants & Animals" held at**
Chameli Devi Institute of Pharmacy Indore


 Organizing Chairman

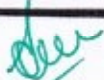

 Coordinator


 Convener








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GRY Institute of Pharmacy, Borawan Participative Learning

S.No	Name of Students	Event name	Date
1	Rafiya Akhtar	Recent development in Pharmaceutical formulation and dispensing at Thakur Shikumar singh Memorial Pharmacy college, Burhanpur, MP	21/09/2019



Burhanpur, M.P.

National Seminar on
"RECENT DEVELOPMENT IN PHARMACEUTICAL
FORMULATION AND DISPENSING"
21st September 2019



Sponsored by



M.P. Council of Science & Technology Bhopal



This is to certify that Dr./Mr./Ms. RAFIYA AKHTAR

of GRYIOP, Borawan, Khargone has Participated in National Seminar "Recent Development in Pharmaceutical Formulation and Dispensing" on 21st September 2019 & Presented Oral /Scientific Poster entitled "Automated Dispensing Machine" A current Scenario of Dispensing in Hospital pharmacy.

K. Thakur
Smt. Kishoridevi Shivkumarsingh
(Chairperson)

Nandu Kayande
Dr. Nandu Kayande
Convener
(Principal)

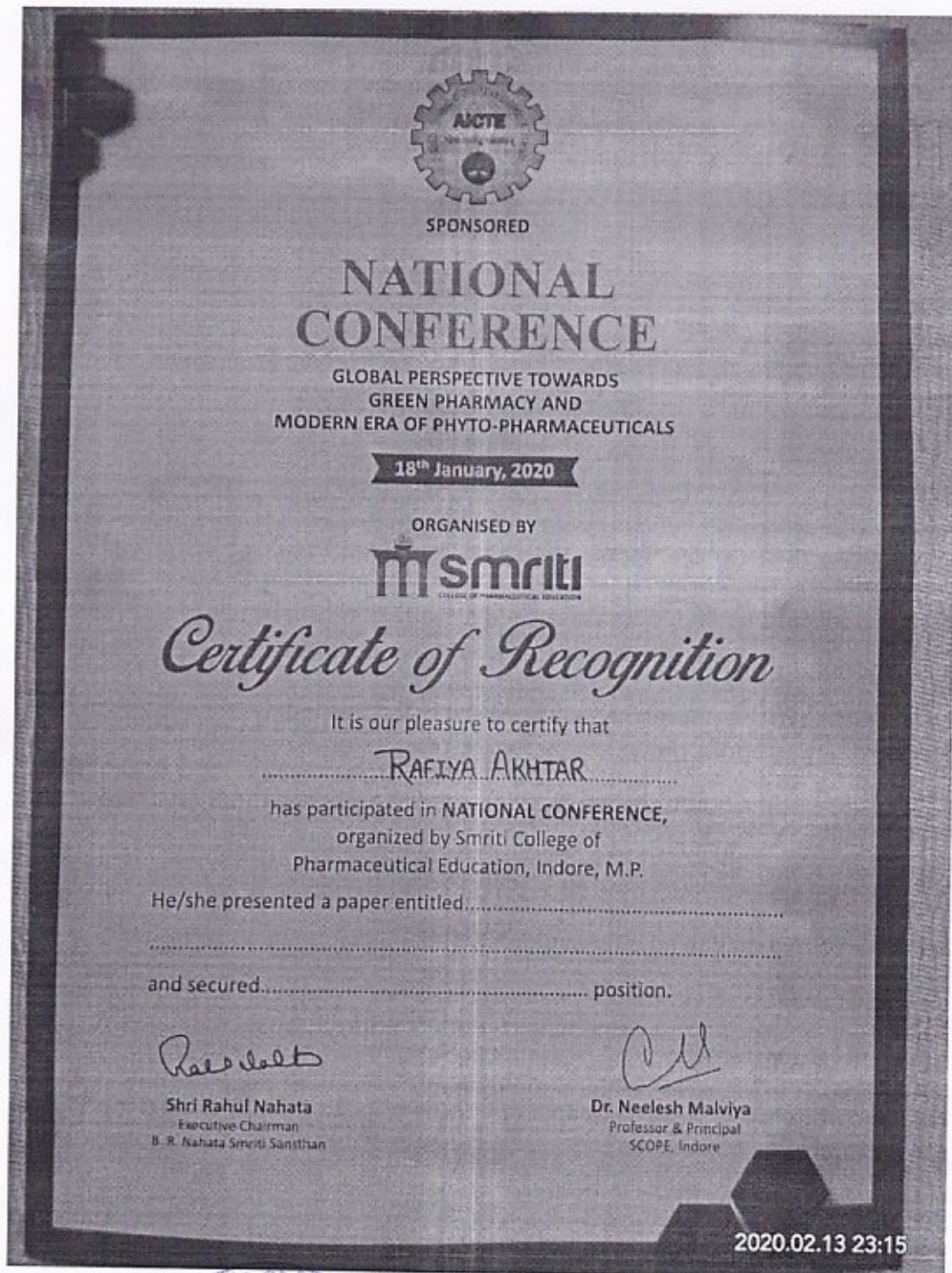
Pankaj Kushwah
Dr. Pankaj Kushwah
Organizing Secretary



