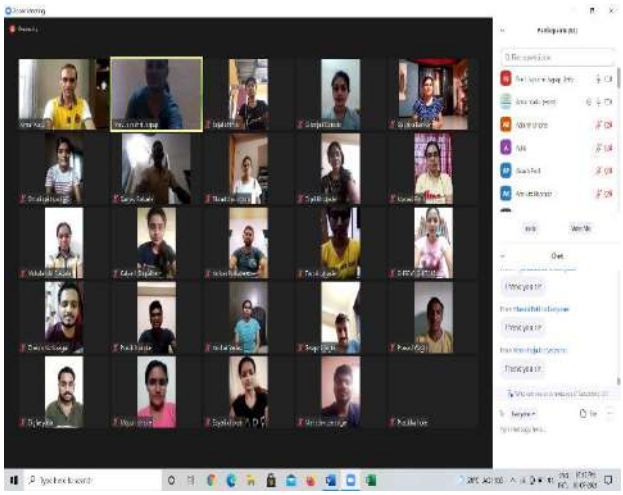
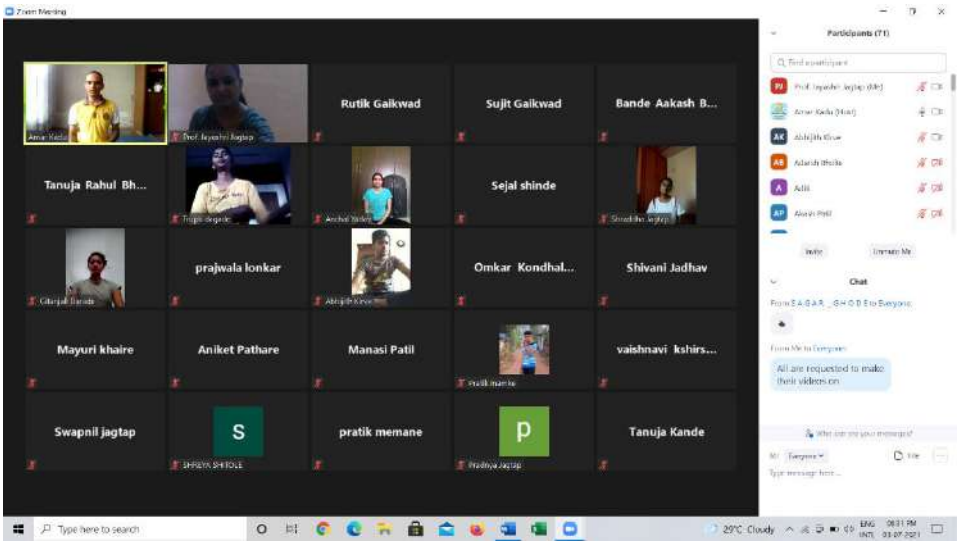
Pune District Education Association's
Seth Govind Raghunath Sable College of Pharmacy, Saswad

Participative Learning

Covid Care Program (01/07/2021- 03/07/2021):

Pune District Education Association's Seth Govind Raghunath Sable College of Pharmacy, Saswad has organized **Covid care Program** in association with Savitribai Phule Pune University, Pune and the Art of living Foundation from 01/07/2021- 03/07/2021 using online platform. The covid care program is a AICTE recommended certified program involves Yoga and meditation training. The Yoga experts Mr. Amar Kadu and Mrs. Vaidehi Kadu gave training of Yoga and meditation to the participant students and staff. Total 30 staff and 213 students participated in the training program. The activity was coordinated by Prof. Jayashri Jagtap, SGRS COP, saswad under the guidance of Mr. Hrishikesh Shah, District Council Member, Art of living and Dr. Rajashri Chavan, Principal, SGRS College of Pharmacy, Saswad.





Elocution Competition

On the occasion of birthday celebration of Hon. Ajitdada Pawar, Deputy Chief Minister, Maharashtra & President, Pune District Education Association, Pune. The college had organized elocution competition on 17th July 2021using online platform. A total of six students participated in the competition. Each student was allowed to talk for Two to five minutes on the topic. The programme was coordinated by Mr. Gaikwad R. K.

