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

Enrollment No.....

Faculty of Pharmacy
End Sem Examination Dec 2024
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.

			Marks	BL	PO	CO	PSO
Q.1	i.	What is the final product of Phenylpropanoids pathway?	**2**	1	1, 10	1	
	ii.	What are the various products of mevalonic acid pathway	**2**	1	1, 10	1	
	iii.	Define anthracene glycoside with two examples.	**2**	1	1, 10	2	
	iv.	Define tannins with two examples	**2**	1	1, 10	2	
	v.	Define phytochemistry with examples.	**2**	2	1, 10	3	
	vi.	Define reverse phase chromatography.	**2**	2	1, 10	3	
	vii.	Give any two uses of reserpine.	**2**	2	1, 10	4	
	viii.	Give chemical test to identify atropine in the drug sample.	**2**	2	1, 10	4	
	ix.	Give the complete biological source of digoxin.	**2**	2	1, 10	5	
	x.	Draw the structure of Vincristine.	**2**	2	1, 10	5	
Q.2		Attempt any two:					
	i.	What is basic metabolic pathway? Write in detail about shikimic acid pathway for the production of different secondary metabolites.	**10**	2	1, 10	1	
	ii.	What is Alkaloid? Write general introduction, classification, chemistry, composition and therapeutic uses of alkaloids.	**10**	1	1, 10	2	
	iii.	(a) Write a short note on utilization of radioactive isotopes in the investigation of biogenetic studies.	**5**	2	1, 10	1	

		(b) What is pseudo tannins? Write the chemical properties and chemical test of tannin.	**5**	2	1, 10	2	
Q.3		Attempt any seven: Two questions from each section is compulsory.					
		Section - A					
	i.	Write a short note on thin layer chromatography along with example.	**5**	2	1, 10	3	
	ii.	Explain the electrophoresis methods for the isolation, purification and identification of crude drugs.	**5**	2	1, 10	3	
	iii.	Write exhaustive note on the different types of modern extraction methods which are used for the extraction of active phytoconstituents from the crude drugs.	**5**	2	1, 10	3	
		Section - B					
	iv.	Discuss in detail about isolation, identification and analysis of menthol.	**5**	2	1, 10	4	
	v.	Describe isolation, identification and analysis of caffeine.	**5**	2	1, 10	4	
	vi.	Write a short note on isolation, identification and analysis of podophyllotoxin.	**5**	2	1, 10	4	
		Section - C					
	vii.	Write about industrial production, estimation and utilization of sennoside.	**5**	2	1, 10	5	
	viii.	Discuss in detail about industrial production, estimation and utilization of artemisinin.	**5**	2	1, 10	5	
	ix.	Describe in detail about industrial production, estimation and utilization of taxol.	**5**	2	1, 10	5	

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Marking Scheme

PY3CO21 Pharmacognosy & Phytochemistry -II

Q.1	i)	Flavonoids, polyphenols	**2**
	ii)	volatile oil, terpenoids	**2**
	iii)	Definition 1 mark Example 1 mark	**2**
	iv)	Definition 1 mark Example 1 mark	**2**
	v)	Definition 1 mark Example 1 mark	**2**
	vi)	Definition 1 mark	**2**
	vii)	Two uses	**2**
	viii)	Alkaloids test	**2**
	ix)	biological source of digoxin + Family	**2**
	x)	Indole using	**2**

Q.2 Attempt any two:

i.	Define – 2 marks Complete pathway – 8 marks	**10**
ii.	Definition- 2 marks classification – 4 marks chemistry and composition - 2 marks uses- 2 marks	**10**
iii.	(a) Definition – 1 mark Method – 4 marks	**5**
	(b) Definition – 1 mark properties – 2 marks chemical test – 2 marks	**5**

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

Section - A

i.	Definition chromatography- 1 mark Procedure- 2 marks Rf Formula- 1 mark example- 1 mark	**5**
ii.	Methods – 3 marks Example- 2 marks	**5**
iii.	Definition of extraction- 1 mark Methods explanation- 4 marks at least 4 method	**5**

Section - B

iv.	B.S. – 1 mark isolation – 2 mark identification – 1 mark analysis of menthol – 1 mark	**5**
v.	Describe isolation, identification and analysis of caffeine.	**5**
vi.	Write a short note on isolation, identification and analysis of podophyllotoxin.	**5**

Section - C

vii.	B.S. – 1 mark industrial production method – 2 mark estimation – 1 mark utilization of sennoside – 1 mark	**5**
viii.	Discuss in detail about industrial production, estimation and utilization of artemisinin.	**5**
ix.	Describe in detail about industrial production, estimation and utilization of taxol.	**5**

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