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**Question Paper** 

Exam Date & Time: 18 April 2021 (2 pm to 5 pm)

## MANIPAL ACADEMY OF HIGHER EDUCATION Pharmacognosy and Phytochemistry II [PCD 8P504T]

Marks: 75, Duration: 180 mins.

## I Multiple Choice Questions (MCQs)

Answer all the questions. Section Duration: 30 mins (2 pm to 2:30 pm)

No.	Question								
1	Shikimic acid 3-phosphate condenses with phosphoenol pyruvate with elimination of water leads to the formation of								
	Prephenic acid		Shikimic acid pyrophosphate						
	Phenyl pyruvic acid		Chorismic acid						
2	Following phytoconstituents is considered as "mineral ice"								
	Rutin	Menthol	Diosgenin	Citral					
3	Isopentenyl pyrophosphate with Dimethyl allyl pyrophosphate on head to tail condensation form								
	Farnesayl pyrophos	phate	Geranyl pyropho						
	Sesquiterpene		5-pyrophospho 3-phosphomevalonic acid						
4	Aloinoside A is								
	Chrysoloin- 3-O- glu	ıcoside	Chrysoloin- 3-O- Rhamnoside						
	Barbaloin-3-O-gluco	oside	Barbaloin-3-O-Rhamoside						
5	Which one of the following is a phenotropic drug								
	Podophyllotoxin	Taxol	Reserpine	Vincristine					
6	Farnesyl pyrophosphate is a								
	Monoterpene	Diterpene	Sesquiterpene	Triterpene					
7	Following is the element absent in liquid alkaloids								
	Oxygen	Nitrogen	Carbon	Hydrogen					
8	Cymbopogon flexuousus is major source for the following phytoconstituents								
	Geranial	Linalool	Terpeneol	Cineole					
9	Teniposide is an derivative of								
	Podophyllotoxin	Vincristine	Forskolin	Artimisin					
10	Competitive feeding experiments are used in determination of								
	Precursors	Intermediate	s Final products	s Labelling					

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11	18th position of reserpine shows the pre-	sence of  Trimethoxy cinnamic acid  Dihyroxy cinnamic acid			
12	Dihydroxy benzoic acid  Caffeine is obtained from  Coffea arabica Cola acuminate	Theobroma cacao	All of the above		
13	Gerrards test is performed for the identification of the identific	Hyoscymine	All of the above		
14	Following phytoconstituents contain an I Reserpine Artemisin	vindiastine	None of the above		
15	Saponins causes haemolysis of RBC due to Sterols Proteins	farnonvotates	Carotenoids		
1.6	Sterols Proteins  Cleavage of a bond between 7 and 8 possubclass known as  Secoiridoids Enterodiol	Enterolactone	Naphthaquinones		
17	Z-Guggulserones are obtained from Commiphora molmol Commiphora abyssynica	Commiphora wightii Commiphora erythraea			
18	Forskolin is obtained from Plectranthus barbatus Podophyllum hexandrum	Catharathus roseus Artemisia annua			
19	Sennoside is isolated as calcium salt for Increasing solubility	Increasing activity All of the above	o 1 =		
20	Following is the references standard use Tri Methyl Silane Di Methyl Silane	ed in NMR Spectroscopy Methyl Silane Tetra Methyl Silane			

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## **Question Paper**

Exam Date & Time: 18 April 2021 (2 pm to 5 pm)

## MANIPAL ACADEMY OF HIGHER EDUCATION Pharmacognosy and Phytochemistry II [PCO-BP504T]

Sections Duration: 150 mins (2:30 pm to 5 pm)

	I Long Answers	
A	nswer all the questions.	
1)	a) What are Anthracene glycosides? Give their chemical nature and identification tests.  (1+2+2)	(10)
	b) Explain Senna with reference to source, morphology, chemical constituents and uses.  (1+2+1+1)	
2)	With the help of neat labelled diagram explain Counter current chromatography and HPLC for the separation of phytoconstituents.	(10)
	III Short Answers	
An	iswer all the questions.	
1)	Explain the industrial production, estimation and utilization of Digitoxin.	(5)
2)	Give the Shikimic gold nathway and its similificant	(5)
3)	Give the biological source and Explain the isolation of Diosgenin from different sources	(5)
4)	Give an account of Phenyl propanoids and Flavonoids with their identification test (4+1)	(5)
5)	Give the Biological source and explain the isolation and identification of Quinine	(5)
6)	Application and working of Mass spectroscopy in the identification and characterization of the phytoconstituents	(5)
7)	Give the biological source, method of preparation and uses of Rosin.	(5)
	End	