The winners of the Elocution competition are as given below:

1. Miss. Pandit Prateeksha D. (S Y B Pharm)

2. Miss Inamdar Srushti S. (T Y B Pharm)

3. Miss Misal Poonam B. (Final Y B Pharm)

The videos of elocution of winner students sent to Mamasaheb Mohol Mahavidyalay Pound road, Pune for PDEA level competition.

Photo of Elocution Competition

Experiential Learning

Post graduate as well as undergraduate students are encouraged to handle sophisticated instruments like UV, HPLC, GC, IR & DSC.

Group E:- 41

Pune District Education Association's
Seth Govind Raghunath Sable College of Pharmacy, Saswad.

2021-2022

PBL -1 TRIGGER

Class: Third Year B. Pharm. (Sem-VI)
Subject: Herbal Drug Technology
Date:-

Trigger1

Past and Present Status of Herbal Medicines: Plants and natural products were used by humankind over the years as food and medicines to cure and prevent diseases. It is very difficult to point out an exact time when the use of plants was started as medicine, the carbon dating from ancient Babylon (Iraq) records that plants were cultivated as medicines 60,000 years ago Written materia medica of medicinal herbs go back approximately 5,000 years in India, China and Egypt and at least 2,500 years in Greece and Asia Minor. Neanderthal remains have been found to contain the remnants of medicinal herbs. Ancient Ayurveda was meant essentially to promote health, however, rather than fight disease. Charak Samhita (1000 BC) and Sushnat Samhita (100 AD) are the main text available. Ayurveda materia medica gives detailed descriptions of over 1500 herbs and 10,000 formulations.

Compilation of- Herbal drugs industry: Present scope and future prospects.

Herbal Drug Technology PBL - Trigger.

Date: 05/01/22

Class: Third year B-pharm (sem-VI)

Group Participants. (41-50)

Roll no.	Names.
41	Padher Achal Dattatray
42	Pandit Pratiksha Dnyandeo
43	Parsagle Mahadev shyam
44	Patil Manasi satish
45	Pawar Aditya Ashok
46	Raut Ashish Umesh
47	Rokde Vishalakshi sanjay
48	salunkhe Dhanashri sanjay
49	sarawde Ranjeet Anil
50	sathe Om Vilas

- Present scope of Herbal drug industry:-

Plant and natural products were used by humankind over the years as food and medicine to cure and prevent disease.

- It is very difficult to point out an exact time when the use of plant was started as medicine, the carbon dating from acient Babylon (Iraq) records that plants were cultivated as medicines 60,000 years ago.
- Written material medica of medicinal herbs go back approximately 5000 years in India, China & Egypt & at least 2500 years in Greece & Asia Minor.
- Neanderthal remains have been found to contain the remnants of medicinal herbs.
- Ancient Ayurveda (4000BC) & Sushrut samhita (100 AD) are the main texts available.
- Ayurveda materia medica gives detailed descriptions of over 1500 herbs & 100000 formulations.
- Currently more than 80% of the world population depends on traditional & plant derived medicine because plants are important sources of medicine & presently about 25% of pharmaceutical prescriptions in the United stated contain at least one plant derived ingredient.
- In the last century, roughly 121 pharmaceutical products were formulated based on the traditional knowledge obtained from various source.
- In fact, it is now believed that nature contributes up

90% to the new drug molecule.

- Nature has provided many of the effective agent such as dactinomycin, bleomycin, & doxorubicin, vinblastine, irinotecan, topotecan, etoposide, & paclitaxel (anticancer), efloquine, chloroquine, amodiquine, artemisinin, artemether & arteether (anti-malarial), metformin & eventually the other biguanide, harunganin, cryptolepine, maprouneacin (anti-diabetic), calanolide A, curcumin, pheroxidiol (anti-HIV drugs) etc.
- India has around 25,000 effective plant based formulations used traditionally with over 1.5 million practitioners of tradional medicinal system & 7800 medicinal drug manufacturing units in India, which consume about 2000 tones of herbs annually.
- Traditional medicine in most regions of the world takes place after WHO Traditional Medicine strategy 2002 - 2005, state member also developed their own documentation & safety concern.
- The diversity of regulations & regulatory categories for Traditional medicinal products makes it difficult to assess the size of the market for products across member states accurately.
- However, available data suggests that the Traditional medicine have significant market in member states.
- Indian herbal market is nearly 50 billion rupees with 14% annual growth.
- one billion rupees worth of herbal product are being exported.

