



The Sikh Education Society's

Gurumanak College of Pharmacy NAGPUR-440026

E-mail : gncp2004@yahoo.com

Web Address: www.gncp.edu.in

2.3.2: Teachers use ICT enabled tools for effective teaching-learning process.

Examples of documents being used by staff for ICT enabled teaching

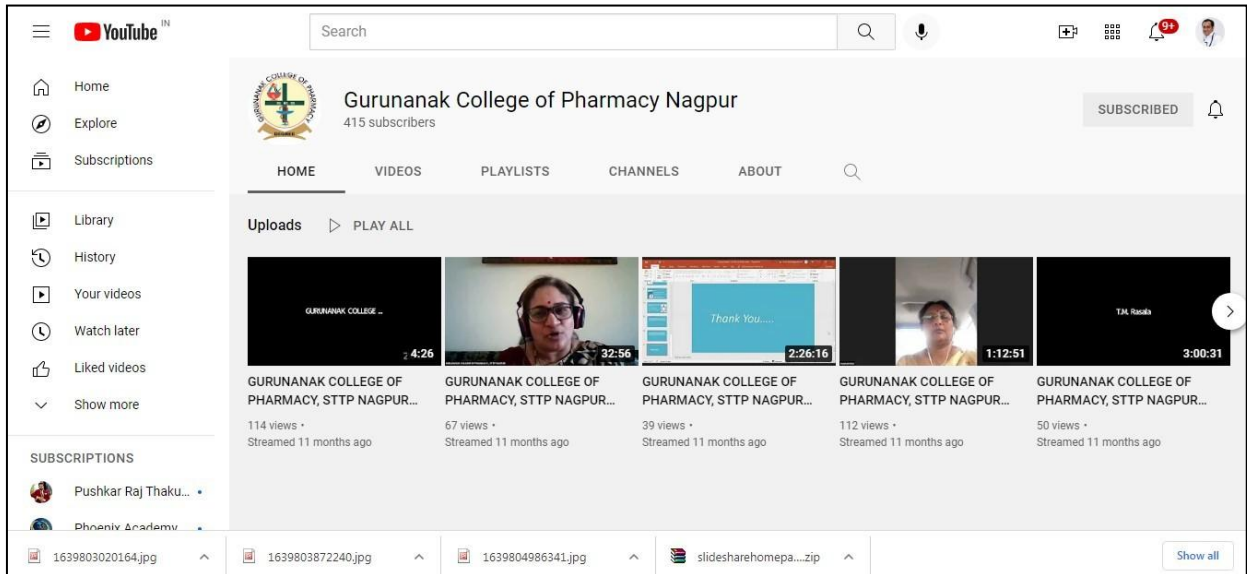
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Principal G. N. C. P.
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YOUTUBE CHANNEL OF THE INSTITUTE AS MODE OF CONTENT DELIVERY

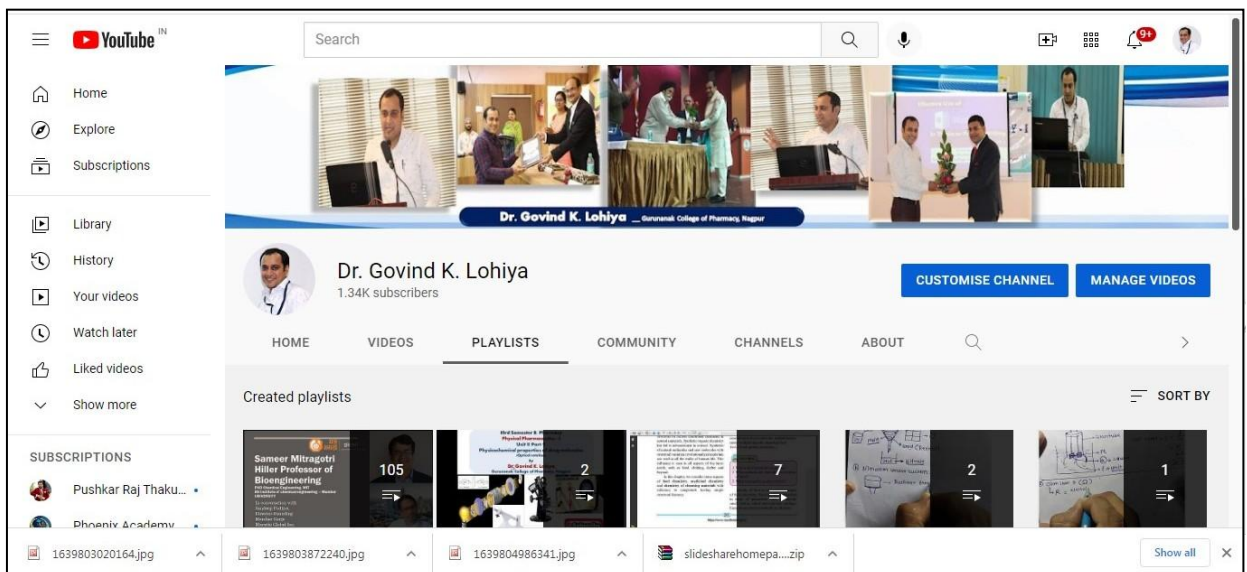
1.



YOUTUBE CHANNEL OF THE FACULTY AS MODE OF CONTENT DELIVERY

1. Govind K. Lohiya

<https://www.youtube.com/c/DrGovindKLohiya>



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2. Sumit Arora ↑

<https://www.youtube.com/channel/UCv9s2wDLvjaBkkEtjUk-cWg?app=desktop>

3. Keshav Moharir ↓

https://www.youtube.com/channel/UCgbiloxvNmRvcu_RN2oqLw

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Wordpress page of faculty

<https://keshavmoharirblog.wordpress.com/fdp-201-x/>

🔒 keshavmoharirblog.wordpress.com/fdp-201-x/ 🔖 ☆ K ⋮

KESHAV MOHARIR

FDP 201 X

SEARCH

Search ...

TEXT WIDGET

FDP 201 X

Dear students,

Please find the link given below as Flipped classroom - out of classroom activity.

[Flipped_Classroom_Activity_KESHAV MOHARIR](#)

Follow the instructions as given below -

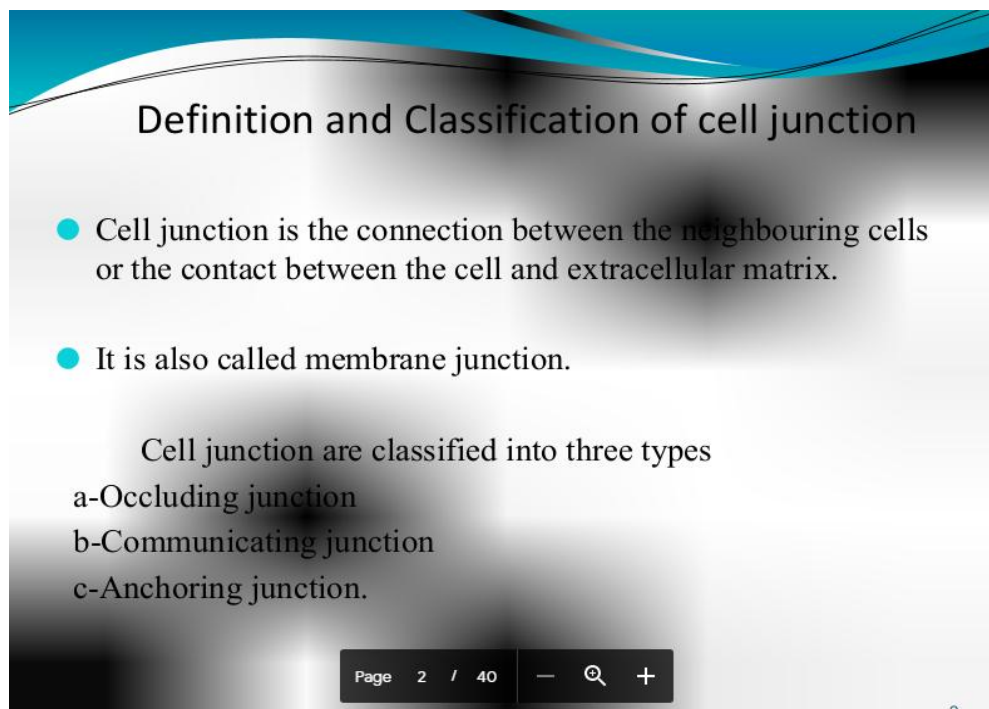
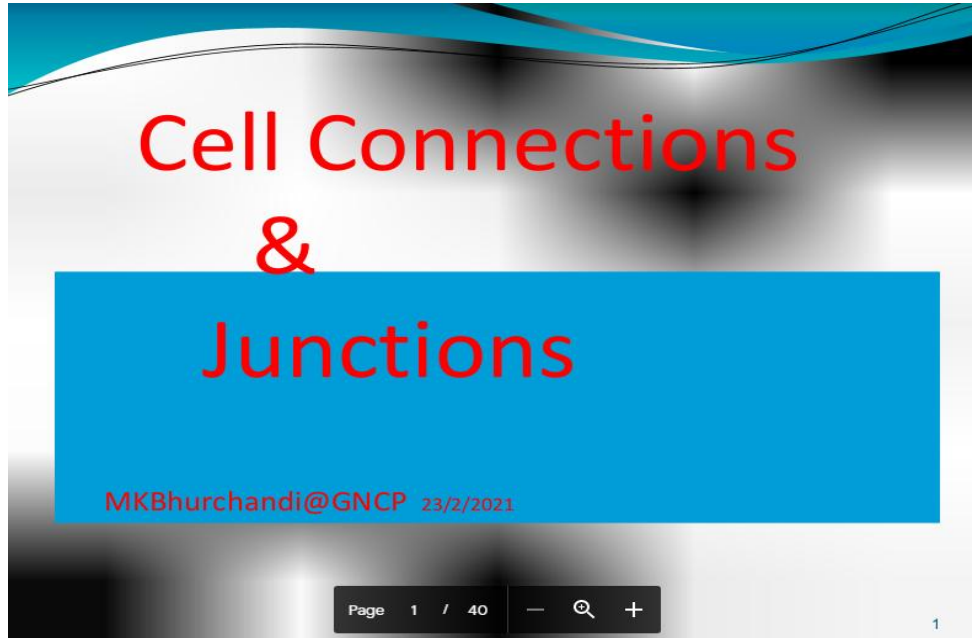
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Representative power point presentation of faculty