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S.No	Name of Students	Event name	Date
1	Rafiya Akhtar	Global Perspective towards green Pharmacy and modern era of phyto pharmaceuticals at Smriti college of pharmaceutical education, Indore, MP	18/01/2020



GRY Institute of Pharmacy, Borawan Participative Learning

Training Program

S. No	Name of Students	Training Program	Date
1.	Ayushi Patud	Advanced post graduate program in clinical research and management	03/08/2021
2.	Abhishek Malviya	Advanced post graduate program in clinical research and management	03/08/2021
3.	Anjali Tirole	Advanced post graduate program in clinical research and management	03/08/2021
4.	Aman Karma	Advanced post graduate program in clinical research and management	03/08/2021
5.	Ashvin Malviya	Advanced post graduate program in clinical research and management	03/08/2021
6.	Gourav Trivedi	Advanced post graduate program in clinical research and management	03/08/2021
7.	Jayesh Patil	Advanced post graduate program in clinical research and management	03/08/2021
8.	Karishma Yadav	Advanced post graduate program in clinical research and management	03/08/2021
9.	Pratik Patidar	Advanced post graduate program in clinical research and management	03/08/2021
10.	Priya Patidar	Advanced post graduate program in clinical research and management	03/08/2021
11.	Priylata Vishwas	Advanced post graduate program in clinical research and management	03/08/2021
12.	Purnima Patar	Advanced post graduate program in clinical research and management	03/08/2021
13.	Vaishali	Advanced post graduate program in clinical research and management	03/08/2021
14.	Shubham JAgtap	Advanced post graduate program in clinical research and management	03/08/2021
15.	Ruchita Raghuvanshi	Advanced post graduate program in clinical research and management	03/08/2021
16.	Nikita Yadav	Advanced post graduate program in clinical research and management	03/08/2021
17.	Rafiya Akhtar	Advanced post graduate program in clinical research and management	03/08/2021



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CLINI INDIA

Academy for Clinical Research & Management

**ADVANCED POST GRADUATE PROGRAM IN
CLINICAL RESEARCH AND MANAGEMENT**

Name: **RAFIYA AKHTAR**

Address: Clini Research Services
6th Floor, Pentagon 2,
Magarpatta City, Hadapsar,
Pune -411013

Registration No.: CI-EL-1691

This is to certify that the candidate has successfully completed **Advanced Post Graduate Program** in Clinical Research & Management. The Candidate has Satisfactory Knowledge & Proficiency in **CLINICAL RESEARCH, CLINICAL DATA MANAGEMENT, PHARMACOVIGILANCE & MEDICAL WRITING.**

Candidate Name: *Rafiya Akhtar*

Registration Number: CI-EL-1691

Program: Advanced Program in Clinical Research and Management

Campus: CLINI INDIA -Pune
eLMS- E Learning Management System

Date of completion : 3 Aug 2021

Clinical Research : A+
Clinical Data Management : A+
Pharmacovigilance : A+
medical writing :



Signature of authorized officer of the Campus

03 AUG 2021

Date



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**GRY Institute of Pharmacy, Borawan
Participative Learning**

