NATIONAL COLLEGE OF PHARMACY MANASSERY

FIRST SESSIONAL EXAMINATION

SUB:INDUSTRIAL PHARMACY

Date:- 22/11/2023 Max Marks:-75

Time:3Hrs Semester: VII

Answer all questions

Sl. No	Question	CO addressed	Marks
1	Write a note on drug development teams and their functions	CO-3	10
2	Discuss pilot plant scale up consideration for tablets	CO-1	10
3	Space requirement and personal requirement.	CO-1	5
4	Explain SUPAC and GMP considerations.	CO-1	5
5	Write a note on IB.	CO-3	5
6	Organisation and functions of CDSCO	CO-4	5
7	Method in data presentation for FDA submission	CO-3	5
8	Explain in detail about COPP	CO-4	5
9	Discuss general consideration of INDA	CO-3	5
10	Write the advantages and disadvantages of pilot plant.	CO-1	2
11	Platform technology.	CO-1	2
12	State licencing authority.	CO-4	2
13	Various modules in CTD	CO-4	2
14	List out pilot plant scale up consideration for semisolids.	CO-1	2
15	Difference between pilotplant and scale up.	CO-1	2
16	Mention the major regulatory bodies in the world.	CO-3	2
17	Clinical research protocol.	CO-3	2
18	Define pre exhibit batch and exhibit batch	CO-1	2
19	What is regulatory affair? What is its goal.	CO-3	2

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FIRST SESSIONAL EXAMINATION

SUB: NOVEL DRUG DELIVERY SYSTEM

Date:- 27/11/2023 Max Marks:-75

Time: 3Hrs Semester: VII

Answer all questions

Sl. No	Question	CO addressed	Marks
1	Explain the concept of controlled drug delivery system and approaches to design them.	CO-1	10
2	Formulation and evaluation of bioadhesive drug delivery systems	CO-2	10
3	Discuss the formulation criteria for pulmonary route of drug administration.	CO-3	5
4	Theories of mucoadhesion	CO-2	5
5	Classify Polymers in novel drug delivery system	CO-1	5
6	Basic component of osmotic pump	CO-2	5
7	Formulation of nebulizers	CO-3	5
8	Buccal patches	CO-2	5
9	Discuss the limitations of conventional ocular delivery	CO-3	5
10	List out characteristics of ideal polymer	CO-1	2
11	Ocusert	CO-5	2
12	What are implants. Give example.	CO-2	2
13	Enlist ideal features of permeation enhancers with examples.	CO-2	2
14	Mucoadhesive polymers	CO-2	2
15	What is pulmonary DDS? Write about its advantages and disadvantages	CO-3	2
16	Name different mechanisms of drug release from polymers.	CO-1	2
17	Mention two examples each of hydrophilic and hydrophobic polymer.	CO-1	2
18	Name any two ion exchange resins used in controlled drug delivery formulations.	CO-1	2
19	Buccal tablets	CO-2	2

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SECOND SESSIONAL EXAMINATION

