



ST. WILFRED'S INSTITUTE OF PHARMACY

Affiliated to the Mumbai University & Approved by AICTE New Delhi, DTE Maharashtra (DTE)

Near Shedung Toll Plaza, Old Mumbai-Pune Highway, Panvel, Dist. Raigad, Maharashtra - 410221

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2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences and teachers use ICT- enabled tools including online resources for effective teaching and learning process



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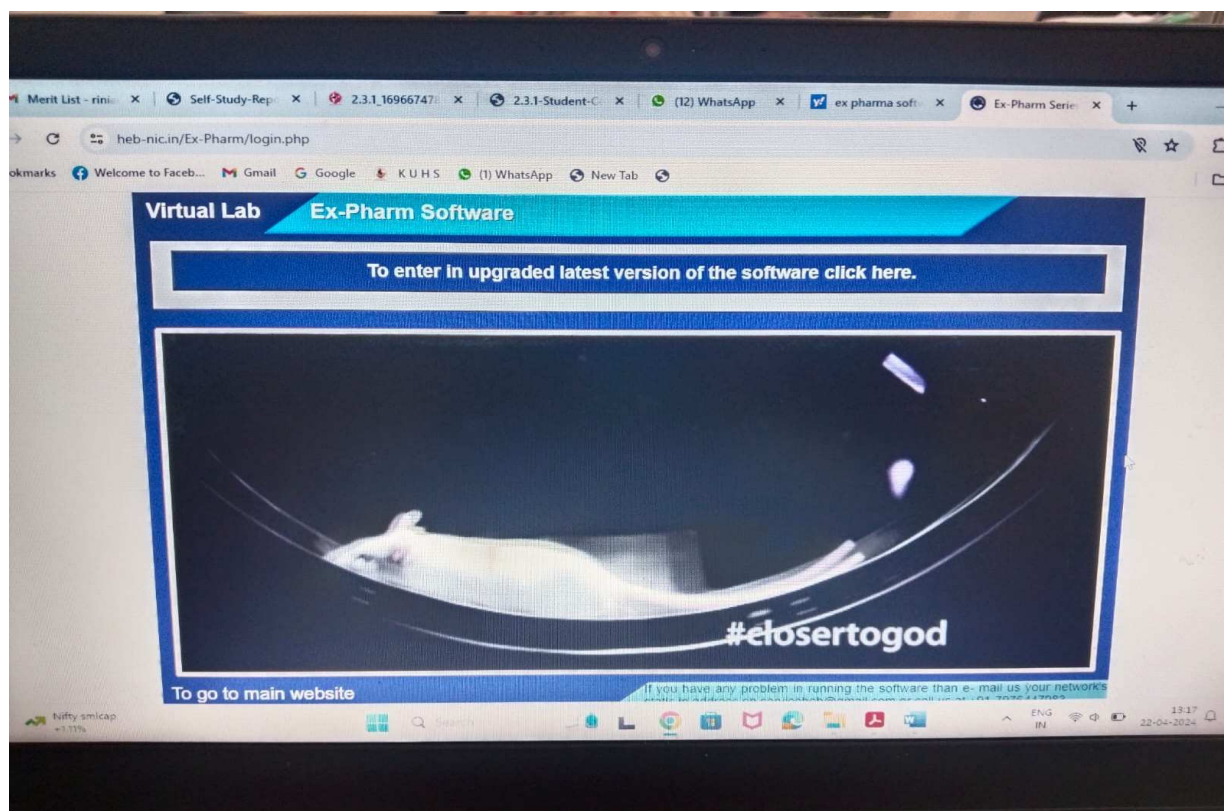
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PHARMACOLOGY SOFTWARE FOR EXPERIMENTAL LEARNING – EX-PHARMA