S. No	Name of Students	Training Program	Date
1.	Rafiya Akhtar	Intershala Trainings- Training on Data Science	03/08/2021




Sarvesh Agrawal
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S. No	Name of Students	Training Program	Date
1.	Rafiya Akhtar	Certification Course in Pharmacovigilance in Industry (P. Wadhvani college of Pharmacy, Yavatmal) Online Mode	25/05/2020 to 30/05/2020

Yavatmal Zilla Vikas Samiti's
P. WADHWANI COLLEGE OF PHARMACY, YAVATMAL
CERTIFICATE



Gold Rank
In AICTE C-II
Industry Link Survey




IBC
National
Gold Star Award


This is to certify that

Dr./Mr./MS. Rafiya Akhtar


has successfully completed one week Online Short Term certificate course in "Pharmacovigilance in Industry" organized by Continuous Education and Life Long Learning Cell, P. Wadhvani College of Pharmacy, Yavatmal from 25/5/2020 to 30/5/2020.




Permanently
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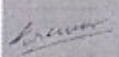



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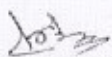


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COURSE COORDINATOR


PROF.(DR.) A.V.CHANDEWAR
PRINCIPAL & CHIEF CO-ORDINATOR




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Seminar

S. No	Name of Students	Seminar	Date
1.	Rajni Shah	Modernization and validation of tribal Medicine to treat life threatening diseases at Swami Viveka nand college of Pharmacy, Indore, MP	16/04/2018
2.	Mayank Yadav	Modernization and validation of tribal Medicine to treat life threatening diseases at Swami Viveka nand college of Pharmacy, Indore, MP	16/04/2018
3.	Pallavi Mahajan	Modernization and validation of tribal Medicine to treat life threatening diseases at Swami Viveka nand college of Pharmacy, Indore, MP	16/04/2018
4.	Deepesh Rathod	Modernization and validation of tribal Medicine to treat life threatening diseases at Swami Viveka nand college of Pharmacy, Indore, MP	16/04/2018
5.	Priyal Patidar	Modernization and validation of tribal Medicine to treat life threatening diseases at Swami Viveka nand college of Pharmacy, Indore, MP	16/04/2018
6.	Poonam Rathod	Modernization and validation of tribal Medicine to treat life threatening diseases at Swami Viveka nand college of Pharmacy, Indore, MP	16/04/2018
7.	Harish Solanki	Modernization and validation of tribal Medicine to treat life threatening diseases at Swami Viveka nand college of Pharmacy, Indore, MP	16/04/2018




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
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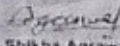
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K. Knowledge Knowledge City, Knowledge Hub, Near Toll Plaza, Indore-452002 (M.P.) W: Ph.97526-45000
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ज्ञान-संगम
National Conference on
**Revival, Modernization and Validation of Tribal Medicine
to Treat Life Threatening Diseases**
16 April 2018

Certificate

This is to certify that Dr./Prof. Mr./Ms. Rajni Shah
has participated/presented ~~oral~~ presentation in MPCST Sponsored National Conference entitled
"Revival, Modernization and Validation of Tribal Medicine to Treat Life Threatening Diseases"
on 16 April, 2018 as a delegate/resource person/organizing committee member.



Mr. Satyaendra K. Shrivastava
(Organizing Secretary)


Dr. Shikha Agrawal
(Coordinator)


Dr. P.K. Dubey
(Organizing Chairman)

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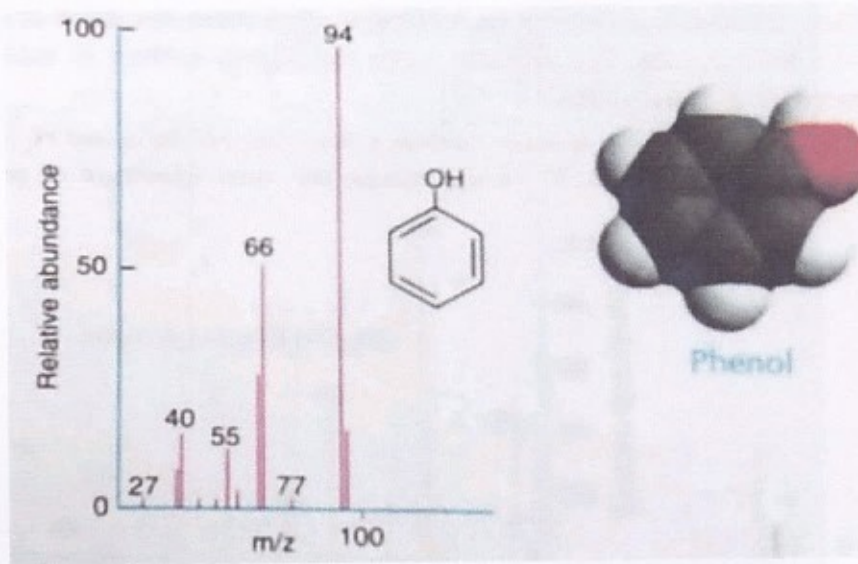