- The demand for medicinal plants is increasing everyday & WHO has projected that global herbal market will grow up to $ 5 trillion in 2050 from the current level of $ 62 billion.
- India and china produce more than 70% of the global diversity.
- The significant global herbal export market include EU, USA, canada, Australia, singapore. and Japan while Brazil, Argentina, Mexico, China and Indonesia are new emerging market.

Future Prospects of Herbal Medicine:-

- It is estimated that there are about 35000 species of existing plants (including seed plants, bryophytes, and ferns), among which 287 655 speices have been identified as of 2004.
- Relatively small percentages (1 to 10%) of these are used as foods by both humans & other animal species.
- It is possible that even more are used as foods by both humans & other animal species.
- It is possible that even more are used for medicinal purpose.
- WHO has shown great interest in documenting the use of medicinal plants used by tribes from different parts of the world.
- many developing countries have intensified their efforts in documenting the ethno-medicinal data on medicinal plants.
- to find out scientific evidence for claims by

tribal healers on Indian herbs has been intensified.

- Once these local ethano-medicinal preparations are scientifically evaluated & disseminated properly, people will be better informed regarding efficacious drug treatment & improved health status.
- The traditional knowledge system needs to be studied, documented, preserved and used for the benefit of humankind, before it is lost forever.
- This will require a holistic approach, and involvement & participation of local inhabitants.
- The Associated chambers of Commerce and Industry of India (ASSOCHAM) has projected that the market size of herbal industry which is currently estimated at Rs. 7,500 crores (Rs. 75 billion) will double to level at Rs. 15000 crores by 2015 since this industry would be growing at a compounded annual growth rate of over 20% hereafter.
- In a study brought out by ASSOCHAM on herbal industry & global market 2015, it is pointed out that India's rich resource of medicinal plants & traditional treasure of knowledge in this area, its share at present is considered very meager.
- A quick estimate of the potential reveals that India can generate raw stock of around Rs. 300 billion and easily achieve around 150 billion Rs value added products.

Pune District Education Association's
Seth Govind Raghunath Sable College of Pharmacy, Saswad

Feedback of students on PBL conducted on :

Subject: Herbal Drug Technology

Class: Third Year B. Pharm.

This questionnaire has been designed to understand the opinion of students involved in the PBL activity so that the activity can be improved in the future. The group leader is advised to answer the questions on behalf of all the group members.

Please **tick** the appropriate box:

Trigger	Yes	No	Can't say
Was the trigger provided to you easily understandable?	✓		
Was the trigger interesting?	✓		
Could you relate the trigger to your curriculum?	✓		
Role of facilitator			
Did you find the role of facilitator useful in understanding the problem?	✓		
Did you take the help of the facilitator in identifying the objectives of the problem?	✓		
Resources			
Did you refer to the books available in the library for compiling the data related to your problem?	✓		
Were there sufficient reference books available in the library for researching the problem?	✓		
Did you find the internet facility and online resources adequate?	✓		
Overall activity			
Do you think PBL is enhancing your comprehension and analytical skills?	✓		
Do you think PBL is enhancing your referencing & researching skills?	✓		
Do you think PBL is contributing towards improving your communication and presentation skills?	✓		
Do you think this activity should be continued in future also?	✓		

Suggestions if any,----------

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Name of the group leader... Patil Manasi ..... Signature..... Mpatil .....

Pune District Education Association's

Seth Govind Raghunath Sable College of Pharmacy, Saswad.