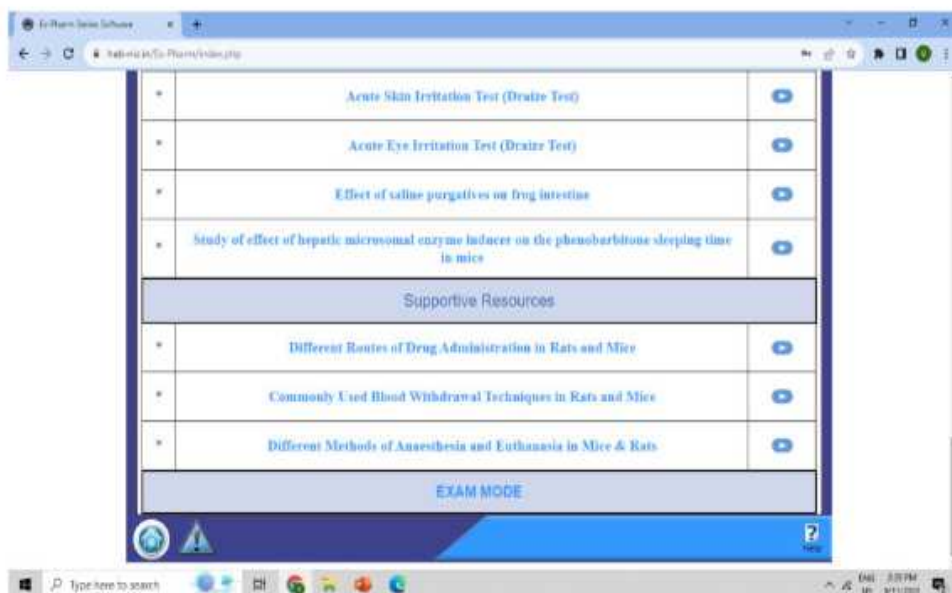
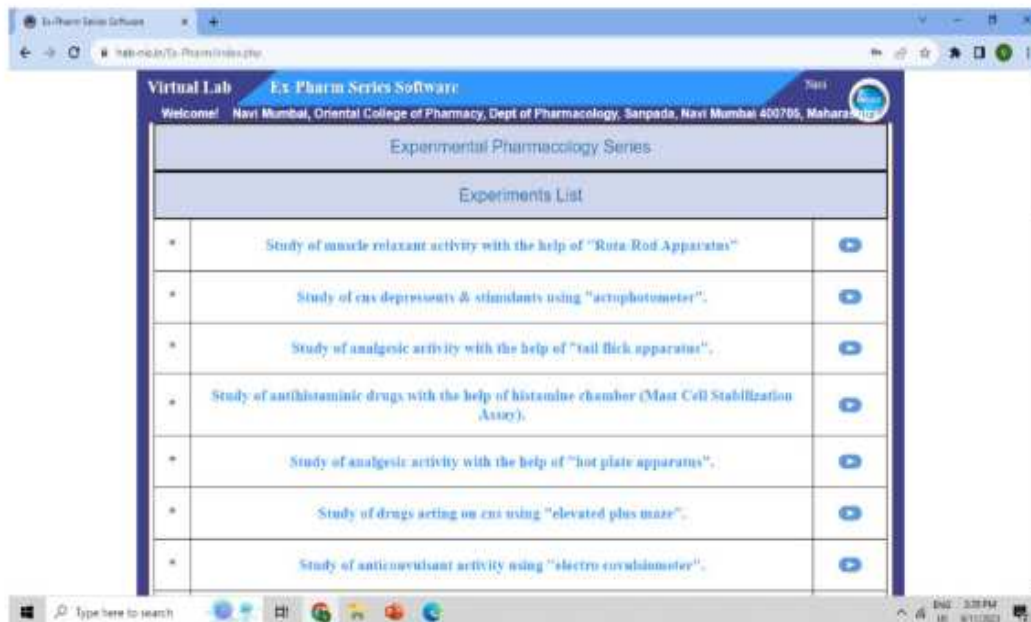


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BUREAU FOR HEALTH & EDUCATION STATUS UPLIFTMENT

(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: 05/04/2024

Proforma Invoice/Quotation No.: 040505/2024

GST Reg. No: 08AJAPA7570J128

Category: Institution

Billing Address	Office Address
St. Wilfred Institute of Pharmacy, Panvel Near Shedung Toll Plaza, Old Mumbai-Pune Highway, Post - Shedung, Taluka - Panvel, Dist. Raigad. Pin Code - 410206. (Maharashtra).	St. Wilfred Institute of Pharmacy, Panvel Near Shedung Toll Plaza, Old Mumbai-Pune Highway, Post - Shedung, Taluka - Panvel, Dist. Raigad. Pin Code - 410206. (Maharashtra).

Sr. No.	Description (Subscription)	Duration	Qty.	Unit price	GST	Total
1.	Ex Pharm (Experimental Pharmacology) - Series Software	1 Year	1 (Institutional License)	4,150 ₹ (Neo Pack - Covering All Experimental Pharmacology Modules of Latest B.Pharm - D Pharm Syllabus as per PCI)	747 ₹	4,897 ₹

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.

