

Total No. of Questions: 3

Total No. of Printed Pages: 2

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Enrollment No.....



Faculty of Pharmacy  
End Sem (Odd) Examination Dec-2022  
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.

- Q.1
- Define metabolic pathway. 2
  - Elist any four methods to determine metabolic pathways. 2
  - Write down biological source and uses of vinca. 2
  - Write down chemical constituents and uses fennel. 2
  - Give any two chemical test to identify caffeine. 2
  - (a) Quinine is obtained from \_\_\_\_\_. 2  
(b) Draw the structure of quinine.
  - Give any two uses of artemisin. 2
  - Name any two methods used for estimation of herbal formulation. 2
  - Define phytochemistry with examples. 2
  - Define chromatography. List out different types of chromatography. 2

- Q.2
- Attempt any two:
- Explain shikimic acid pathway. What are different techniques to use radioactive isotopes to in biogenetic studies. 10
  - Discuss composition, chemical classes, therapeutic and commercial application of alkaloids with any two crude drugs as examples. 10
  - (a) Briefly explain aceto-mevalonate pathway with structures. 5  
(b) Write short note on mentha and clove as source of volatile oil. 5

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

Section - A

- What are methods of isolation and identification of curcumin? 5

P.T.O.

- Define terpenoids. Illustrate method of isolation and identification of citral. 5
- Define alkaloids. How you can isolate caffeine and identify it. 5

Section - B

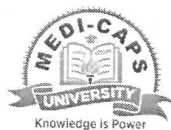
- Explain industrial production and utilization of diosgenin. 5
- Write a note on estimation of sennoside. 5
- Give biological source and method of industrial production of atropine and reserpine. 5

Section - C

- Write exhaustive note on application of spectroscopy in identification of crude drugs. 5
- Discuss about role of chromatography in identification of crude drugs. 5
- Brief out about modern methods of extraction. 5

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# Scheme of Marking



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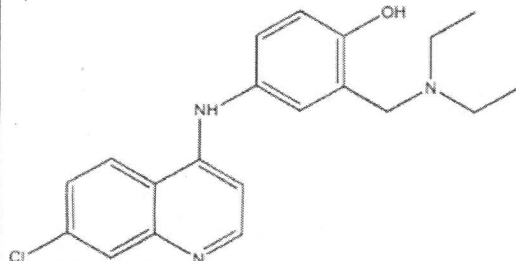
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Branch/Specialisation:

Duration: 3 Hrs.

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Note: The Paper Setter should provide the answer wise splitting of the marks in the scheme below.

Q.1	i)	Definition	2
	ii)	Four methods (0.5 marks each)	2
	iii)	Biological Source- 1 mark Uses- 1mark	2
	iv)	Chemical constituents- 1mark Uses – 1mark	2
	v)	Description any two test- 2marks	2
	vi)	a) Cinchona bark- 1mark b)	2
			
	vii)	Two Uses	2
	viii)	Any two methods- spectroscopy, chromatography	2
	ix)	Definition – 1 mark Example – 1mark	2
	x)	Definition – 1mark Types- 1mark	2
Q.2		Attempt any two:	
	i.	Shikimic acid pathway- 7 marks Methods – 3marks	10

	ii.	Definition -1mark Composition -1marks Chemical classes- 2marks Chemistry – 2marks Biological source- 2 marks Therapeutic Uses- 1marks Commercial application- 1 mark	10
	iii.	Explanation with structures.	5
		Biological source – 2marks Chemical constituents- 2 marks Uses- 1 mark	5
Q.3		Attempt any seven: Two questions from each section is compulsory.	
		Section - A	
	i.	Method of isolation – 2.5 marks Identification -2.5 marks	5
	ii.	Definition -1 mark Method of isolation- 2marks Identification -2 marks	5
	iii.	Definition -1 mark Method of isolation- 2marks Identification -2 marks	5
		Section - B	
	iv.	Method of Industrial Production – 3marks Utilization -2 marks	5
	v.	Estimation methods	5
	vi.	Definition -1 mark Biological source- 2 marks Method of Industrial Production- 2marks	5
		Section - C	
	vii.	Definition- 1marks Description of method-2marks Application with example- 2 marks	5
	viii.	Detail about types of chromatography-2marks Application with examples- 3 marks	5
	ix.	Five methods of extraction	5