11819 3 Hours / 80 Marks Seat No. Instructions – (1) All Questions are Compulsory. (2) Answer each next main Question on a new page. (3) Illustrate your answers with neat sketches wherever necessary. (4) Figures to the right indicate full marks. (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall. Marks 1. **20** Attempt any TEN of the following: a) When, where and who coined the term pharmacognosy? b) Differentiate between leaf and leaflet. c) Define -Carminative (i) Antihypertensive d) Draw a well labelled diagram showing morphological characters of clove bud. e) Explain Goldbeater's skin test for tannins. Mention the synonym of following drugs -(i) Rauwolfia (ii)Gymnema

(iii) Gokhru

(iv) Vinca

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	g)	Write the biological source with family -	
		(i) Rhubarb	
		(ii) Tobacco	
	h)	Enlist different types of Ash value.	
	i)	Mention one example of crude drug from the following family	-
		(i) Zingiberaceae	
		(ii) Styraceae	
		(iii) Ranunculaceae	
		(iv) Rutaceae	
	j)	What is Garbling?	
	k)	Identify a drug containing following chemical constituents -	
		(i) Withanolide	
		(ii) D-linalool	
		(iii) Allin	
		(iv) Vitamin-A	
l) Which part of the		Which part of the plant is used as crude drug in case of -	
		(i) Cinchona	
		(ii) Black pepper	
		(iii) Ephedra	
		(iv) Colchicum	
2.		Attempt any THREE of the following:	12
	a)	Assign the name and explain chemical test for the crude drug containing -	
		(i) Tropane alkaloid	
		(ii) Mucilage	
	b)	Describe the method of collection and preparation of senna leaf for market.	

c) Enlist various methods for isolation/extraction of volatile oil.

Explain any two methods in detail.

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	d)	What are cardiotonics? Write the biological source chemical constituents and uses of Arjuna.
	e)	Define Antiseptics and Disinfectants. Give biological source with family of -
		(i) Neem
		(ii) Myrrh
3.		Attempt any THREE of the following: 12
	a)	Give the chemical constituents and uses of -
		(i) Fennel
		(ii) Sandalwood
	b)	Explain chemical classification of crude drug with its merits and demerits.
	c)	How will you distinguish silk fibres from wool fibres, using its source, solubility tests and two chemical tests.
	d)	Describe the 'Life cycle of Ergot'.
	e)	Name any two adulterants for -
		(i) Senna
		(ii) Clove
		(iii) Nux-vomica
		(iv) Digitalis
4.		Attempt any <u>THREE</u> of the following: 12
	a)	Define evaluation of crude drugs. Describe any three leaf constants used for drug evaluation with examples.
	b)	Draw a well labelled diagram of T.S of Nux-vomica and describe it's microscopy by giving minimum four points.
	c)	Name the drug and their uses belonging to following family. (Any two)
		(i) Acanthaceae
		(ii) Caricaceae
		(iii) Gentianaceae

- d) Define pharmaceutical Aids. Classify it according to their use and application with examples.
- e) Explain the Borntrager's test and Modified Borntrager's test. Give the significance for each test.

5. Attempt any THREE of the following:

12

- a) Define and classify resin and resin combinations with examples.
- b) Describe the method of preparation of cotton fibre.
- c) Define with any two examples for each -
 - (i) Antitussive
 - (ii) Diuretics
 - (iii) Enzymes
 - (iv) Vitamin
- d) Assign the name of crude drug for following use with its chemical constituents. (Any two)
 - (i) Antioxytocic and galactogogue
 - (ii) Brain tonic
 - (iii) In the preparation of insect repellent coils and sticks.
- e) Mention the different methods used for drug adulteration with examples.

6. Explain the chemical tests for following crude drugs. (Any four):

- a) Asafoetida
- b) Pale Catechu
- c) Tragacanth
- d) Gelatin
- e) Benzoin
- f) Honey