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Membrane Structure and Function

Mrs Minal K Bhurchandi Faculty GNCP Nagpur

Membrane Function

- **Membranes organize the chemical activities of cells.**
- The outer plasma membrane
 - forms a boundary between a living cell and its surroundings
 - Exhibits selective permeability
 - Controls traffic of molecules in and out


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The Cell Cycle

Mrs Minal K Bhurchandi@GNCP Nagpur

Five Phases of the Cell Cycle

- ✓ G_1 - primary growth phase
- ✓ S - synthesis; DNA replicated
- ✓ G_2 - secondary growth phase
- collectively these 3 stages are called interphase*
- ✓ M - mitosis
- ✓ C - cytokinesis

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LEVELS OF ORGANIZATION OF HUMAN BODY

Mrs Minal K. Bhurchandi @
Gurunanak College of Pharmacy,
Nagpur

LEVELS OF ORGANIZATION OF HUMAN BODY

- Anatomy is the study of the structure or form of human body parts and how the body parts are arranged in relation with each other.
- There are many disciplines within anatomy.
- GROSS ANATOMY is the study of what can be seen with the naked eye. It is the study of large structures such as organs, bones muscles etc.
- Involves the technique of DISSECTION.
- Dissection means “to section “or “to cut”.

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IIIrd Semester B. Pharmacy

Physical Pharmaceutics -I

Unit II Part-3

Physicochemical properties of drug molecules

(Dielectric constant, dipole moment and dissociation constant)

By

Dr. Govind K. Lohiya

Gurunanak College of Pharmacy, Nagpur



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Physicochemical properties of drug molecules

- Prerequisite for the formulation.
- Types of dosage form
- Chances of incompatibilities
- Stability aspect
- Interrelationship between molecular structure and drug action.

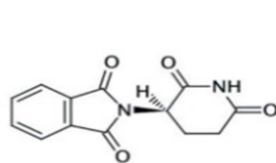
Properties are

Additive:

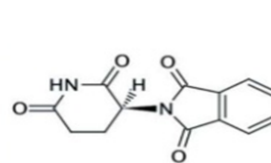
Sum of properties of individual atoms or functional group in molecule. e.g. mass

Constitutive:

Depends on the structural arrangements of atom within the molecules. e.g. Optical rotation



R-(+)- Thalidomide



S-(-)-Thalidomide


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Physicochemical properties of drug molecules

Prerequisite for the formulation.




Additive:
Sum of properties of individual atoms or functional group in molecule. e.g. mass

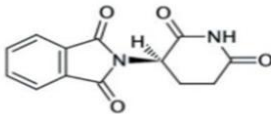


Malformations due to maternal ingestion of thalidomide (Schardein 1982 and Moore 1993).

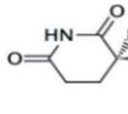
Depends on the **configuration of atoms**



R-(+)- Thalidomide




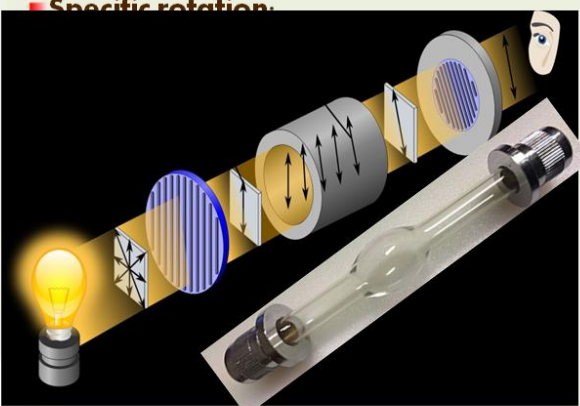
S-(-)-Thalidomide




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1. Optical rotation:

- Optical activity: Dextro and Laevo:
- Construction: Polarimeter
- Working:
- Specific rotation:




L-alanine



(+) dextrorotatory

D-alanine



(-) levorotatory

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1. Optical rotation:

- Optical activity: Dextro and Laevo:
- Construction: Polarimeter
- Working:
- Spec

Formula for Specific Rotation

$$[\alpha] = \frac{\alpha_{\text{observed}}}{c \times l}$$

Observed rotation (units = degrees)
Path length (units = dm)
Concentration (units = g/ml)
Specific rotation (in degrees*)

L-alanine
C[C@@H](C(=O)O)N
(+) dextrorotatory

D-alanine
C[C@H](C(=O)O)N
(-) levorotatory

1. Optical rotation:

- Optical activity: Dextro and Laevo:
- Construction: Polarimeter
- Working:
- Specific rotation:
- Application
 - To determine the optical activity of compound.
 - To determine the purity of the compound (imp Pharmacopoeia test).
 - In QA to determine the concentration of the substances.
 - In sugar industries to determine the quality of sugar juice.

L-alanine
C[C@@H](C(=O)O)N
(+) dextrorotatory

D-alanine
C[C@H](C(=O)O)N
(-) levorotatory

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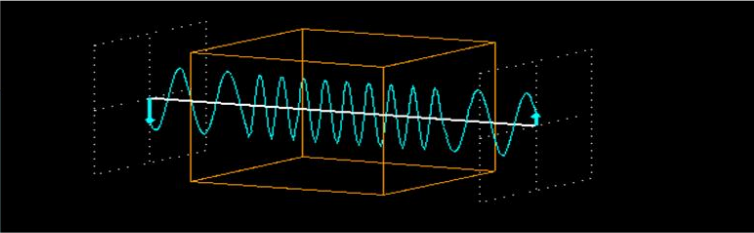
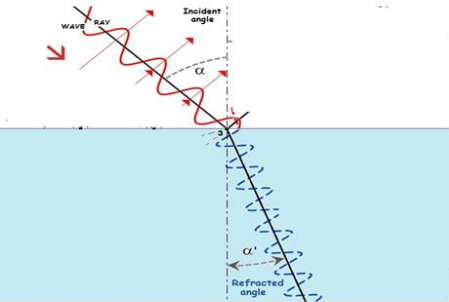
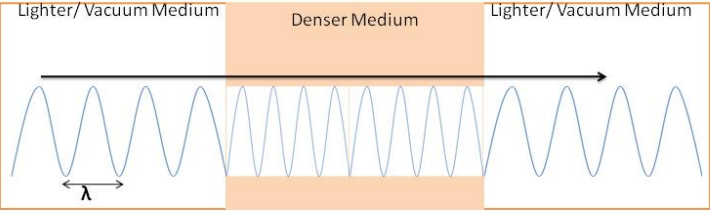
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Refractive index- Optical rotation- Dielectric constant- Dipole moment Dissociation constant

2. Refractive index ($n=c/v$)



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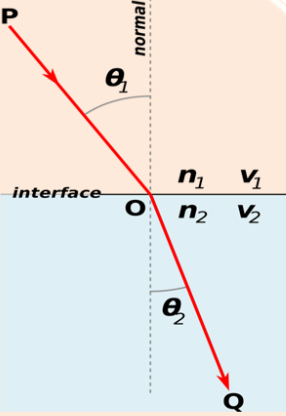
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Refractive index- Optical rotation- Dielectric constant- Dipole moment Dissociation constant

1. Refractive index

- **Refraction: Direction and speed change**
 - Bending toward the interface
 - Bending away from interface
- To check the purity of the compound.
- RI given by the Snell's law:

Snell's Law:
 $n_1 \sin \theta_1 = n_2 \sin \theta_2$
- $n = \sin \theta_1 / \sin \theta_2$



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Measurement of Refractive Index

1. Abbe's 2. Pulfrich 3. Immersion 4. V block

Principle: Critical angle
Construction:

telescope
compensating Amici prisms
shadow and scale seen together
measuring prism
illuminating prism
sample
light source

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Measurement of Refractive Index

3. Immersion 4. V block

Light Beam
Eyepiece
Scale
Sample
Prisms
Mirror
telescope
shadow and scale seen together
measuring prism
illuminating prism
sample
light source

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Measurement of Refractive Index

1. Abbe's 2. Pulfrich 3. Immersion 4. V block

Principle: Critical angle
Construction:
Working:

telescope
compensating Amici prisms
shadow and scale seen together
measuring prism
illuminating prism
sample
light source

Too low
Too high

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Measurement of Refractive Index

1. Abbe's 2. Pulfrich 3. Immersion 4. V block

Principle: Critical angle
Construction:
Working:

light A
Glass cell
Prism
Scale
Telescope
90°
B
C
A
r
i
 μ_0

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Topic:

Measurement of Refractive Index

1. Abbe's 2. Pulfrich 3. Immersion 4. V block

Principle: Critical angle

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Measurement of Refractive Index

1. Abbe's 2. Pulfrich 3. Immersion 4. V block

Principle: Angle of refraction and taking measures the of the exit angle

Construction:

Working:

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Dioscorea



By
Dr. Sumit Arora
Assistant Professor,
Gurunanak College of Pharmacy, Nagpur

Dioscorea

Dioscorea belongs to the chemical class of steroids


Synonyms

Yam, Rheumatism root

Botanical Source

Dioscorea is the dried tubers of several species of *Dioscorea* like *D. villosa*, *D. prazeri* Prain and Burk; *D. composite*; *D. spiculiflora*; *D. deltoidea* and *D. floribunda*

Family: Dioscoreaceae.