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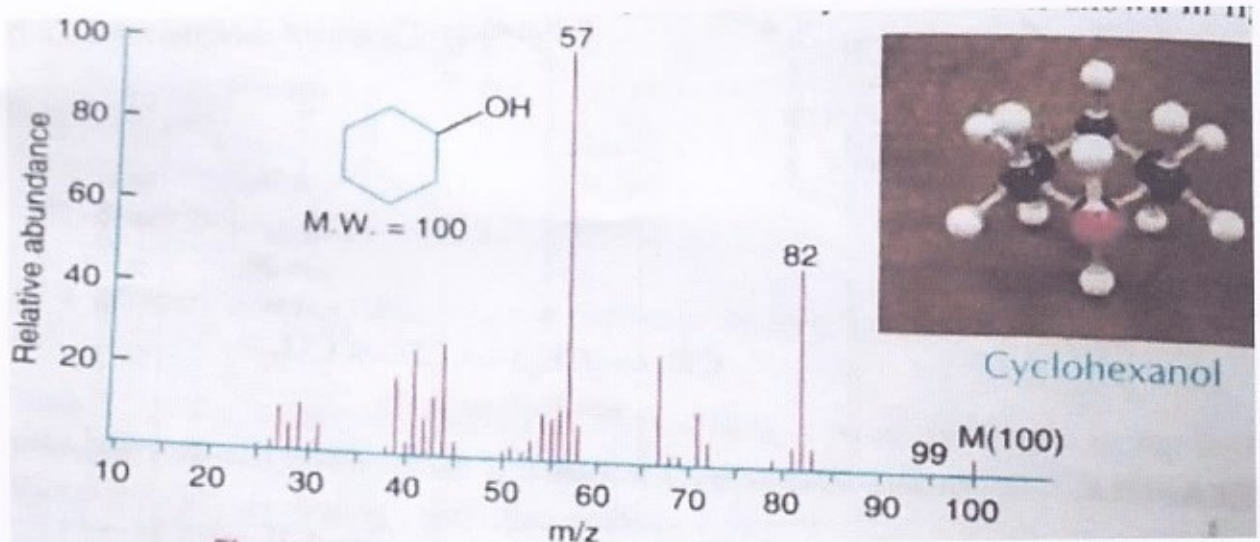
Problem Solving Methodology

Q.1: Interpretate Mass Spectra of Phenol?



1. How many fragmentations are there in phenol?
2. Base peak of Phenol gets formed at.....?
3. M+ peak of phenol found at.....?

Q.2: Interpretate Mass Spectra of cyclohexanol?



1. How many fragmentations are there in cyclohexanol?
2. Base peak of cyclohexanol gets formed at.....?
3. M+ peak of cyclohexanol found at.....?
4. The abundance of cyclohexanol is high or low?