FACILITATOR ASSESSMENT FORM

PBL No.: 1

Subject: Herbal Drug Technology

Class:S Third Year B. Pharm **Date:**

Please rate in the 5 point scale: 5- Excellent, 4- Very Good, 3-Good, 2- Satisfactory, 1 - Not satisfactory

Roll No. of the student / Criteria	41	42	43	44	45	46	47	48	49	50
Application of knowledge base										
Applies previous knowledge to clarify and define the problem.	4	4	4	5	4	4	5	4	4	4
Answers questions and shares his/her opinions by applying acquired knowledge.	4	4	5	5	4	4	5	5	4	4
Critical Thinking										
Demonstrate, evidence, critical understanding and critical analysis facts.	3	4	4	5	5	4	5	4	4	4
Is applicable making conclusion and decision regarding the diagnostic / therapeutic approaches?	4	3	5	5	4	3	5	5	4	4
Demonstrates evidence of following a sequential analysis of the problem.	4	4	4	5	4	3	5	4	4	4
Self Directed Learning(Self study)										
Defines learning objectives and learning goals.	3	4	5	5	5	3	5	4	4	4
Demonstrates evidence of accomplishment of learning objectives.	3	4	4	5	4	3	5	5	4	4
If necessary, seeks counseling to orient His/her study and willing to improve	4	4	4	5	5	4	5	4	4	4
Collaborative work	4									
Works towards achievement of the groups learning goals with commitment.	4	4	5	5	4	3	5	4	4	4
Demonstrates effective interpersonal attributes.	4	4	4	5	4	3	5	5	4	4
Accepts feedback with openness.	4	4	4	5	5	3	4	4	4	4
Reacts positively to feedback and criticism.	4	4	5	5	4	3	5	4	4	4
Stands up for his/her points of view.	4	4	4	5	4	4	5	4	4	4
Shows ability to change his/her point of view of new information given/ obtained.	4	4	5	5	4	3	5	4	4	4

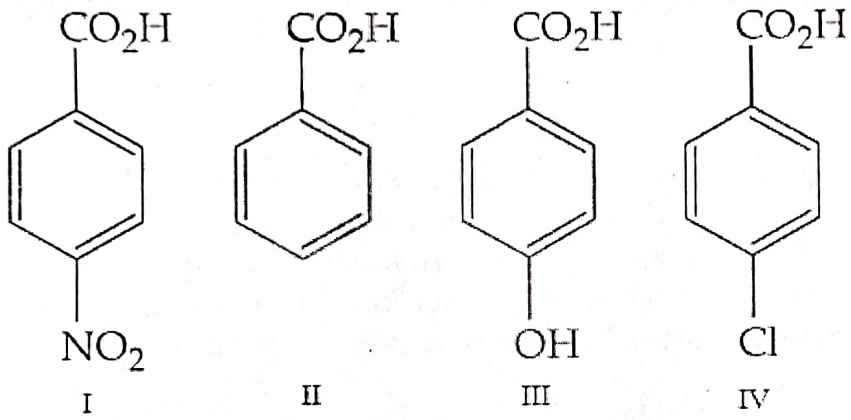
Pune District Education Association's
Seth Govind Raghunath Sable College of Pharmacy, Saswad.

2021- 2022

PBL -1 TRIGGER

Class: F. Y. B. Pharm. (Sem.-II) **Subject:** Pharmaceutical Organic Chemistry-I

Date: 10/06/2022



1) I < II < III < IV
2) II < I < III < IV
3) III < II < IV < I
4) IV < I < II < III

Arrange the above carboxylic acids with their increasing order of acidic strength and justify your answer.

(Mrs. J. R. Jagtap)
Subject Teacher

Pune District Education Association's

Seth Govind Raghunath Sable College of Pharmacy, Saswad.

FACILITATOR's NOTES

Learning Objectives:

1) To learnt about acidity of organic compounds
2) To learnt about the different functional groups and its acidity
3) To study effect of substituent on acidity of organic compounds.

Compilation of:

1) Select correct option of acidity order.
2) Give explanation of correct option
3) Give explanation of incorrect options
4) Explain about acidity of organic compounds.
5) Explain effect of substituent on acidity of organic compounds.

References:

1) Advanced Organic Chemistry by Bahl & Bahl, S Chand Publication, Twentieth Revised Edition, 2011.
2) Organic Chemistry by Morrison & Boyd, 6th edition, Pearson Education.
3) Advanced General Organic Chemistry A Modern Approach by S. K. Ghosh, New Central Book Agency (P) Ltd.,3rd edition.