Sub Total	4,897 ₹
Remarks	-
Total Due	4,897 ₹

Remit payment in INR through Demand Draft/Cheque/NEFT/RTGS/Online to Following Account Details

Account Name: Health Education Bureau,

Bank: UCO Bank

Branch: Mansarovar, Jaipur, Rajasthan

Account No. 20960210003121,

IFSC Code: UCBA0002096

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STATUS UPLIFTMENT

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Contact: 0141-2783681, 9636348191

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

Website: www.heb-nic.in

Proforma Invoice/Quotation

Date: 05/04/2024

Proforma Invoice/Quotation No.: 040506/2024

GST Reg. No: 08AJAPA75701128

Category: Institution

Billing Address	Office Address
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SR.No	Description (Subscription)	Duration	Qty.	Unit price	GST	Total
1.	Ex Pharm (Experimental Pharmacology) - Series Software	3 Years	1 (Institutional License)	9,960 ₹ (Neo Pack - Covering All Experimental Pharmacology Modules of Latest B.Pharm - D Pharm Syllabus as per PCI)	1,792 ₹	11,752 ₹
					Sub Total	11,752 ₹
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Final invoice will be issued at the completion of payment.					Total Due	11,752 ₹

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----- Forwarded message -----

From: Bureau for Health and Education Status Upliftment <serviceheb@gmail.com>

Date: Fri, Apr 5, 2024 at 10:54 AM

Subject: Proforma Invoice/Quotation for the Ex Pharm (Experimental Pharmacology) - Series Software.

To: St. Wilfred institute of pharmacy Panvel <st.wilfredpharmacy@gmail.com>

Sir/Madam,

In response to your communication, we are hereby sending you Proforma Invoice/Quotation for the Ex Pharm (Experimental Pharmacology) - Series Software (for Neo Pack) for 1-year and 3-years subscriptions.

On subscription, we will provide the following things.

- Registered version of the software (Site license - For 2.5 KM periphery - For Predefined Number of Systems)
- Exam Mode
- Registered Licence Letter
- User Manual
- Support Team Interface
- Registered GST Invoice



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B.PHARM 2023-24 PROJECT TITLE

Sr. No.	Title	Roll No.
1.	Formulation and Evaluation of Antimicrobial Solution Spray Containing Extract of Tridax Procumbens.	01,02,07
2.	FORMULATION OF ANTIDIABETIC ANTIHYPERLIPIDEMIC ORAL SOLUTION OF HELICTERES ISORA (MURUDSHENG)	03,04,05
3.	FORMULATION AND DEVELOPMENT OF COUGH SYRUP	06,08,09,10
4.	ANTICANCER AND ANTIDIABETIC ACTIVITY OF MURRAYA KOENIGII	11,18,19
5.	FORMULATION AND EVALUATION OF HERBAL CREAM BY CAMARA LANTANA LINN	12,15,16,20
6.	FORMULATION AND EVALUATION OF MOUTH ULCER GEL	13,14,17
7.		21,27,28
8.	FORMULATION AND EVALUATION OF POLYHERBAL SOAP CONTAINING EXTRACTION OF NEEM LEAVES, GAUVA LEAVES, TULSI LEAVES	22,30
9.	STUDY THE EFFECT OF TRANSDERMAL PATCH CONTAINING TRAMADOL HCL AND PARACETAMOL	23,24,26
10.	FORMULATION AND EVALUATION OF HERBAL FACE WASH CONTAINING GERANIUM ESSENTIAL OIL COMBINATION WITH TURMERIC SANDALWOOD AND ROSE PETALS	25,29
11.	EMERGING THERAPY OF DENGUE	31,32,40
12.	INTRADERMAL ANTIRABIES VACCINES - THE NEW ARMAMENT	33,34,35
13.	FORMULATION AND EVALUATION OF POLYHERBAL GEL OF CLITORIA TERNATEA FOR ACNE TREATMENT	36,37,38,39
14.	SENNA ALATA LINN -HERBAL FORMULATIONS FOR TREATMENT OF ONYCHOMYCOSIS	41,42,44,46
15.	FORMULATION AND EVALUATION OF HERBAL HAIR OIL	45,47
16.	FORMULATION AND EVALUATION OF ANTIBACTERIAL HERBAL GELS OF MURRAYA KOENIGII LEAVES EXTRACT	48,49,50
17.	DEVELOPMENT AND ANALYSIS OF LEMON INFUSED SOAP	51,52,53
18.	FORMULATION AND EVALUATION OF ANTIWRINKLE OIL FROM FLAXSEED EXTRACT	43,54,55,56
19.	ASTHMA	57,58,59,60
20.	NIRGUNDI INFUSED GUMMIES-EXPLORING ANALGESIC POTENTIALS IN HERBAL FORMULATION	61,63,64,65