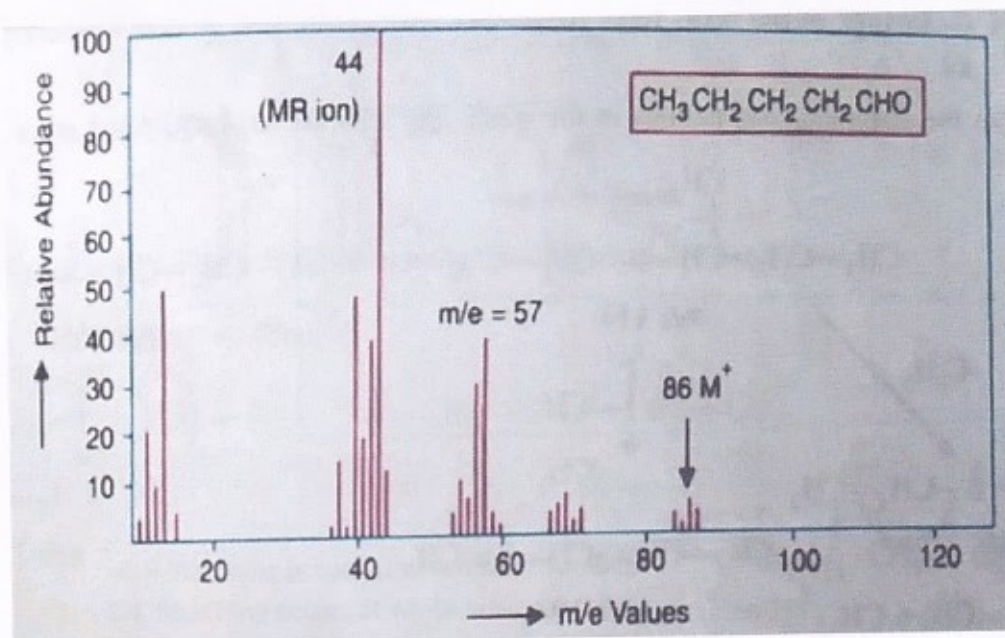



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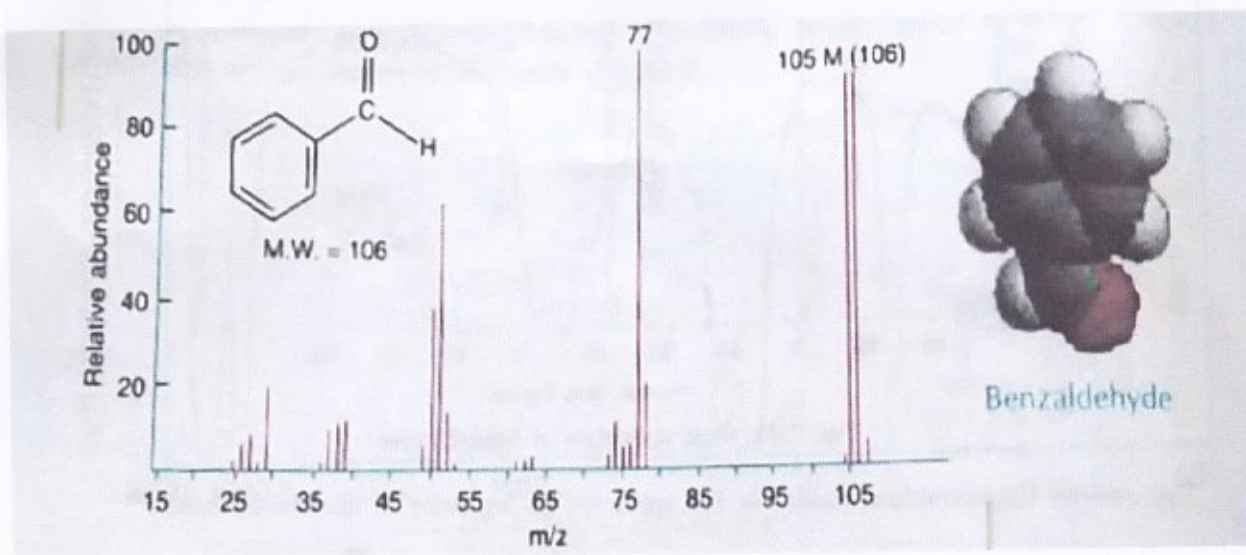
Problem Solving Methodology

Q.3. Interpretate Mass Spectra of Pentanal?



1. How many fragmentations are there in Pentanal?
2. Base peak of Pentanal gets formed at.....?
3. M+ peak of Pentanal found at.....?

Q. 4: Interpretate Mass Spectra of Benzaldehyde?



1. How many fragmentations are there in Benzaldehyde?
2. Base peak of Benzaldehyde gets formed at.....?
3. M+ peak of Benzaldehyde found at.....?
4. How do you identify interpretation of benzaldehyde from mass spectra?