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Guggul



By
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Gurunanak College of Pharmacy, Nagpur

Guggul

Guggul belongs to the chemical class of Resins

Synonyms

Gumguggul, Salai-gogil. Scented bdellium, Indian Bdellium

Botanical Source

Guggul is a oleagumresin obtained by incision of the bark of *Commiphora mukul* (H. and S.) Engl., *Commiphora weightii*. It should not contain less than 1.0 % and not more than 1.5 % of guggulsterones (Z and E).

Family: Burseraceae


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Pharmacognosy of Digitalis



By
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Assistant Professor,
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Digitalis

Digitalis herb belongs to the chemical class of Cardiac glycosides.

Synonyms

Digitalis leaves, foxglove leaves.

Botanical Source

Digitalis consists of dried leaves of *Digitalis purpurea*. It should not contain more than 5 % moisture.

Family: Scrophulariaceae.

Cultivation, collection and preparation:

It is a biennial or perennial herb of about 1-2 meters.


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Pharmacognosy of Opium



By
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Opium

Opium belongs to the chemical class of Isoquinoline alkaloids.

Synonyms

Raw Opium

Botanical Source

It is dried latex obtained by incision from the unripe capsules of *Papaver somniferum* Linn. It should not contain less than 9.5 % of morphine calculated as anhydrous morphine.

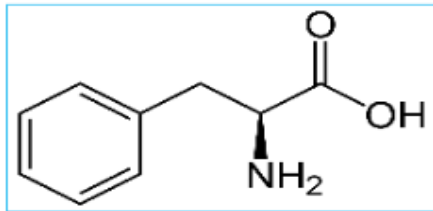
According to British Pharmacopoeia opium required to contain not less than 10 % of morphine and not less than 2.0 % of codeine. The Thebaine content is limited to 3 %.

Family: Papaveraceae.

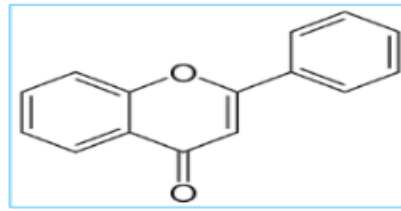

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Phenylpropanoids and Flavonoids



Phenylpropanoids



Flavonoids

By
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Lignans

- ✓ This is a group of plant nutrients (phytonutrients found in vegetables in fruits, roots, heart wood, seeds, and grains.
- ✓ Lignans are low molecular weight products, formed by the oxidative coupling of p hydroxy phenyl propene units, in which two units are linked by oxygen bridge.
- ✓ They are also found in resinous exudates of plants.
- ✓ Lignans are also optically active compounds.
- ✓ Flax seed is the richest source of plant lignans as compared to rye, buck wheat, millet soya and barley.

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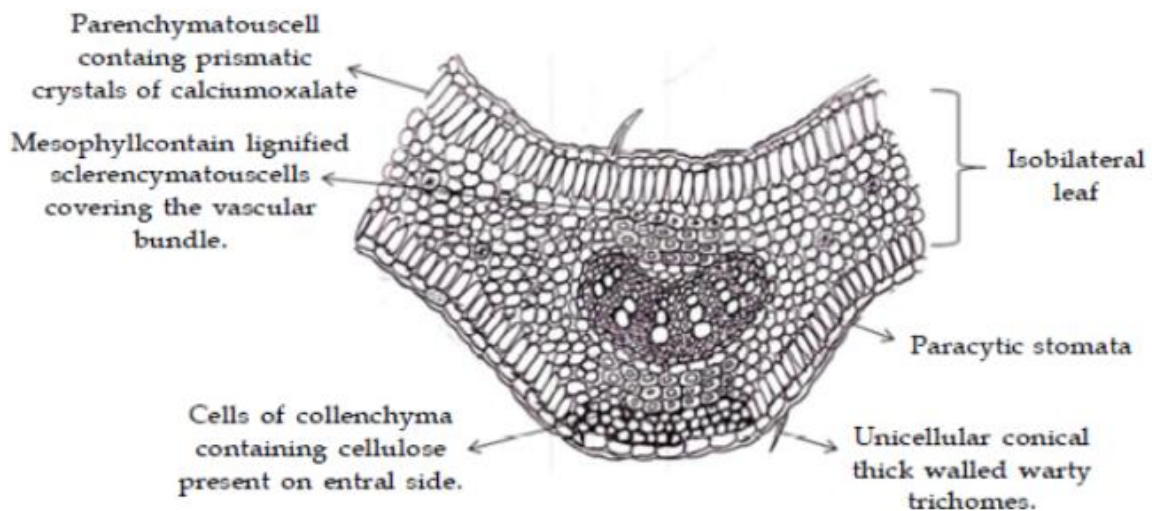
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Microscopy



T.S, of Sema leaflet

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Drug absorption through GIT: Transport models

LECTURE I
BY
T.M.RASALA
ASSISTANT PROFESSOR

Transport model : Permeability-Solubility charge state & The pH partition Hypothesis

Fick's first law applied to a membrane shows that passive diffusion of a solute is the product of the diffusivity and the concentration gradient of the solute inside the membrane. For an ionizable molecule to permeate by passive diffusion most efficiently, the molecule needs to be in its uncharged form at the membrane surface.

- Consider a vessel divided into two chambers, separated by a homogeneous lipid membrane. The left side is the donor compartment, where the sample molecules are first introduced; the right side is the acceptor compartment, which at the start has no sample molecules.


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FICK'S FIRST LAW OF DIFFUSION APPLIED TO DISSOLUTION

By Fick's first law of diffusion:

$$\text{Rate of Solution} = \frac{D \bullet A \bullet (C_s - C_b)}{h}$$

where D is the diffusion coefficient, A the surface area, C_s the solubility of the drug, C_b is the concentration of drug in the bulk solution, and h the thickness of the stagnant layer.

If C_b is much smaller than C_s then we have so-called "Sink Conditions"

FICK'S FIRST LAW - SINK CONDITIONS

$$\text{Rate of Solution} = \frac{D \bullet A \bullet C_s}{h}$$

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BIOEQUIVALENCE PROTOCOL

BY

T.M.RASALA

Assistant Professor

Pharmaceutics Department

Gurunanak college of pharmacy

Elements of Bioequivalence

Study Protocol

1. Title

- a. Principal investigator
- b. Project number and date

2. Study objective

3. Study design

- a. Design
- b. Drug Products
 - i. Test products(s)
 - ii. Reference product
- c. Dosage regimen
- d. Sample collection schedule


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2. Latin Square Design:

□ More than two formulations

Eg: A group of volunteers will receive formulations in the sequence.

Volunteer Number	Period 1	Period 2	Period 3
1	A	B	C
2	B	C	A
3	C	A	B

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RESEARCH PROPOSAL
BY
T.M.RASALA
ASSISTANT PROFESSOR
GNPC, NAGPUR

Type of Research study

- To gain familiarity with a phenomenon or to achieve new insights into it (**Exploratory or formulative** research studies)
- To describe accurately the characteristics of a particular individual, situation or a group (**Descriptive** research studies)
- To determine the frequency with which something occurs or with which it is associated with something else (**Diagnostic** research studies)
- To test a hypothesis of a causal relationship between variables (**Hypothesis-testing** research studies).

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Guidelines on Evaluation of Safety/Toxicity of Chemical substances

Subject: Biological Evaluation

M. Pharm Semester II

Nidhi Sapkal

Gurunanak College of Pharmacy, Nagpur

Organization of Economic Co-operation & Development (OECD)

No.	Title	Original Adoption	No. of Updates	Updates	Most Recently Updated
401	Acute Oral Toxicity	12 May 1981	1	24 February 1987	Date of Deletion: 17 December 2001
402	Acute Dermal Toxicity	12 May 1981	1		24 February 1987
403	Acute Inhalation Toxicity	12 May 1981	1		7 September 2009
404	Acute Dermal Irritation/Corrosion	12 May 1981	2	17 July 1992	24 April 2002
405	Acute Eye Irritation/Corrosion	12 May 1981	3	24 April 2002 24 February 1987	2 October 2012
406	Skin Sensitisation	12 May 1981	1		17 July 1992
407	Repeated Dose 28-Day Oral Toxicity Study in Rodents	12 May 1981	2	27 July 1995	3 October 2008
408	Repeated Dose 90-Day Oral Toxicity Study in Rodents	12 May 1981	1		21 September 1998
409	Repeated Dose 90-Day Oral Toxicity Study in Non-Rodents	12 May 1981	1		21 September 1998