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22.	DEVELOPMENT AND ESTIMATION OF MEDICATED CHOCOLATE FOR ORAL DRUG DELIVERY IN TRIBAL PEDIATRICS	66,67,68,69
23.	FORMULATION AND EVALUATION OF HERBAL BANANA FLOWER-DERIVED BATH BOMB	71,72,73,74,75
24.	FORMULATION AND EVALUATION OF ANTIFUNGAL TRANSDERMAL PATCH USING ASHWAGANDHA AND BRAMHI	76,77,78,79,80
25.	BLOOD PRESSURE REGULATION PROPERTIES OF HIBISCUS SABDARIFFA	81,87,88
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28.	FORMULATION AND EVALUATION OF POLYHERBAL ANTILICE SHAMPOO	85,86,89
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35.	FORMULATION AND EVALUATION OF MUCOADHESIVE TADALAFIL BUCCAL TABLET	114, 117, 121



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PROJECT TITLE A.Y. (2022-2023)

Sr. No.	Title	Roll No.
1.	Extraction and formulation of perfume from lemongrass leaves	79, 83, 84, 86, 89, 90, 91.
2.	Standardized assessment of Antioxidant activity of bitter gourd using different solvent	49, 46, 52, 51, 43
3.	QUALITY CONTROL, STANDARDIZATION AND FORMULATION OF NYCTANTHES ARBOR TRISTIS	55, 57, 58, 59, 61, 63
4.	Tinospora cordifolia: Formulation and evaluation of herbal tea with its immunomodulatory property	05, 06, 07, 08
5.	FORMULATION AND EVALUATION OF HERBAL PREPARATIONS USING EXTRACTS OF Chamomilla Recutita	50, 21, 53, 57, 60, 01, 02
6.	Formulation and Evaluation of Toothpaste Preparation Using Aegle Marmelos	92, 94, 98, 99, 100, 104
7.	Novel drug formulation for inhibition of f-amyloid protein by using Pharmacokinetics and In-Silico modelling studies.	PH190012. PH190018. Ph190032. PH190036. PH190020
8.	Determination of antioxidants property of ferula asafoetida by using different solvent.	42, 44, 47, 48, 50
9.	“Formulation And Evaluation of Lip Salve Using Dry Gum Method from Cocus nucifera And Beta vulgaris With Qualitative Phytochemical Analysis.”	38, 30, 31, 32, 33, 36

ICT ENABLED TOOLS FOR EFFECTIVE TEACHING- LEARNING PROCESS



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POWERPOINT PRESENTATION

Clipboard Slides Font Paragraph Drawing Editing Add-ins

Definations

- ▶ Pilot plant: it is a part of pharmaceutical industry where a lab scale formula is transferred into a viable and robust product by development of reliable and practical procedure of manufacturing.
- ▶ Scale-up: the art of designing Of prototype by using the data obtained from The pilot plant model.

Click to add notes

DURA MATER

- ❑ Thick dense inelastic membrane and the outermost layer of the meninges
- ❑ Bilaminar:
 - Endosteal layer (outer)
 - Meningeal layer (inner)

These are closely united except along certain lines, where they separate to form venous sinuses.

6 The Meninges

7

8 DURA MATER

9 DURA MATER



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The screenshot shows a Microsoft PowerPoint presentation slide titled "Introduction". The slide is part of a presentation with four slides visible in the left-hand pane. The main slide content is as follows:

Introduction

- **Biotransformation**
 - **Drug metabolism (biotransformation or detoxication)** is the biochemical changes of the drugs and other foreign substances in the body.
 - This is leading to the formation of different metabolites with different effects.
 - Some of the compounds are excreted partially unchanged and some are known to be converted to products, which may be more active or more toxic than the parent compounds.
 - The liver is the major site of drug metabolism, but specific drugs may undergo biotransformation in other tissues.

The slide footer shows the date "4/13/2018" and the slide number "6".