SUB: BIOPHARMACEUTICS AND PHARMACOKINETICS

Date: 27.01.2023 Max Marks: 75

Time: 3 HOURS Answer all questions Semester : VI

SL. No	Question	CO addressed	Marks
1	Explain the kinetics of two compartment open model IV bolus administration.	CO-4	10
2	Explain the urinary excretion method for determining Ke and K_E.	CO-3	10
3	Explain the methods for the enhancement of bioavailability.	CO-2	5
4	Elaborate on in-vitro in-vivo correlation.	CO-2	5
5	Explain the method of residuals to determine the absorption rate constant for a drug. Which follows one compartment open model extravascular administration.	CO-3	5
6	Describe the pharmacokinetics of intravenous multiple dosage regime – one compartment open model.	CO-4	5
7	Elaborate on the compartment models and their types	CO-3	5
8	Describe the Wagnor Nelson method for the calculation of Ka.	CO-2	5
9	Explain the methods available for determining bioavailbility.	CO-2	5
10	Explain any method for determination of AUC.	CO-3	2
11	Explain the key features of any one official apparatus for dissolution studies.	CO-2	2
12	Describe any two pharmacokinetic parameters.	CO-3	2
13	Explain loading dose and maintenance dose.	CO-4	2
14	Explain absolute and relative bioavailability.	CO-2	2
15	Describe flip flop phenomenon.	CO-3	2
16	Explain typical plasma concentration time profile.	CO-3	2
17	Differentiate between compartment modelling and physiological modeling	CO-3	2
18	Explain non-compartmental analysis.	CO-3	2
19	Explain the criteria for establishing valid urinary excretion data.	CO-3	2

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SECOND SEMESTER SECOND SESSIONAL EXAMINATION

BIOCHEMISTRY

Date: - 29/11/2023 Max Marks:-75

Time:- 3Hrs

Answer all questions

Sl. No	Question	CO addressed	Marks
I	Analyze the biosynthesis of purine ribonucleotides, evaluate the key steps involved, and synthesize the significance of this process.	CO-1	10
2	Explain in detail on different types of enzyme inhibition.	CO-2	10
3	Describe isoenzymes, evaluate their functions.	CO-2	5
4	Explain briefly on Genetic code	CO-4	5
5	Examine the Electron Transport Chain (ETC) with suitable diagrams.	CO-3	5
6	Define and classify enzymes, providing examples for each class, Analyze their functions	CO-2	5
7	Examine the structure of DNA and analyze its functions in genetic information storage and transfer.	CO-4	5
8	Analyze the process of transcription, evaluate its key steps, and synthesize its significance in gene expression.	CO-4	5
9	Examine the structure and functions of ATP, evaluate its role as a cellular energy currency, and synthesize its importance.	CO-3	5
10	Describe any two properties of enzymes	CO-2	2
11	Evaluate substrate-level phosphorylation	CO-3	2

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12	Examine the Michaelis-Menten equation suitable graph	CO-3	2
13	Explain redox potential	CO-3	2
14	Explain hyperuricemia and gout	CO-1	2
15	Explain about inhibitors of oxidative phosphorylation	CO-3	2
16	Explain on free energy	CO-3	2
17	Analyze the properties of enzymes, evaluate their characteristics, and synthesize their role in catalyzing biochemical reactions.	CO-2	2
18	Describe enzyme induction and repression,	CO-2	2
19	Examine the process of DNA replication.	CO-4	2

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HUMAN ANATOMY AND PHYSIOLOGY

B. PHARM THEORY

First Sessional Examination

Date:

Questions	Marks Awarded						Max. Marks
	C01	C02	C03	C04	C05	C06	
Q1			8				
Q2	6						
Q3			2.5				
Q4		3					
Q5			3				
Q6		4					
Q7			2.5				
Q8			3				
Q9	1.5						
Q10			2				
Q11	2						
Q12		2					
Q13		2					
Q14			1.5				
Q15			1.5				
Q16			2				
Q17			2				
Q18	2						
Q19		2					
Total Marks	11.5	13	28				

Name & Signature of Evaluators

1)

2)

Grand Total

52.5

Second Sessional Examination

Date:

Questions	Marks Awarded					Max. M
	C01	C02	C03	C04	C05	
Q1				8.5		
Q2	1.5					
Q3			3.5			
Q4				2.5		
Q5				4.5		
Q6				4.5		
Q7		4.5				
Q8				4.5		
Q9				4		
Q10		1				
Q11				1.5		
Q12				2		
Q13				2		
Q14		2				
Q15		2				
Q16				2		
Q17				0.5		
Q18				0.5		
Q19				2		
Total Marks	1.5	9.5	3.5	34		

Name & Signature of Evaluators

1)

2)

Gr

53.5

Average Sessional Marks : 53

Signature of Student : Hafiz

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