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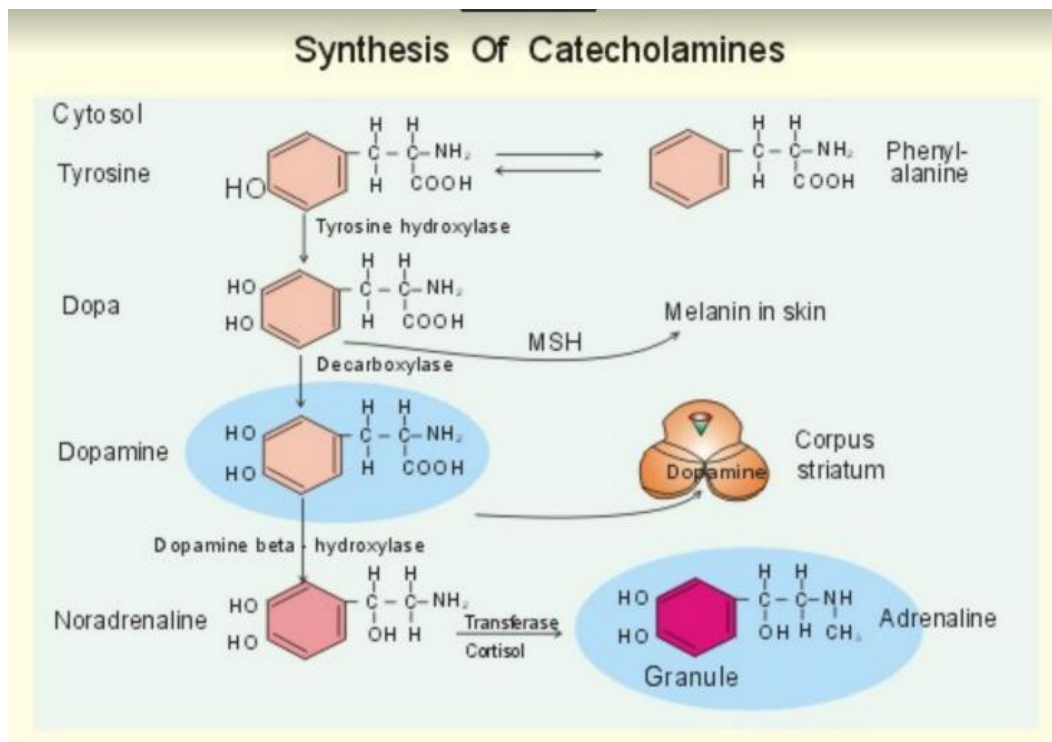
ADRENERGIC AGONISTS

SYMPATHOMIMETICS

Subject: Advanced Medicinal Chemistry
M. Pharm Semester I

Nidhi Sapkal

Gurunanak College of Pharmacy, Nagpur





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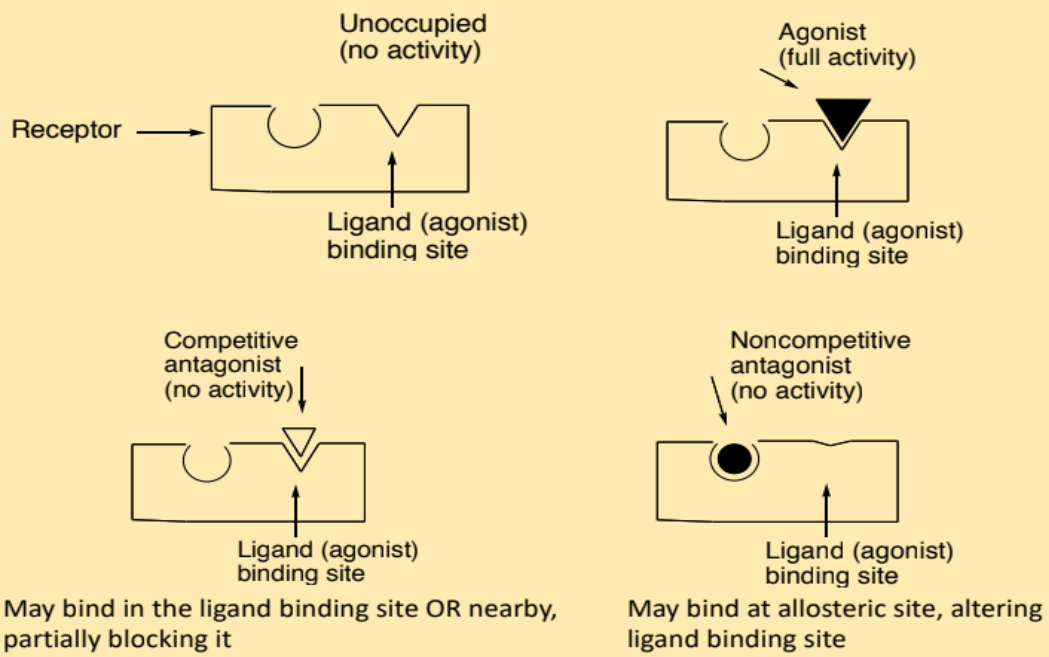
RADIOLIGAND BINDING ASSAY

Subject: Biological Evaluation
M. Pharm Semester II

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Occupancy Theory: Types of antagonists - one receptor



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ECOSYSTEM

B.Pharm Sem II
Environmental Sciences
Session 2018:19
Gurunanak College of Pharmacy, Nagpur
Prepared by: Shobha Ubgade

1

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Types

➤ Natural

1. Terrestrial ecosystems (grasslands, forests, desert ecosystems)



2. Aquatic ecosystem

a. Lentic (Stagnant water) like lake, ponds etc.

b. Lotic (Flowing water) like river, ocean, sea, etc.



➤ Artificial

1. A crop land, garden, aquarium, park, kitchen garden.

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National AIDS Control Programme

B.Pharm VIII Semester
Gurunanak College of Pharmacy, Nagpur
Prepared by: Shobha Ubgade
Session: 2020:21

HIV Human Immunodeficiency Virus / **AIDS** Acquired Immunodeficiency Syndrome

- HIV causes AIDS and interferes with the body's ability to fight infections.
- The virus can be transmitted through contact with infected blood, semen or vaginal fluids.
- Within a few weeks of HIV infection, flu-like symptoms such as fever, sore throat and fatigue can occur. Then the disease is usually asymptomatic until it progresses to AIDS. AIDS symptoms include weight loss, fever or night sweats, fatigue and recurrent infections.


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Osteoarthritis

Clinical Pharmacotherapeutics I

B.Pharm VI Semester

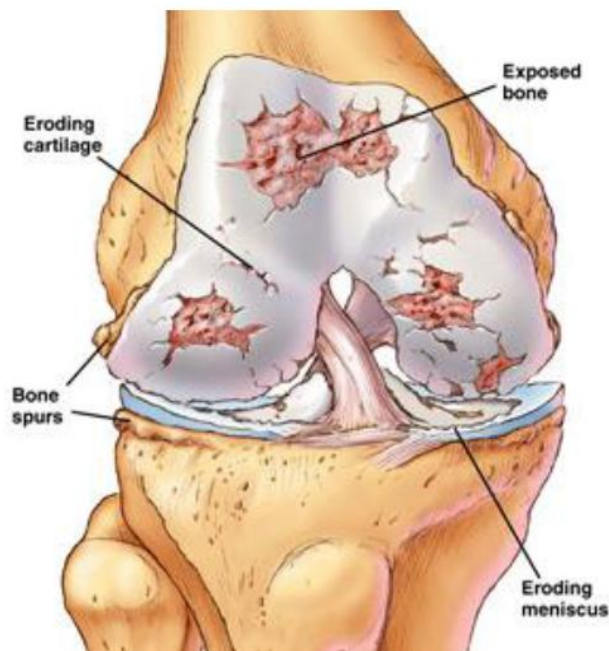
Session:2016:17

Gurunanak College of Pharmacy, Nagpur

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OA



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OA is a disease of joints that affects all of the weight-bearing components of the joint:

- Articular cartilage
- Menisci
- Bone

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INDIAN PATENT ACT 1970

By – Dr. V. A. Kilor

Subject- Regulatory Affairs and Intellectual property Rights

Class- B.Pharm SEM-V

Law and Regulations

- Patents Act, 1970
 - Amended in
 - 1999
 - 2002
 - 2005
- Patents Rules, 2003
 - Amended in
 - 2005
 - 2006


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Controlled Release Oral Drug Delivery System