Pune District Education Association's
Seth Govind Raghunath Sable College of Pharmacy, Saswad.

2021- 2022
PBL

Class: F. Y. B. Pharm. (Sem.-II))
Subject: Pharmaceutical Organic Chemistry-I
Date: 10/06/2022

Sr. No.	Name of Facilitator	Group	Roll number of the students
1.	Ms. Jagtap V. D.	1	1-09
2.	Mr. Nigade G. B.	2	10-18
3.	Ms. Khatal S.S.	3	19-27
4.	Mrs. Jagtap J. R.	4	28-36
5.	Mr. Kale A. P.	5	37-45
6.	Mr. Bhosale N. R.	6	46-54
7.	Mr. Shilimkar V. C.	7	55-65

CMIss. J.R. Jagtap

Pune District Education Association's
Seth Govind Raghunath Sable College of Pharmacy, Saswad

Feedback of students on PBL conducted on **10/06/2022**

Subject: Pharmaceutical Organic Chemistry-I **Class:** F. Y. B. Pharm. (Sem.-II)

This questionnaire has been designed to understand the opinion of students involved in the PBL activity so that the activity can be improved in the future. The group leader is advised to answer the questions on behalf of all the group members.

Please **tick** the appropriate box:

Trigger	Yes	No	Can't say
Was the trigger provided to you easily understandable?	✓		
	✓		
Was the trigger interesting?	✓		
Could you relate the trigger to your curriculum?	✓		
Role of facilitator			
Did you find the role of facilitator useful in understanding the problem?	✓		
Did you take the help of the facilitator in identifying the objectives of the problem?	✓		
Resources			
Did you refer to the books available in the library for compiling the data related to your problem?	✓		
Were there sufficient reference books available in the library for researching the problem?	✓		
Did you find the internet facility and online resources adequate?	✓		
Overall activity			
Do you think PBL is enhancing your comprehension and analytical skills?	✓		
Do you think PBL is enhancing your referencing & researching skills?	✓		
Do you think PBL is contributing towards improving your communication and presentation skills?	✓		
Do you think this activity should be continued in future also?	✓		

Suggestions if any ---- No

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Name of the group leader- ....Kapare.....Rutuja Sanjay Kapare.

Signature.....

Group No.: 4

Pune District Education Association's

Seth Govind Raghunath Sable College of Pharmacy, Saswad.

FACILITATOR ASSESSMENT FORM

PBL No.: 1 Date: 10/06/2022

Subject: Pharmaceutical Organic Chemistry-I Cass: F. Y. B. Pharm. (Sem.-II)

Please rate in the 5 point scale: 5- Excellent, 4- Very Good, 3- Good, 2- Satisfactory, 1 - Not satisfactory

Criteria / Roll No. of the student	28	29	30	31	32	33	34	35	36	
Application of knowledge base										
Applies previous knowledge to clarify and define the problem.	5	4	4	5	5	4	5	4	4	
Answers questions and shares his/her opinions by applying acquired knowledge.	5	5	5	4	5	4	5	5	5	
Critical Thinking		,								
Demonstrate, evidence, critical understanding and critical analysis facts.	4	4	4	5	5	4	5	4	4	
Is applicable making conclusion and decision regarding the diagnostic / therapeutic approaches?	4	5	5	4	4	5	5	5	5	
Demonstrates evidence of following a sequential analysis of the problem.	5	4	4	5	5	4	5	5	5	
Self Directed Learning(Self study)										
Defines learning objectives and learning goals.	5	4	4	5	5	5	5	5	5	
Demonstrates evidence of accomplishment of learning objectives.	5	5	5	4	5	4	5	5	5	
If necessary, seeks counseling to orient His/her study and willing to improve	5	4	4	5	5	4	5	4	4	
Collaborative work										
Works towards achievement of the groups learning goals with commitment.	5	4	4	5	4	5	5	4	4	
Demonstrates effective interpersonal attributes.	5	4	4	4	5	4	4	5	5	
Accepts feedback with openness.	5	4	4	4	5	4	4	4	4	
Reacts positively to feedback and criticism.	4	4	4	4	4	4	5	4	4	
Stands up for his/her points of view.	4	4	4	4	5	4	4	4	4	
Shows ability to change his/her point of view of new information given/ obtained.	5	4	4	5	5	4	5	5	5	

Signature of Facilitator

(Ms. Jagtap J.R.)