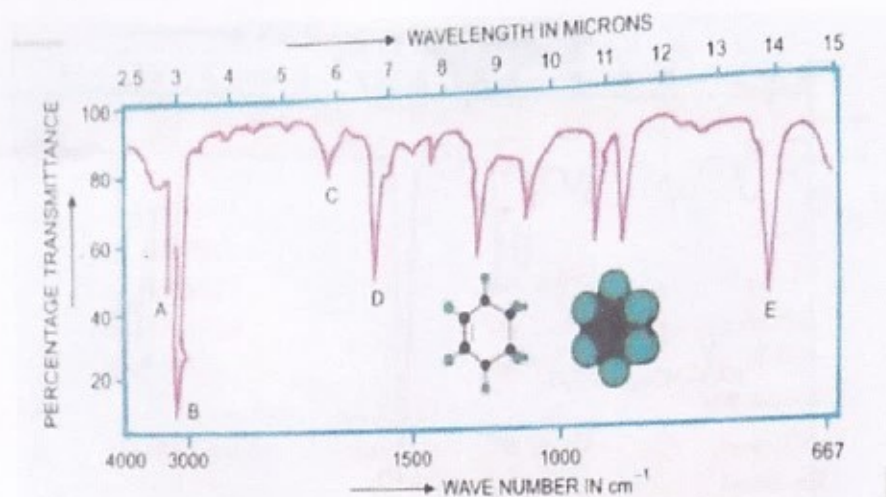


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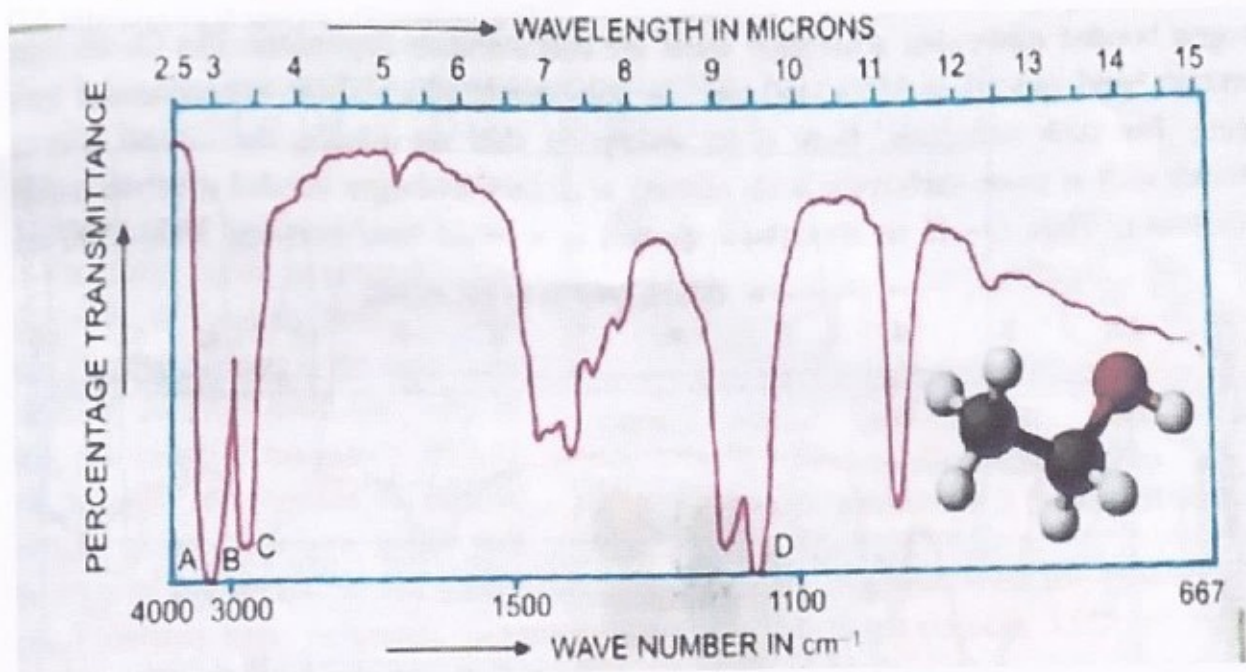
Problem Solving Methodology

Q1: Interpretate IR Spectra Cyclohexene?



1. =C-H Stretching occurs at which wavenumber?
2. C=C Stretching occurs at which wavenumber?
3. 1640 cm⁻¹ is wavenumber for?

Q2: Interpretate IR Spectra Ethanol?



1. O-H stretching occurs at.....?
2. At C point, which compound shows peak?
3. For primary alcohols C-H stretching occurs at?