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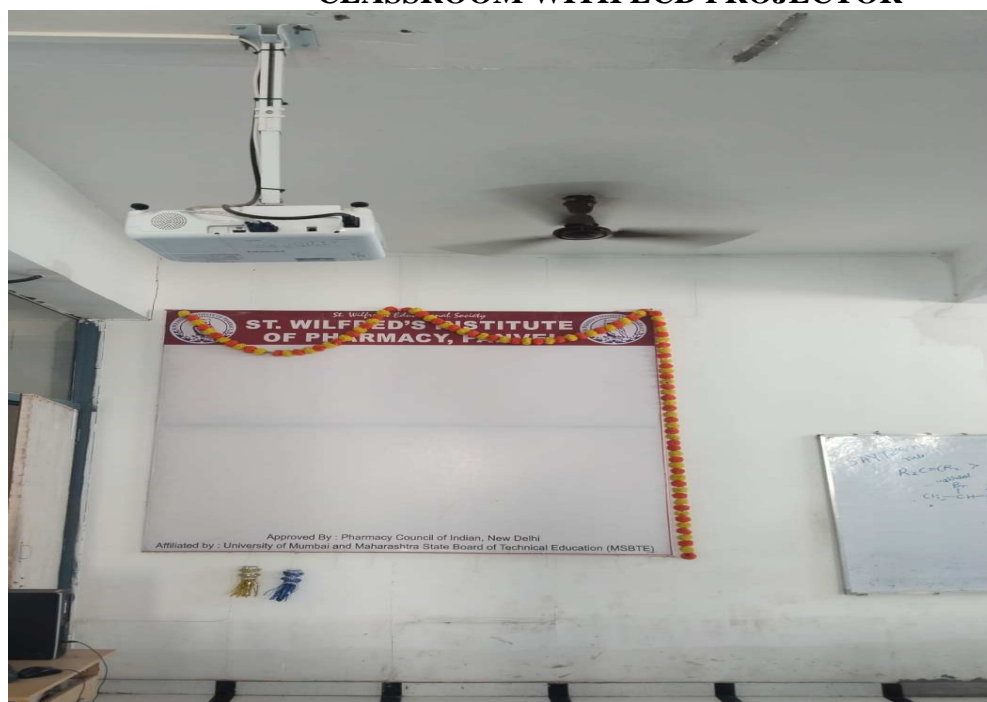
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CLASSROOM WITH SMARTBOARD



CLASSROOM WITH LCD PROJECTOR





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Field Visit:



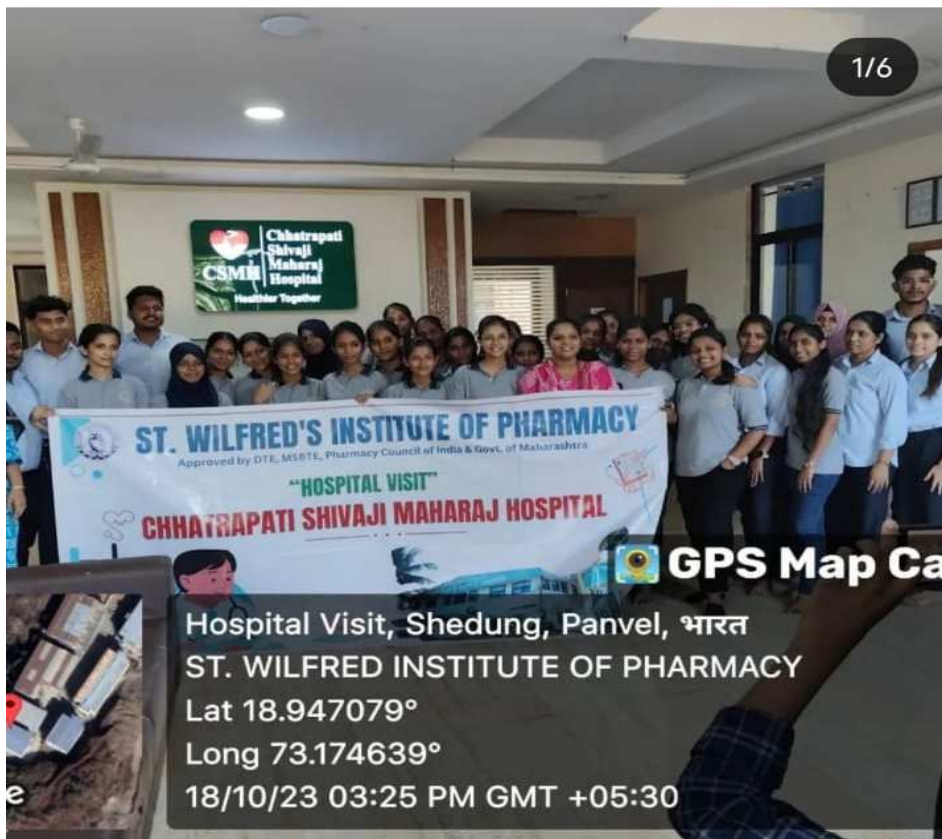


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INDUSTRIAL VISIT:





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ASSIGNMENTS:

Assignment No: 02

Page No.	7
Date	/ /

(Q.11) Write a note on solubility profile (pH, pKa, partition coefficient)