PBL

Select correct option of acidity order

III < II < IV < I

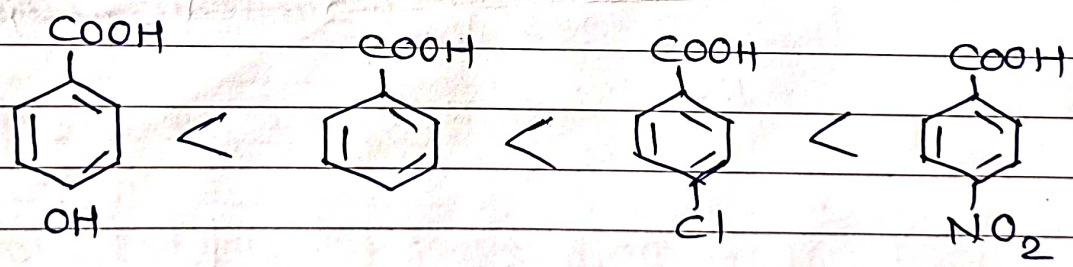
Give explanation of correct option

Electron withdrawing groups increase the acidity of carboxylic acids

$-Cl$, $-CN$, $-NO_2$

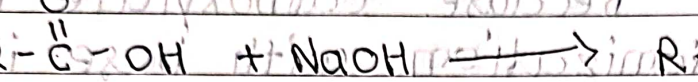
Electron donating groups decrease the acidity of carboxylic acids

$-CH_3$, $-OCH_3$, $-OH$



Q. 4 Acidity of carboxylic Acids

1) carboxylic acids are acidic in nature. They can domate proton and form salt with bases



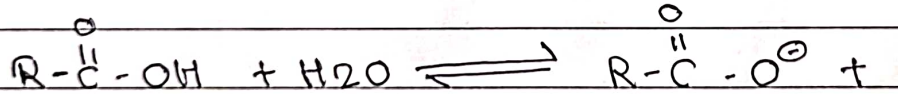
carboxylic acid + Base → Salt

2) Acidity constant:

i] Strong acids (e.g. HCl or H_2SO_4) completely ionize in aqueous solution.

ii] Carboxylic acids are weak acids

iii] They are only partially ionized in aqueous solution & equilibrium exists between ionized and uniomized forms.



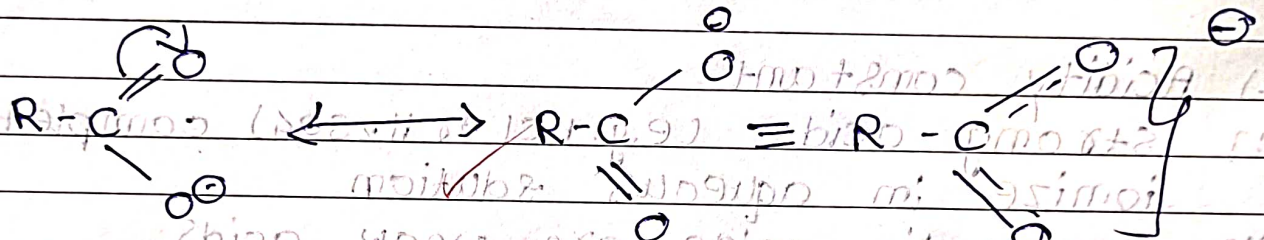
iv] The extent of ionization is described by an equilibrium constant Ka which is known as Acidity constant

v] It is defined concentration of product of ionization in moles per litre divided by concentration of uniomized acids

$$Ka = \frac{[RCOO^-][H_3O^+]}{[RCOOH]}$$

vi] The acidity constant describe relative strength of weak acid

carboxylic acids are acidic and lose a proton readily because carboxylate ion formed by ionization with base is stabilized by resonance



Q.2. Why other three option is incorrect

→ In other option there is no such order of increasing acidity like this option III < II < IV < I.

so, the all other option is incorrect hence, they are incorrect option of increasing acidity strength