By

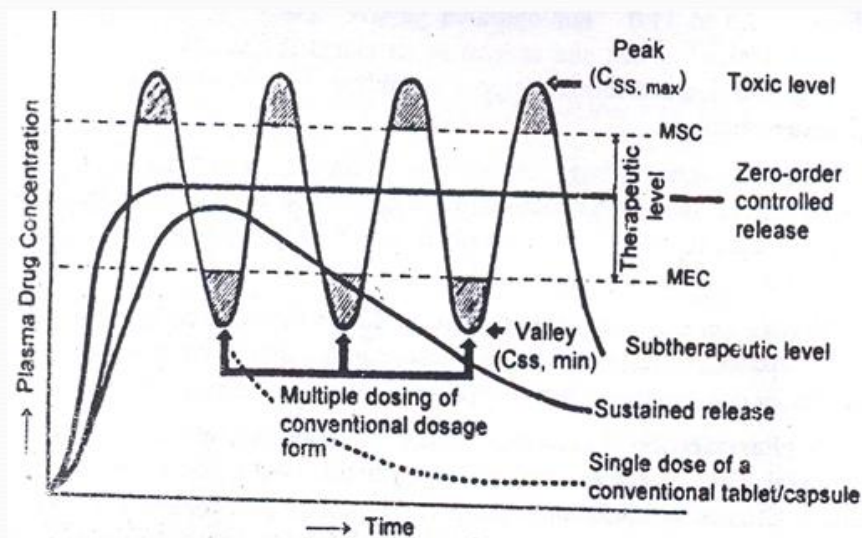
Keshav Moharir

Assistant professor

Gurunanak College of Pharmacy

Nagpur

Plasma-drug concentration time profile



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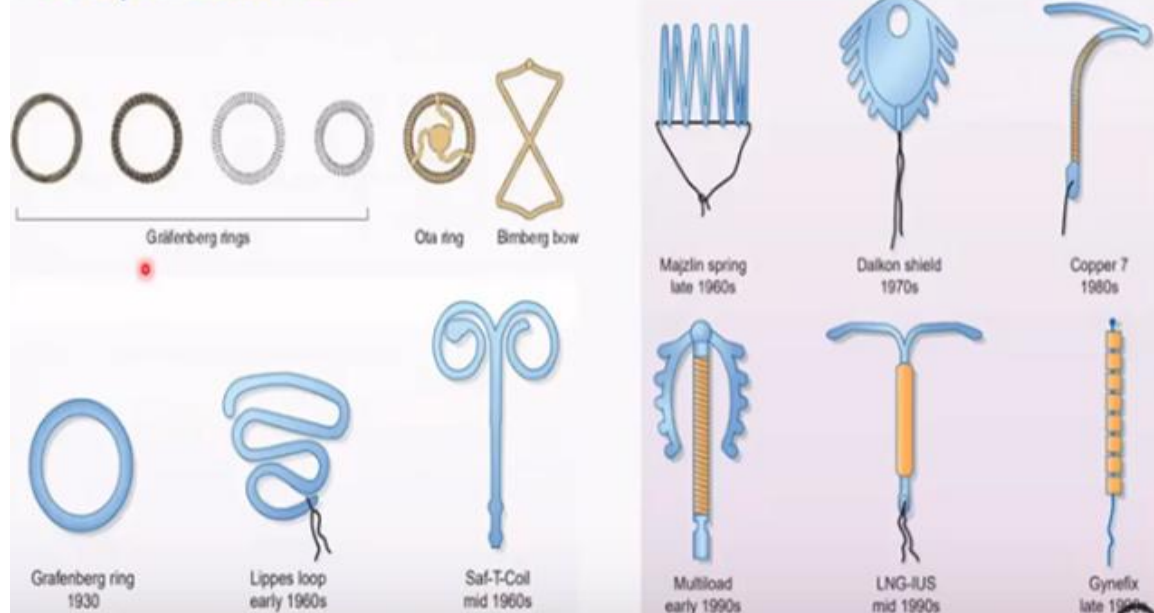
Intrauterine Drug Delivery Systems



Keshav S. Moharir
Assistant professor
Gurunank College
of Pharmacy

Introduction- Development of Intra Uterine Devices

Development of IUDs- 1920



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Combinatorial Chemistry

Session 2017-18

B. Pharm. VI Sem.

PMC-II

Ms. Pradnya Gondane

Assistant Professor

Gurunanak College of Pharmacy,
Nagpur



Combinatorial library

Def: Collection of finally synthesized compounds

Size: depends on the number of building blocks used per reaction and the number of reaction steps, in which a new building block is introduced

Typical: 10^2 up to 10^5 compounds

Random Libraries

- multiple libraries
- many targets
- highly diverse
- mixtures
- > 5,000 compounds
- solid phase synthesis
- non-purified compounds
- on bead screening, if possible

Focused or targeted Libraries

- Template- scaffold library
- one target
- high structural similarity
- single compounds
- << 5,000 compounds
- synthesis in solution, solid phase
- pure compounds
- screening in solution

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Recording Room for lectures



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e-Content developed by faculty and available on YouTube/ Slide share platform

Sr. No.	Topic	Year	link
Videos by Dr. G.K. Lohiya			
1.	Student Activity by Radha Kapgate and Atharv Tithe_	IIIrd sem	https://youtu.be/fLeRQXbaXPc
2.	Student Activity by Rutuja Sonwane and Urvashi Menghani	IIIrd sem	https://youtu.be/6MnuqjoC83A
3.	Student Activity by Asema Razi and Urvashi Menghani	IIIrd sem	https://youtu.be/dlFWxaZPA2Y
4.	Basics of Patent and How to do Patent search and	For	https://youtu.be/XnPA9wQSDsY

	download from USPTO, WIPO, EPO and Indian Patent	PG	
5.	Effective and efficient use of MS Word in Thesis Writing Part 1	For PG	https://youtu.be/VXdZyuiPzLI
6.	Effective and efficient use of MS Word in Thesis Writing Part 2	For PG	https://youtu.be/7QfjaRYXiw8


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7.	Part 1 of unit 1 Solubility of drugs Physical Pharmaceutics I by Dr Govind Lohiya	IIIrd sem	https://youtu.be/IVK13SgulhQ
8.	Part 2 of unit 1 solubility of drugs Physical Pharmaceutics Mechanism of solute solvent interaction	IIIrd sem	https://youtu.be/hScYS-LlaxM
9.	Part 3 of unit 1 solubility of drugs Physical Pharmaceutics Ideal Solubility parameters	IIIrd sem	https://youtu.be/BYeRr6M0wMU
10.	Part 4 of unit 1 solubility of drugs Solvation and Association Physical Pharmaceutics	IIIrd sem	https://youtu.be/hCWCMZp7qrg
11.	Part 5 of unit 1 solubility of drugs Factors affecting solubility of drugs Physical Pharmaceutic	IIIrd sem	https://youtu.be/RE-jXfa_gzM
12.	How to measure surface tension of liquid at home with homemade stalagmometer?	IIIrd sem	https://youtu.be/ndVxentXsQU


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13.	Part 6 of unit 1, Diffusion principles in biological, Solubility of drugs Physical Pharmaceutics I	IIIrd sem	https://youtu.be/i-Tl0EbUGkk
14.	Part 7 of unit 1 solubility of gas in liquid , Solubility of drugs Physical Pharmaceutics I	IIIrd sem	https://youtu.be/qZTNwDLAsl4
15.	Part 8-Unit 1 Solubility of drugs: solubility of liquid in liquid, Raoult's law, Ideal solution PP-I	IIIrd sem	https://youtu.be/9FGkYwQFuWU
16.	Part 9 of unit 1: Solubility of Drugs PP-I: Partial miscibility with Phenol water system	IIIrd sem	https://youtu.be/Yd8eAGFLuvq
17.	Part 10 of unit 1 Solubility of Drugs of PP I: Nernst's Distribution law or Distribution coefficient	IIIrd sem	https://youtu.be/BGqyD6sEY4E
18.	Chemical Kinetics Part-1_ Dr G K Lohiya	IVth Sem	https://www.youtube.com/watch?v=TsfOjPi5qbQ&list=PLRgh1O_4tPGd33muBaFpWN8mNJsGMkKfj&index=2&t=4s
19.	Chemical Kinetics Part 2 Dr G K Lohiya	IVth Sem	https://www.youtube.com/watch?v=170QobDhq6A&list=PLRgh1O_4tPGd33muBaFpWN8mNJsGMkKfj&index=7

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20.	Chemical Kinetics Part 3 Dr G K Lohiya	IVth Sem	https://www.youtube.com/watch?v=emtKLVHTrcA&list=PLRgh1O_4tPGd33muBaFpWN8mNJsGMkKFj&index=2
21.	Chemical Kinetics Part 4 Dr G K Lohiya	IVth Sem	https://www.youtube.com/watch?v=170QobDhq6A&list=PLRgh1O_4tPGd33muBaFpWN8mNJsGMkKFj&index=7
22.	Chemical Kinetics Part 5 Dr G K Lohiya	IVth Sem	https://www.youtube.com/watch?v=EOV12J-B-Bo&list=PLRgh1O_4tPGd33muBaFpWN8mNJsGMkKFj&index=9
23.	Chemical Kinetics Part 6 Dr G K Lohiya	IVth Sem	https://www.youtube.com/watch?v=jXpkafBqS4s&list=PLRgh1O_4tPGd33muBaFpWN8mNJsGMkKFj&index=8

24.	Chemical Kinetics Part 7 Dr G K Lohiya	IVth Sem	https://www.youtube.com/watch?v=Px_LG0ozT4E&list=PLRgh1O_4tPGd33muBaFpWN8mNJsGMkKFj&index=4
25.	Chemical Kinetics Part 8 Dr G K Lohiya Physical and chemical factors influencing the chemical degra	IVth Sem	https://www.youtube.com/watch?v=aJYBdKBJelY&list=PLRgh1O_4tPGd33muBaFpWN8mNJsGMkKFj&index=5
26.	Chemical Kinetics Part 9 Dr G K Lohiya Physical and chemical factors influencing the chemical degr	IVth Sem	https://www.youtube.com/watch?v=5HaolJFgywE&list=PLRgh1O_4tPGd33muBaFpWN8mNJsGMkKFj&index=6
27.	Stability Testing Q1AR2 Part 1_Dr. Govind K. Lohiya	Vith Sem	https://www.youtube.com/watch?v=H45rjILfZ-Q&list=PLRgh1O_4tPGc2fCC4LREQ_iVAllyJ4Wr8&index=8