Ans -

- (1) Solubility is defined as the amount of the drug (solute) that dissolves in a given amount of (solvent) to form to obtain a saturated solution at constant temperature & pressure.
- (2) Solubility is an important and essential preformulation parameter before designing of dosage form. This parameter helps to the formulator to select the best solvent.
- (3) This parameter also help to select drug-solvent system that could occur during drug delivery.
- (4) The drugs which are poorly soluble shows slow distribution, dissolution as well as absorptive. Drug having solubility greater than 1:1 w/v do not pose bioavailability problems.
- (5) For the absorption of drug from dosage form into the systemic circulation, it is necessary that drug should be in solution form.
- (6) Solubility method should be determined in the pH range of 2 to 8. The drug concn is determined with the help of HPLC, UV-Spectroscopy, Fluorescence Spectroscopy and gas chromatography.
- (7) The parameters evaluated during solubility analysis are: Ionization Constant (pKa), pH, Partition coefficient.



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① pH :- pH is defined as power of Hydrogen or potential of Hydrogen.

② Also The solubility can be determined in the pH range of 2 to 8.

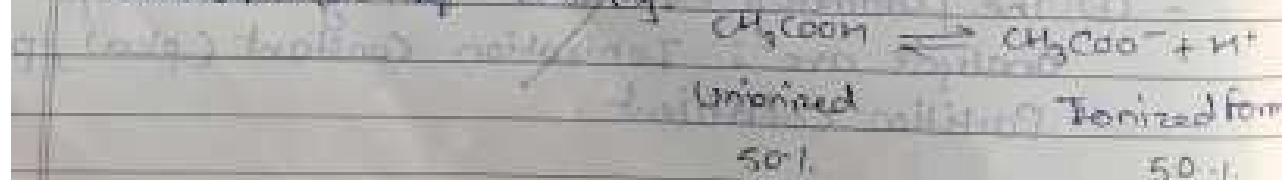
③ It also affects the solubility of particle.

④ By changing the pH, the solubility of the acidic or basic drug will also show a difference in solubility. Solubility can be enhanced by addition of alkaline buffer (Aspirin). These reactions can be minimized by adjusting the pH of solution to minimize degradation.

⑤ Solubility of Aspirin can be enhanced by addition of alkaline buffer.

② pK_a :- [ionization Constant] :- Many drugs are either weak acids or weak bases. The absorption is dependent to a large extent on their degree of ionization. The unionized species are lipid soluble and transported by passive diffusion across the membrane. While the ionized species are lipid insoluble and having slow permeability.

pK_a can be calculated using the Henderson-Hasselbalch eq. for eg.





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Assignment No - 3

Date: 11
 Page: 15/18/23

1. Define antihypertensive drugs, classify antihypertensive drugs describe the pharmacology of propranolol and nifedipine.

Ans: Antihypertensives are a class of drugs that are used to treat hypertension. Antihypertensive therapy seeks to prevent the complications of high blood pressure such as stroke and myocardial infarction.

ANTHYPERTENSIVE AGENTS

DIURETICS	RENIN - ANGIOTENSIN System Inhibitors	SYMPATHETIC inhibitors
High Ceiling Osmotic Loop Thiazide Osmotic Osmotic Osmotic	Pot. sparing ACE Inhibitors Direct renin Inhibitors	β-adrenergic Blockers α ₁ Adrenergic blockers
Furosemide (other) Eplerenone Amiloride	Lisinopril Candesartan Valsartan Telmisartan Olmesartan	Propranolol Metoprolol Atenolol (other) Labetalol Carvedilol
ACE Inhibitors	Angiotensin (AT ₁) receptor blockers	Direct renin Inhibitors
Lisinopril Candesartan Valsartan Telmisartan Olmesartan	Lisinopril Candesartan Valsartan Telmisartan Olmesartan	Aliskiren
		α ₁ Adrenergic blockers Sympatholytic
		Prazosin Terazosin Doxazosin Phentolamine Pteroxybenzamine
		Central Sympatholytic Clonidine Methyldopa



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Assignment No: 01



DRUGS AND MAGIC REMEDIES ACT AND ITS RULES [Unit-4]

Definitions :-

1. Advertisement : It includes any notice, circular, label, wrapper, or other document, and any announcement made orally or by any means of producing or transmitting light, sound or smoke.
2. Drug Includes :
 - a) A medicine for the internal or external use of human beings or animals.
 - b) Any substance intended to be used for or in the diagnosis, cure, mitigation, treatment or prevention of disease in human beings or animals.
 - c) Any article, other than food, intended to affect or influence in any way the structure or any organic function of the body of human beings or animals.
 - d) Any article intended for use as a component of any medicine substance or article, referred to in sub-class (i), (ii) and (iii).
3. Magic Remedy : It includes any talisman, mantra, amulet or any other object which is claimed to have miraculous powers to cure, diagnose, prevent or mitigate a disease in human or animal.



