Total No. of Questions: 3 *Total No. of Printed Pages:2*

Enrollment No.....

Faculty of Pharmacy
End Sem Examination Dec-2023
PY3CO21 Pharmacognosy & Phytochemistry -II

Programme: B. Pharm. Branch/Specialisation: Pharmacy

Duration: 3 Hrs. **Maximum Marks: 75**

Note: All questions are compulsory. Internal choices, if any, are indicated. Assume suitable data if necessary. Notations and symbols have their usual meaning.

Q.1	i.	What are the various products of secondary metabolic pathway?	**2**
	ii.	What is Final Product of Shikimic acid pathway.	**2**
	iii.	Define Cardiac Glycoside with two examples.	**2**
	iv.	Define Resins with two examples.	**2**
	v.	Name any two methods used for estimation of herbal drugs.	**2**
	vi.	Define phytochemistry with examples.	**2**
	vii.	Give any four uses of artemisin.	**2**
	viii.	Draw the structure of quinine.	**2**
	ix.	Give any two chemical test to identify caffeine in drug sample.	**2**
	x.	Give the complete biological source of atropine.	**2**
Q.2		Attempt any two:	
	i.	Explain in detail about shikimic acid pathway.	**10**
	ii.	Define, and give the chemical classes, and therapeutic and application of Resins with any two crude drugs as examples.	**10**
	iii.	(a) Briefly explain amino acid pathway with structures.	**5**
		(b) Write short note on Vinca and Rauwolfia as source of alkaloids.	**5**
Q.3		Attempt any seven: Two questions from each section is compulsory.	
		Section - A	
	i.	What are methods of isolation and identification of quinine.	**5**
	ii.	Define alkaloids. Illustrate method of isolation and identification of reserpine.	**5**

	iii.	Give the method to isolate caffeine from tea leaves.	**5**
		Section - B	
	iv.	Write exhaustive note on modern method of extraction in identification of crude drugs.	**5**
	v.	Discuss about role of chromatography in identification of crude drugs.	**5**
	vi.	Brief out about percolation and decoction method of extraction.	**5**
		Section - C	
	vii.	Explain industrial production and utilization of digoxin.	**5**
	viii.	Write a note on estimation of sennoside from senna.	**5**
	ix.	Give any three biological source and method of industrial production of forskolin.	**5**

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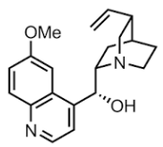
Marking Scheme

PY3CO21 - Pharmacognosy & Phytochemistry-II

Q.1	i)	Any Four See Metabolites		**2**
	ii)	Name	1 Mark	**2**
		Structure	1 Mark	
	iii)	Definition	1 Mark	**2**
		2 Example	0.5 Mark Each	
	iv)	Definition	1 Mark	**2**
		2 Example	0.5 Mark Each	
	v)	Name of ant two Methods	1 Mark Each	**2**
	vi)	Definition	1 Mark	**2**
		2 Example	0.5 Mark Each	
	vii)	Four uses	0.5 Mark each	**2**
	viii)			**2**
	ix)	Name of Two Tests	1 Mark Each	**2**
	x)	Complete Source	2 Mark	**2**

Q.2	Attempt any two:			
	i.	Shikimic Acid Pathway	10 Marks	**10**
	ii.	Definition	1 Marks	**10**
		Composition	1 Marks	
		Chemical classes	2 Marks	
		Chemistry	2 Marks	
		Biological source	2 Marks	
		Therapeutic Uses-	1 Marks	
		Commercial application-	1 Mark	
	iii.	a) Explanation with structures.		**5**
		b) biological source –	2 Mark	**5**
		Chemical constituents-	2 Mark	
		Uses-	1 Mark	

Q.3 Attempt any seven: Two questions from each section is compulsory.

Section – A

i.	Method of isolation –	2.5 Mark	**5**
	Identification -	2.5 Mark	
ii.	Definition -	1 Mark	**5**
	Method of isolation-	2 Mark	
	Identification -	2 Mark	
iii.	Definition -	1 Mark	**5**
	Method of isolation-	2 Mark	
	Identification	2 Mark	

Section – B

iv.	Definition-	1 Mark	**5**
	Description of method-	2 Mark	
	Application with example-	2 Mark	
v.	Detail about types of chromatography-	2 Mark	**5**
	Application with examples-	3 Mark	
vi.	Five methods of extraction		**5**

Section - C

vii.	Method of Industrial Production –	3 Mark	**5**
	Utilization -	2 Mark	
viii.	Estimation methods		**5**
ix.	Definition –	1 Mark	**5**
	Biological source-	2 Mark	
	Method of Industrial Production-	2 Mark	

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