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28.	Stability Tersting Q1AR2 Part 2_Dr. Govind K. Lohiya	Vlth Sem	https://www.youtube.com/watch?v=ug2yce5lM28&list=PLRgh1O_4tPGc2fCC4LREQ_iVAllyJ4Wr8&index=7
29.	Stability Tersting Q1AR2 Part 3 Dr G K Lohiya	Vlth Sem	https://www.youtube.com/watch?v=bU39XnSC6Cg&list=PLRgh1O_4tPGc2fCC4LREQ_iVAllyJ4Wr8&index=6
30.	Photo Stability Testing Q1B Dr G K Lohiya	Vlth Sem	https://www.youtube.com/watch?v=6xtlS5nU5U0&list=PLRgh1O_4tPGc2fCC4LREQ_iVAllyJ4Wr8&index=5
31.	Stability Tersting Q1D Part 1 Dr G K Lohiya Bracketing and Matrixing Design	Vlth Sem	https://www.youtube.com/watch?v=eHUqFwnrH_o&list=PLRgh1O_4tPGc2fCC4LREQ_iVAllyJ4Wr8&index=2
32.	Stability Tersting Q1D Part 2 Dr G K Lohiya Bracketing and Matrixing Design	Vlth Sem	https://www.youtube.com/watch?v=TDNx1a-JtKc&list=PLRgh1O_4tPGc2fCC4LREQ_iVAllyJ4Wr8&index=1
34.	NABL Part 2 Dr G K Lohiya National Accreditation Board of Testing and Calibration Laboratories	Vlth Sem	https://www.youtube.com/watch?v=dsc2SqFhURE&list=PLRgh1O_4tPGc2fCC4LREQ_iVAllyJ4Wr8&index=3
35.	How to Use Google class room to submit assignments?	Online content	https://www.youtube.com/watch?v=IIWrAm8v7Yc&list=PLRgh1O_4tPGcMHPEpV8hZ5Ak1ZK1ptlme
36.	Google Classroom Assignment rubrics creations and study material	Online content	https://www.youtube.com/watch?v=Vdnr-Db6au0&list=PLRgh1O_4tPGcMHPEpV8hZ5Ak1ZK1ptlme&index=3

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37.	How to Create Google Forms MCQ Assignment through Google Classroom and Google Form?	Online content	https://www.youtube.com/watch?v=7C4FxbpPru8&list=PLRgh1O_4tPGcMHPEpV8hZ5Ak1ZK1pt1me&index=4
38.	How to conduct Online Exam through google classroom ?	Online content	https://www.youtube.com/watch?v=ayNBC1R8ssc&list=PLRgh1O_4tPGcMHPEpV8hZ5Ak1ZK1pt1me&index=5
39.	How to use Google classroom App on mobile? A video Guide for the Teachers	Online content	https://www.youtube.com/watch?v=cVDaGM4RZ-o&list=PLRgh1O_4tPGcMHPEpV8hZ5Ak1ZK1pt1me&index=6
40.	Tribute to Corona Warriors from Dr Govind K Lohiya Nagpur	Social Awareness	https://www.youtube.com/watch?v=4CruI6zfHqE&list=PLRgh1O_4tPGcMHPEpV8hZ5Ak1ZK1pt1me&index=2
41.	Part 1 UNIT V PP I pH, buffers and Isotonic solutions Sorenson pH Scale	IIIrd sem	https://youtu.be/VqCsQMwfB0s
42.	Part 2 UNIT V PP I pH, buffers and Isotonic solutions Measurement of pH Electrometric & colorimetric	IIIrd sem	https://youtu.be/IPQeSQNwupE
43.	Part 3 UNIT-V, PP-I: pH, buffers and Isotonic solutions Buffer equation, Henderson Hasselbalch eq	IIIrd sem	https://youtu.be/vizz5FzDBb4


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44.	Part 4 UNIT V PP I pH, buffers and Isotonic solutions Application of buffers in Pharmacy PP-I	IIIrd sem	https://youtu.be/mgl66Wu_V5M
45.	Part 5 UNIT V PP I pH, buffers and Isotonic solutions Buffer capacity and maximum buffer capacity, P	IIIrd sem	https://youtu.be/bNTZmNPzk8c
46.	Part 6 UNIT V PP I pH, buffers and Isotonic solutions: Buffer in pharmaceutical and biological system	IIIrd sem	https://youtu.be/T6k2aoGSoLA
47.	Part 1: UNIT II of PP I : Physicochemical properties of the drug molecules: Optical rotation	IIIrd sem	https://youtu.be/v5Pj5lK9D_0
48.	Part 2 UNIT II PP I Physicochemical properties of the drug molecules Refractive Index	IIIrd sem	https://youtu.be/vSImj8w8hOc
Videos by Dr. S. K. Arora			
49.	How to use Mendeley- Reference Management Software	For PG	https://www.youtube.com/watch?v=5u-ugS3FZsE


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50.	How to Check Plagiarism?	For PG	https://www.youtube.com/watch?v=w4VtxmpGQQ4
51.	How to Reduce Plagiarism?	For PG	https://www.youtube.com/watch?v=EyqV1ybrb74
52.	Pharmacognosy of Senna leaflet	IVth Sem	https://www.youtube.com/watch?v=GvFJ72Zub8k
53.	Pharmacognosy of Digitalis	IVth Sem	https://www.youtube.com/watch?v=svzGWGimY_k
54.	Pharmacognosy of Clove Buds	IVth Sem	https://www.youtube.com/watch?v=vjipbugd8nU
55.	Pharmacognosy of Cinnamon	IVth Sem	https://www.youtube.com/watch?v=iZqgMp_oLCc
56.	Pharmacognosy of Rauwolfia	IVth Sem	https://www.youtube.com/watch?v=gEfQUA0zwkU
57.	Pharmacognosy of Opium	IVth Sem	https://www.youtube.com/watch?v=JKoH7Xb-ZZA&t=2s
58.	Pharmacognosy of Belladonna	IVth Sem	https://www.youtube.com/watch?v=37fM-dvZess&t=2s
59.	Pharmacognosy of Ginger	IVth Sem	https://www.youtube.com/watch?v=II7A3U5GBkg
60.	Pharmacognosy of Fennel	IVth Sem	https://www.youtube.com/watch?v=Ki0GJLRvWmQ

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61.	Pharmacognosy of Vinca	IVth Sem	https://www.youtube.com/watch?v=BvQQ9EDzgSw
62.	Pharmacognosy of Coriander	IVth Sem	https://www.youtube.com/watch?v=TI3Sz_i5X9A
63.	Pharmacognosy of Liquorice	IVth Sem	https://www.youtube.com/watch?v=VY0xCAVJBRk
64.	Pharmacognosy of Asafoetida	IVth Sem	https://www.youtube.com/watch?v=g2UEyRbTdf8
65.	Pharmacognosy of Aloe	IVth Sem	https://www.youtube.com/watch?v=WVUgNgI0Ekw
66.	Pharmacognosy of Bitter Almond	IVth Sem	https://www.youtube.com/watch?v=eYY_IHvFBCE
67.	Mentha	IVth Sem	https://www.youtube.com/watch?v=E00enk9bYGI
68.	Pterocarpus	IVth Sem	https://www.youtube.com/watch?v=XU4jVVj3SDw
69.	Dioscorea	IVth Sem	https://www.youtube.com/watch?v=6r2DPJX7JWM
70.	Catechu	IVth Sem	https://www.youtube.com/watch?v=qw8p_FqcmAE
71.	Myrrh	IVth Sem	https://www.youtube.com/watch?v=f-dQZoqBnoI
72.	Colophony	IVth Sem	https://www.youtube.com/watch?v=G6apHYohYdg


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73.	Guggul	IVth Sem	https://www.youtube.com/watch?v=dRdLFTy7Zs0
74.	Benzoin	IVth Sem	https://www.youtube.com/watch?v=7p296M1UGDk
75.	Phenylpropanoids and Flavonoids	IVth Sem	https://www.youtube.com/watch?v=jjKNyFBFAYk
76.	Iridoids and Naphthquinones	IVth Sem	https://www.youtube.com/watch?v=O9yYA6MRHNc&t=18s
Videos by Dr. S. R. Yende			
77.	Preclinical Experimentation: An overview	PG	https://youtu.be/9Sokg3gAHOs
78.	Approval of Preclinical Experimental Protocol	PG	https://www.youtube.com/watch?v=_r7Ff9aT7nQ
79.	Drug Discovery and Development	IV sem	https://www.youtube.com/watch?v=RBVDyWNHfNQ
Slide share content by Dr. S. R. Yende			
80.	Mechanism of inflammation		https://www.slideshare.net/SubhashR10
81.	Preclinical experimentation: An overview	VII sem	https://www.slideshare.net/SubhashR10
82.	Commonly used Laboratory Animals	VII sem	https://www.slideshare.net/SubhashR10
83.	Hospitals and its organization	VII sem	https://www.slideshare.net/SubhashR10
84.	Drug distribution system in Hospital	VII sem	https://www.slideshare.net/SubhashR10
85.	Adverse drug reaction	VII sem	https://www.slideshare.net/SubhashR10
86.	Hospital Formulary	VII sem	https://www.slideshare.net/SubhashR10
87.	Therapeutic Drug Monitoring	VII sem	https://www.slideshare.net/SubhashR10


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88.	Medication adherence	VII sem	https://www.slideshare.net/SubhashR10
89.	Patients medication history interview	VII sem	https://www.slideshare.net/SubhashR10
90.	Community Pharmacy	VII sem	https://www.slideshare.net/SubhashR10
91.	Community Pharmacy Management	VII sem	https://www.slideshare.net/SubhashR10

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ICT Techniques:

Gurunanak College of Pharmacy, Nagpur **FLIPPED CLASSROOM ACTIVITY CONSTRUCTOR**

Subject:- Pharmaceutical Organic Chemistry-II

Topic Write structure and uses of Naphthalene, anthracene, phenanthrene, diphenylmethane, triphenylmethane and their derivatives.

Target Group : B.Pharm III Semester students

Contents:

1. Out-of-Class activity Design
2. In-the-Class activity Design
3. End of the class with summation

1. Out-of-class Activity Design

Learning objectives of the Out of class activity


- a. To get acquainted with the structures and uses of Naphthalene, anthracene, phenanthrene, diphenylmethane, triphenylmethane and their derivatives
- b. To be ready with their own PDF file of above mentioned topic.