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First Sessional Exam 2023-24

B. Pharma Third Year Sem VI [REG (PCI syllabus)]

Sub: Biopharmaceutics and Pharmacokinetic

Sub code: BP604T

Date: 31/01/2024

Max Marks: 30

Duration: 1hr

Roll No.

Note: All questions are compulsory. Draw well label diagram wherever necessary

Course Outcomes (CO):

CO1: Understand the basic concepts in biopharmaceutics and pharmacokinetics and their significance.

CO2: Use of plasma drug concentration-time data to calculate the pharmacokinetic parameters to describe the kinetics of drug absorption, distribution, metabolism, excretion, elimination.

CO3: To understand the concepts of bioavailability and bioequivalence of drug products and their significance.

CO4: Understand various pharmacokinetic parameters, their significance & applications

		Marks	CO	BL	PO
Q.1	Multiple choice questions (Answer all questions)				
1	Which of the following is a not mechanism of drug absorption through GIT A. Pore transport B. Active transport C. Endocytosis D. Metastasis	1	4	1	1
2	_____ in lipophilicity builds the stretch out of restricting. A. Increase B. Decline C. Consistent D. Nothing	1	1	1	1
3	The process of engulfing of particulate material is called A. Pinocytosis B. Phagocytosis C. Convective transport D. Facilitated diffusion	1	4	1	1
4	_____ is the tight intersection between <u>geroli</u> cells. A. BBB B. placental boundary C. blood-testis hindrance D. endothelial hindrance	1	4	1	1
5	What is the name of the specific cells that help the blood-brain hindrance tissue? A. <u>Astrocates</u> B. Dendrites C. Fat cells D. Endothelial cells	1	4	1	1
6	Which of the following is not included in the excretory system of humans? a) Cloaca b) Kidneys c) Ureters d) Urethra	1	1	1	1
7	The beginning of pharmacological response is called as... a. Onset time b. Duration of <u>action</u> c. Onset of action d. Intensity of action	1	1	1	1



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8	BCS class IV drugs have a. Low solubility & High permeability b. Low solubility & Low permeability c. High solubility & High permeability d. High solubility & Low permeability	1	1	1	1
9	Intestinal transit time for Duodenum is a. 0.5 to 1 hrs. b. 3 to 6 hrs. c. 2 hrs. d. 5 minute	1	1	1	1
10	The absorption of drugs like (quaternary ammonium compounds, sulphonic acid) are explained by A. Ion pair transport B. convective transport C. active transport D. Facilitated diffusion	1	4	1	1
Q.2	Long answer (Answer 1 out of 2)	10			
1	Define Absorption. Discuss in detail the physico chemical factors affecting drug absorption.	10	1	1	1
2	Write in detail about protein binding and its significance.	10	1	1	1
Q.3	Short answer (Answer any 2 out of 3)	10			
1	How is drug distributed to CNS through blood brain barrier?	5	1	1	1
2	Write a note on non renal excretion of drugs.	5	1	1	1
3	Explain passive diffusion of drugs and the principle behind it.	5	1	1	1




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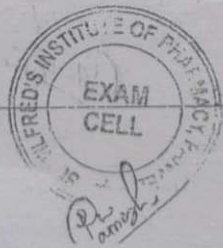
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First Sessional Exam 2023-24
B. Pharm Third Year Sem VI [REG (PCI syllabus)]

Sub: Pharmaceutical Biotechnology Sub code: BP605T Date: 01/02/2024
Max Marks: 30 Duration: 1hr Roll No.
Note: All questions are compulsory. Draw well label diagram wherever necessary

Course Outcomes(CO):
CO1: Know the various pharmaceutical dosage forms and their manufacturing techniques.
CO2: Know various considerations in development of pharmaceutical dosage forms.
CO3: Formulate solid, liquid and semisolid dosage forms and evaluate them for their Quality.