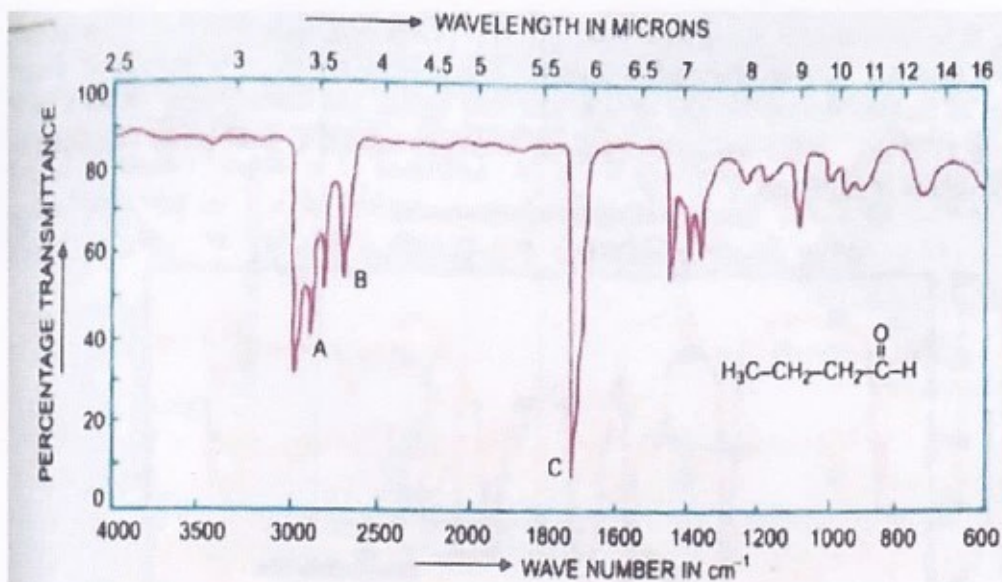


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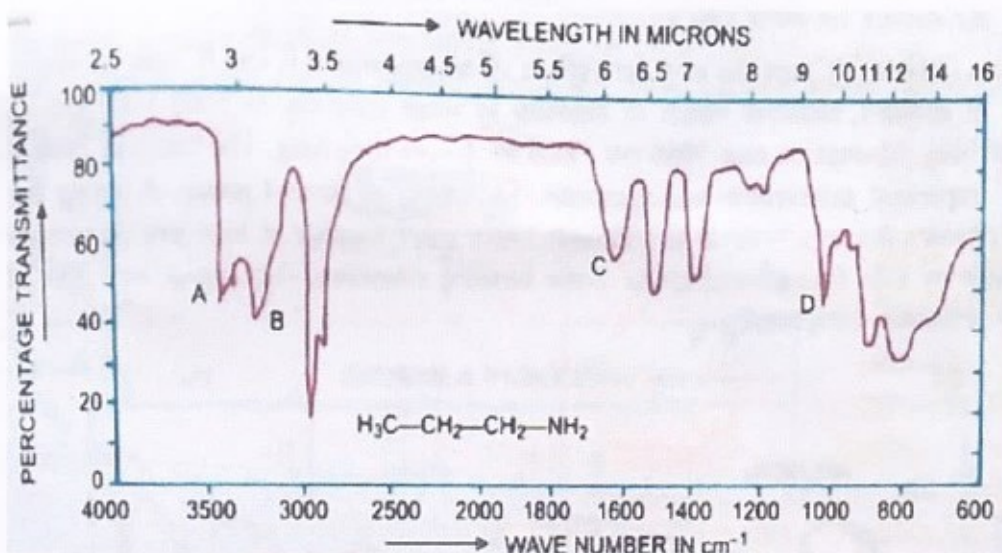
Problem Solving Methodology

Q.3. Interpretate IR spectra of Butanal?



1. C-H stretching (in methyl) peak occurs at what wavenumber?
2. At 1720 cm^{-1} stretching occurs.

Q.4. Interpretate IR spectra of Propanamine?



1. At peak A, which compound shows peak?
2. N-H bending occurs at..... wavenumber?
3. C-N stretching occurs at..... wavenumber?
4. C-H stretching occurs at..... wavenumber?
5. C-H bending occurs at..... wavenumber?




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