Uploaded Video URL :

<https://www.youtube.com/watch?v=DEtISyvPQ6Y>

Duration of Screen cast: 10:17 min

Aligning Assessment with Learning Objective:


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The Sikh Education Society's

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Learning Objectives	Assessment Strategy	Expected duration	Additional Instructions (if any)
To get acquainted with the structures and uses of Naphthalene, anthracene, phenanthrene, diphenylmethane, triphenylmethane and their derivatives	On the basic of PDF file prepared from material collected from internet and YouTube	At least one week	If needed find other material related to the topic from Google as well as YouTube
	Remember structure,		
	its IUPAC name, its preparation and uses efficiently		

2. In-Class Activity Design

Learning objectives

- Understanding of the topic with the help of e-Content using web as well as videos.
- Remember structure, its IUPAC name, its preparation and uses efficiently.
- Explaining it properly to their peers.

Peer Instructions: (15 minutes)


Students are asked to be ready with their PDF file.

What Instructor does: Read PDF files, Poses Question, Let student pair and discuss, ask them to decide who will explain the topic and finally summarizes the topic.

What student does: Vote for question, Discuss with neighbor, Come to agreement, Listens to summary by instructor.

3. Assessment of the activity and end of the class with summation

Assessment (10 minutes): The best answer in the PDF file by student was selected by teacher. The excellent prepared PDF file was acknowledged and encouraged for the further participation.


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**FLIPPED CLASSROOM
ACTIVITY**

CONDUCTOR

Gurunanak College of Pharmacy, Nagpur

CC BY SA

**Topic: Effective Use of MS Office in
Pharmaceutical Sciences**

Pharmaceutical Sciences

Target Group : **B.Pharm** and
M.Pharm students

Contents:

**Out-of-Class
activity
Design**

**In-the-Class
activity**

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Out-of-class Activity

Learning objectives of the Out of class activity



To get acquainted with the various terminology used in the MS-Word.

Out-of-class Activity

Uploaded Video URL :

Moodle Site : <https://gncpict.moodlecloud.com/>

License of Video : 

Duration of Screen cast : 10:17 min

* Ensure that you give a Creative-Commons License to the uploaded video

Out-of-class Activity

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Assessment of the activity and end of

Assessment (10 minutes): The rightly placed headings are considered as the rankers participants and the participants can correct the headings of the colleagues are also rankers. The excellent prepared MS-Word draft can acknowledged and encouraged for the further participation

The overall constructors prepare students for effectively creating the MS-Word Draft for their projects and thesis with reference to auto indexing.

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Gurunanak College of Pharmacy, Nagpur 19th June 2021

Instructor Resources

Resource – <i>Think-Pair-Create-Share Activity constructor</i>	June
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Domain:
Pharmacy
Topic:
Emulsion

Target: B. Pharm IV Semester Students (in the view of the COVID-19 situation the activity designed the experimentation part which can be performed at home)

Learning objectives:

To know about the emulsion definition and contents of emulsion formulation. To know about the surface tension and concept of surfactant.

To learn about available emulsion formulation (edible) and their properties (physical).

Think phase:

<ol style="list-style-type: none">1. What are the different factors to be considered during emulsion formulation?2. In home do we have some edible emulsion formulation available (Like mayonnaise)?3. Can we formulate this (home available emulsion formulation) with modification like some flavor addition and some colour change? YES/NO4. What is the need of market? Can we fulfill the need by doing modification existing formulation? YES/NO	Duration 12 hrs Today night up to 10:00pm
Students to think and search about it and write an individual answer.	
Deliverable from this Phase: Students will know about different emulsion concept and parameters to be consider for emulsion formulation, problem analysis.	

Pair phase:


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By today evening after 10pm individual student can post the answer in our college whatsapp group about home available edible emulsion formulation. Whether it is possible to formulate this at home or not? Those having similar formulation answer and suitability can be included in one group	Duration 10 min only (to post the answers in group)
Make a group of 5-6 students to discuss about the further practical consideration part.	
Students need to do: Pairs up with classmate, check other person answers and discuss your answers with other person in your group and note down it in individual notebook.	
Deliverable from this Phase: Students can link between formulation consideration about emulsion and stability parameters.	

Create phase:

Those groups having YES answer in above think phase Q. 3 can now design a concept paper. (group activity divide your task as per suitability)	Duration 12 hrs Sunday
--	------------------------------

<ol style="list-style-type: none">1. Title of your project (Must be like a brand name which you would like to give your product)2. Requirements:3. Procurement: (Vendor qualification)4. Detailed procedure and what modification you are going to make with reason.5. Prepare check list before experimental setup.6. Start the preparation step by step and record IPQC (in process quality control) if any applicable at home. (not necessary to use sophisticated lab instrument whatever available at home you can use)7. Like optical measurement with I phone having zoom gadget can be used for texture and globule size analysis.8. Fill into final container and prepare a label comparable to already available marketed formulation.	morning 9:00 am to 9:00pm
Students can link between theoretical and practical aspect, market search, product design and even some marketing aspect.	


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Share phase

<p>Be ready with presentation and one presenter from your group. Consider this as opportunity and you are going to present your work in front of investor (who are willing to invest in this project and only one project will be selected from entire students groups of our class). Present your work only in 3 minute (no extra second will be provided above three minute). Presentation include Title, Group member, Mentor name, Procedure, Modification, advantages or reason to modify existing formulation, Proposed retail price (MRP) and cost to company. Also give the profit margin per 100 unit sell.</p>	<p>Duration :Tuesday morning (up to 9:10 am) We will go with presentation in our lecture timing</p>
<p>Deliverable from this Phase: This is the most critical phase at it deals with investor, presentation skills, market search and market potential.</p>	

Result of the activity:


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*Choose a product that supports
your wellness & helps you feel GORGEOUS!*



FOR EACH 30ML :

INGREDIENTS	QUANTITY	BENEFITS
1. Aloe vera gel	19 ml	Cooling properties, anti-inflammatory properties, provides moisture, heals and reduces blemishes.
2. Glycerine	4ml	Humectant and a best natural preservative.
3. Almond oil	3ml	Rich in vitamin E.
4. Tea tree oil	1ml	Prevents skin infections, acne.
5. Rose water	2ml	Anti-bacterial properties and gives a sweet natural odour.
6. Beet root juice	1ml	Lightens the skin, rich in vitamins and gives a beautiful colour and texture to the product.

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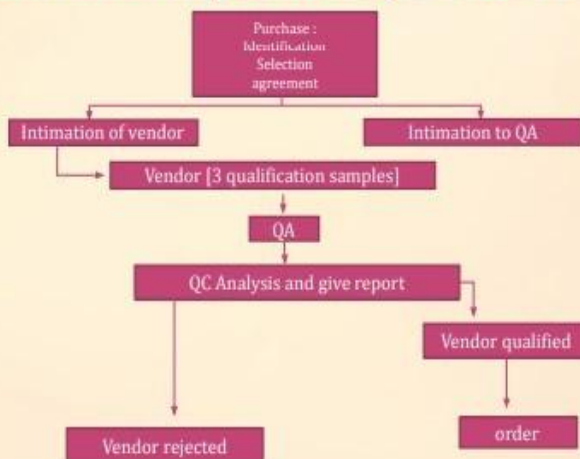
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DESCRIPTION

- Aloe serum, with the power of aloe vera and tea tree oil, helps you achieve a radiant glow, reduce acne and gives immense nourishment to the face.
- The face serum is free from harmful chemicals such as parabens, silicones, etc. It is a pure natural product prepared with beauty of nature.
- **How to use :**
- Take a little amount of serum on your fingertip.
- Gently apply all over the face and neck and massage in a upward circular motion until completely absorbed.
- For the best results, apply twice a day.

PROCUREMENT [VENDOR QUALIFICATION]



PROCEDURE

1. Take the below ingredients

ALOEVERA GEL [19ML]

GLYCERINE [4ML]

ALMOND OIL [3ML]

ROSE WATER [2ML]

TEA TREE OIL [1ML]

BEEET ROOT JUICE [1ML]



2. In a bowl mix all the above ingredient and with the help of grinder machine prepare an emulsion.

MODIFICATION

- What is modified?
- A standard natural aloe vera gel is modified into an aloe serum [emulsion].
- Reason : [advantages]
- To enhance its properties
- Adding almond oil make it rich in vitamin E
- Adding rose water and tea tree oil make it anti-bacterial, help in preventing skin infection and also give odour to the product.

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COST TO THE COMPANY

FOR EACH 30 ML:

Ingredients	Qty	Cost
Aloevera gel	19ml	24.7/-
Glycerine	4ml	4.5/-
Almond oil	3ml	12.75/-
Rose water	2ml	6/-
Tea tree oil	1ml	23.32/-
Beet root juice	1ml	1.0/-
Total	30ml	72.27/-

RETAIL PRICE:

Total Manufacturing Cost	76.02₹ 51.02% (manufacturing cost - 72.27₹ + labour, electricity, package, storage and others - 3.75₹)
Profit	31.26₹ 20.79%
GST	41.72₹ 28%
Maximum Retail Price	149/-
For 100 products	100 x 31.26
Profit	3,126/-

Thank You!

Committee
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Use of Software for animal experimentation

Pharmacology laboratory uses licensed software for demonstration of practicals



BUREAU FOR HEALTH & EDUCATION
STATUS UPLIFEMENT
(Constitutionally Entitled As- Health Education Bureau)
Address: 55/20, Rajat Path, Mansarovar,
Jaipur, Rajasthan, Pin:302020

Contact: 0141-2783681, 9636348191
Mail: serviceheb@gmail.com, support@heb-nic.in
Website: www.heb-nic.in

Proforma Invoice/Quotation

Date: 14/01/2020
Proforma Invoice/Quotation No.: 241/2020
GST Reg. No: 08AJAPA7570128
Category: Institution

Billing Address	Office Address
Gurunanak College of Pharmacy, Nari, Kamptee Road, Nagpur, 440026, Maharashtra.	Gurunanak College of Pharmacy, Nari, Kamptee Road, Nagpur, 440026, Maharashtra.