		Marks	CO	BL	PO
Q.1	Multiple choice questions (Answer all questions)	10			
1	Method is used for screening of transformed Cells a) Blue-White Screening b) SDS-PAGE c) Sangers method d) None of the above	1	3	1	1
2	Anaphylactic shock is which type of hypersensitivity reactions a) Type I hypersensitivity b) Type II hypersensitivity c) Type III hypersensitivity d) Type IV hypersensitivity	1	2	1	1
3	Gelatin sponge is used for ____ a) Vaccination b) Anticoagulant c) Hemostat d) Blood group identification	1	3	1	1
4	Who developed western blotting? a) Towbin b) Thomas c) Alwine d) Roy	1	2	1	1
5	Associated proteins with DNA are ____ a) Lipoproteins b) Glycoproteins c) Histones d) All of the above	1	3	1	1
6	Help to control temperature inside the bioreactor a) Sparer b) Impeller c) pH Sensor d) Internal Coils	1	2	1	1
7	Who invented PCR a) Kary Mullis b) Watson c) E.M.Southern d) Meselson	1	2	1	1





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8	Immunity acquired from mother to foetus is a) Active immunity b) Passive immunity c) Innate immunity d) All of the above	1	2	1	
9	is prokaryotic micro-organisms b) Algae b) Fuagi c) Virus d) Rickettsia	1	2	1	1
19	An enzyme that cleaves of DNA at specific site is called ____ a) Restriction endonucleases b) trypsin c) pepsin d) none of the above	1	3	1	1
Q.2	Long answer (Answer 1 out of 2)	10			
1	Write in detail the production of Insulin by genetic engineering method?	10	3	1	1
2	Explain the different methods of immobilization of enzyme. And give its applications?	10	2	1	1
Q.3	Short answer (Answer any 2 out of 3)	10			
1	Write a note on applications of genetic engineering in medicine production?	5	1	1	1
2	Explain briefly, transformation, transduction and conjugation?	5	2	1	1
3	Write any four pharmaceutical applications of biosensors?	5	2	1	1

immunity acquire
a) Active immunity
d) All of the above
is prokaryotic
b) Algae

9

EXAM CELL
St. Wilfred's Institute of Pharmacy

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Panvel, Dist. Raigad (Maharashtra) - 410206.

Sessional Theory Examination - I/II/III

20 23 - 20 24

Name of Student: Jatin Shiva Moran

Roll No. : 53 Class : F.Y.B.P Sem. : II

Subject : Pathophysiology Date : 14/03/24

No. of Supplementary Used : 1 Max. Marks _____



Moran
14/03/24
Sign of Invigilator

Marks Summary -

Sr. No.	A	B	C	D	E	Total Marks
Q.1	10					10
Q.2	08					08
Q.3	04	04				08
Grand Total						26/30

Marks in Words : _____

[Signature]
Sign of Subject In-Charge



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Space for Marks	Question No.	START WRITING HERE
	b)	<p>Phagocytosis:-</p> <p>It is defined as the killing of the particle with WBC's.</p> <p>There are 3 stages of Phagocytosis are as follows:-</p> <ol style="list-style-type: none">Attachment.EngulfmentExcretion of foreign particle. <p>a) Attachment:-</p> <p>In these, the WBC's attached with the foreign particle. and helps to get some information of the foreign particle. and also stores the information.</p> <p>b) Engulfment:-</p> <p>In these, the WBC's starts to kill the foreign particle with the term of the Apoptosis.</p> <p>c) Excretion:-</p> <p>In these, the body starts to excrete out the foreign particle with the data stored in the body. If that foreign particle come again, then the body will easily excrete out the foreign particles.</p>

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Sessional Theory Examination I/II/III

2023 - 2024

Name of Student : Vedanti Rajendra Dagade

Roll No. : 15 Class : FLBP Sem. : 2nd

Subject : Pathophysiology Date : 14/3/24

No. of Supplementary Used : (1) Max. Marks _____



Bunil
14/03/24
Sign of Invigilator

Marks Summary -

Sr. No.	A	B	C	D	E	Total Marks
Q.1	10					10
Q.2	09					09
Q.3	05	05				10
Grand Total						29/30

Marks in Words : _____

Gels
Sign of Subject In-Charge



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Space for Marks	Question No.	START WRITING HERE
	Q.2)	
	2)	
	→	Inflammation:-
		It is defined as the when the foreign particle enters the body. WBC's cell helps to kill the foreign particle in the vascular connective tissue.
		These are follow as 2 types:-
		a) Migration of WBC's.
		b) Phagocytosis.
		u) Migration of WBC's:-
		i) When the foreign particle enters in the body, the cells will give a impulse or a message.
		ii) When the message has reached to the brain, then the WBC's are give in to kill the foreign particle.
		iii) WBC's are the cell which is incharge of killing the foreign particle.
		iv) While killing the foreign particle some part of the particle has to be taken because if the particle comes then, the body should have the antitode to fight with particle.