Quantity	Description (Subscription)	Duration	Unit price	Discount	GST	Total
1.	Experimental Pharmacology Series (Ex-Pharm Series) Software	3 Years	25,040 ₹ (Full Pack- For all active modules)	2,504 ₹	4,056 ₹	26,592 ₹
Sub Total						26,592 ₹
Remarks						-
Total Due						26,592 ₹

All Demand Draft & Cheque should be in favor of "Health Education Bureau" Payable at Jaipur, Rajasthan

Final invoice will be issued at the completion of payment.

Remit payment in INR to Following Account Details:

Account Name: Health Education Bureau,
Bank: UCO Bank
Branch: Mansarovar, Jaipur, Rajasthan
Account No. 20960210003121,
IFSC Code: UCBA0002096
Address: 55/20, Rajat Path, Mansarovar, Jaipur, Rajasthan (India), PIN-302020

*The subscription price covers delivery charges also.



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Bureau for Health and Education Status Upliftment

(Constitutionally Entitled as Health-Education, Bureau)

55/20, Rajat Path, Mansarovar, Jaipur

Rajasthan, Pin : 302020

Contact : Basic : 0141-2783681, Mob. : 8690723563

Mail : support@heb-nic.in, serviceheb@gmail.com

Website : www.heb-nic.in



Date: 12/01/2020

Ref. No: HEB/EPS/2020/7133

To
The Principal,
Guru Nanak College of Pharmacy,
Khasra No. 81/1, Mauza Nari, Near Dixit Nagar
Behind C. P. Foundary, Kumptee Road, Nagpur - 440 026

Subject: Confirmation of subscription

Dear Sir,

In response to subscription request and subscription amount received from you, we are here by sending you the dedicated password of Experimental Pharmacology Series (Ex-Pharm Series) Software and the invoice (attached with letter).

We hereby confirm your subscription of Experimental Pharmacology Series (Ex-Pharm Series) Software from Feb-20 to Jan-23 (3 Years).

To view Experimental Pharmacology Series (Ex-Pharm Series) Software, please enter the password in below mentioned link

Link: <http://heb-nic.in/Ex-Pharm/login.php>

You will be receiving further communications time to time also.

Thanking you

Director
Digital Service Division

Enclosed:

- ◆ The Invoice
- ◆ User Manual

Principal

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Virtual Lab Ex-Pharm Series Software

Welcome! Guru Nanak College of Pharmacy, Nagpur

Experimental Pharmacology Series

*	Study of muscle relaxant activity with the help of "Rota-Rod Apparatus"	
*	Study of cns depressants & stimulants using "actophotometer".	
*	Study of analgesic activity with the help of "tail flick apparatus".	
*	Study of antihistaminic drugs with the help of histamin chamber.	
*	Study of analgesic activity with the help of "hot plate apparatus".	
*	Study of drugs acting on cns using "elevated plus maze".	
*	Study of anticonvulsant activity using "electro convulsimeter".	
*	Experiment on effects of various drugs on rabbit's eye.	

Virtual Lab Ex-Pharm Series/Ex-Physio Series Software

Welcome! Guru Nanak College of Pharmacy, Nagpur

Study of muscle relaxant activity with the help of "Rota-Rod Apparatus"

[Rota Rod](#)

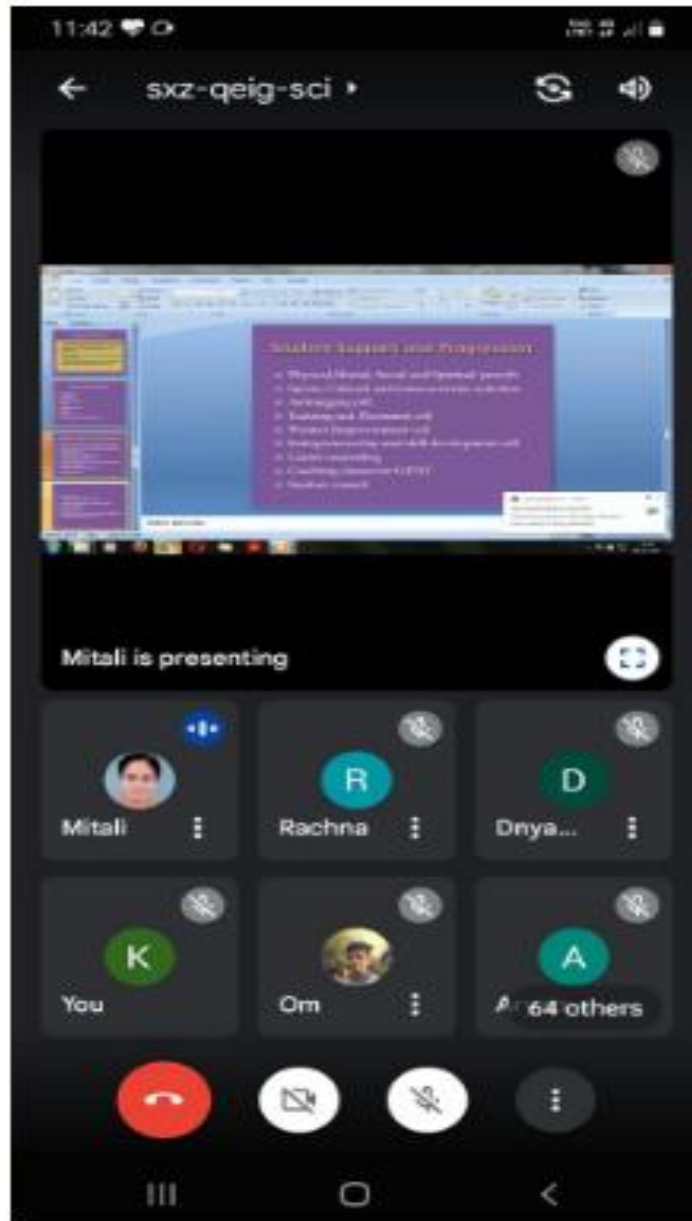
[Rota rod Virtual Practice](#)

To Start Experiment Click Here

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Google classroom based exam and classes



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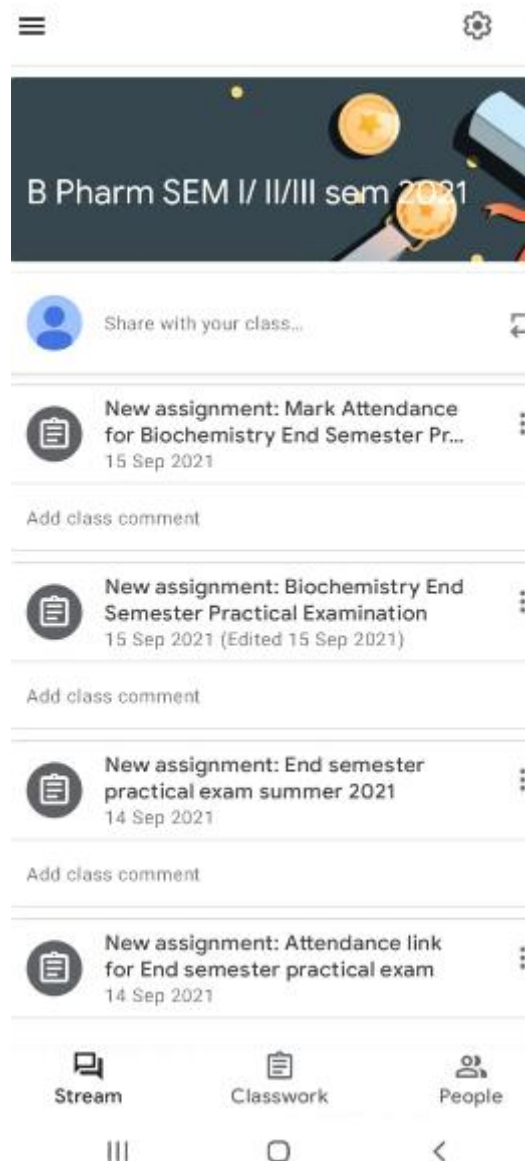
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7th SEMESTER B.Pharm NDDS

Share with your class...

Keshav Moharir
1 Dec 2021

Dear students, Go through the following link describing basics of Implantable Drug Delivery Systems
<https://www.slideshare.net/pareshbharodiya/implantable-drug-delivery-system>

Add class comment

Keshav Moharir
13 May 2021 (Edited 20 Nov 2021)

This will be our permanent Google Meet link for joining QA class.

To join the meeting on Google Meet, click this link:
<https://meet.google.com/dfj-pnxs-afn>

Stream Classwork People

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Director, Teacher Experience

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3/15/22, 2:44 PM

Gmail - Regarding you tube videos for physical pharmacy subject



Dr. Govind K. Lohiya <lohiyagovind@gmail.com>

Regarding you tube videos for physical pharmacy subject

2 messages

Preeti Kulkarni <preeti.qara@gmail.com>
To: lohiyagovind@gmail.com

Mon, Aug 30, 2021 at 11:06 AM

Dear Dr. Lohiya,

I want to heartily congratulate you for posting the videos of physical pharmacy I subject.

I have immensely benefited from these videos since I am taking this subject for the first time and preparation of lectures becomes easy.

You have put lot of efforts to make this subject interesting in every way.

Mix of English and Hindi language gives a better understanding of the concepts to the students.

I am sure the students will get the best of concept understanding and preparation of the subject with exam point of view.

I would appreciate if you could send me all the videos on my mobile.

Well done Dr. and keep this good work going.

Have a good day ahead.

Regards,

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