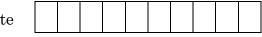
Total No. of printed pages = 4

BP 806 ET

Roll No. of candidate



2021

B.Pharm. 8th Semester End Term Examination

QUALITY CONTROL AND STANDARDIZATION OF HERBALS

(New Regulation)

(W.e.f. 2017-18)

Full Marks - 75

Time – Three hours

 $(20 \times 1 = 20)$

The figures in the margin indicate full marks for the questions.

Answer question No. 1 and any *six* from the rest.

GROUP - A

1. Multiple choice questions : (i) ICH was incepted in the year (a) 1990 (b) 1991 1992 (c) (d) 1993 In chromatography, the stationary phase can be _____ (ii) (a) Solid or liquid (b) Liquid or gas Solid only (c) (d) Liquid only (iii) Preparation method of crude drug for market depends on which factor? Chemical constituent (a) Climate condition (b)(c) Cultivation process (d) All above (iv) Extractive value of crude drug is evaluated to determine (a) Phytoconstituents present in crude drug

> (b) Organic substance present in crude drug

(c) Inorganic substance present in crude drug

Mucilage present in crude drug (d)

Which of the following is type of Column Chromatography (v)

- HPLC GC (a) (b)
- (c) Both (a) and (b) (d) HPTLC

[Turn over

(vi)	Which of the following is the objective of GAP?											
	(a)											
	(b)											
	(c)	To improve safety, quality and efficacy of finished product										
	(d)											
(vii)	Salkowski reaction is used to detect											
	(a)	Steriod	(b)	Tannin								
	(c)	Carbohydrate	(d)	Alkaloid								
(viii)	Ash	sh value of crude drug is evaluated to determine										
	(a)) Phytoconstituents present in crude drug										
	(b)	Organic substance present in crude drug										
	(c)	Inorganic substance present in crude drug										
	(d)	d) Mucilage present in crude drug										
(ix)		Which of the following is most commonly used adsorbent in chromatography?										
	(a)	Silica gel	(b)	Magnesium sulphate								
	(c)	Sodium acetate	(d)	Potassium Iodate								
(x)	Whi	Which one of the following is chemical marker?										
	(a)	Allin	(b)	Isoenzymes								
	(c)	DNA markers	(d)	None above								
(xi)	The topics included under ICH are											
	(a)	Quality	(b)	Efficacy								
	(c)	Safety	(d)	All								
(xii)	How	How does the liquid rise through the filter paper?										
	(a)	By means of capillary action										
	(b)	By means of gravitation force										
	(c)	Due to absorption mechanism										
	(d)	d) All above										
(xiii) On what factors does the Rf value of a compound depend?												
	(a)	Nature of the compound	(b)	Nature of the solvent								
	(c)	Temperature	(d)	All above								
(xiv)	The	The temperature maintained in super critical fluid extraction is										
	(a)	30°C	(b)	$31.06^{\circ}\mathrm{C}$								
	(c)	31.60°C	(d)	$30.06^{\circ}\mathrm{C}$								

	(xv)	Wat phy	ter is toconst	useful ituents	solvent	for	the	extraction	of	following	which			
		(a)	gum				(b)	tannin						
		(c)	volati	le oil			(d)	(a) and (b)						
	(xvi)	(xvi) Modern technique of isolation of phyto-constituent is ————												
		(a)	Supercritical fluid extraction											
		(b)	Ultrasound assisted extraction											
		(c)	(c) Microwave assisted extraction											
		(d) Flash chromatography technique												
	(xvi	(xvii) Which of the following is most polar compared to others?												
		(a)	Chlore	oform			(b)	Water						
		(c)	Ethyl	acetate			(d)	Pet. ether						
	(xvi	(xviii)Which of the following analytical procedure use to determine molecular weight of compound?												
		(a)	UV-V	IS spectro	oscopy		(b)	Mass spectro	omet	ry				
		(c)	NMR	spectrosc	ору		(d)	Raman spect	trosc	opy				
	(xix)) Rete	ention f	factor (R	f) in chroi	nato	graph	y is used for						
		(a)	Quant	titative p	urpose		(b)	Qualitative p	ourp	ose				
		(c)	Prepa	rative pu	rpose		(d)	None of thes	e					
	(xx)	Crude drugs should be stored at												
		(a)	Cool p	olace			(b)	Cool and dry	r plae	ce				
		(c)	Dry p	lace			(d)	Warm place						
		GROUP –B												
	Ans	Answer any <i>two</i> of the following: $(2 \times 10 = 20)$												
2.	(a)	Explain the various steps involved for the processing of crude drugs for												

- (b) Write short note on physical evaluation process of crude drugs.
- (c) Describe the general methods of preparation of plant extracts and their merits and demerits.

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market.

GROUP -- C

Answer any *seven* of the followings:

 $(7 \times 5 = 35)$

- 3. What is Pharmacovigilance? What are the functions of national pharmacovigilance (a) centres? (2+3)Write a note on laboratory safety and hygiene in processing of herbal (b) medicine as per GMP guideline. (5)(c) Explain why Stability testing of herbal products is necessary? Write short note on protocol involve for stability testing of herbal medicines. (2+3)Write in Details about the possible ways of Adulteration of Herbal Crude (d) drugs. (5)Discuss the different spectral methods of standardization of extracts. (e) (5)Write short notes on quantitative analysis of herbals preparations by HPLC. (f) (5)(g) Briefly discuss the regulatory requirements for the export of herbal drugs. (5)(h) Write in details about the Factors affecting the Quality of Herbal Drugs. (5)
 - Discuss the role of chemical and biological markers in standardization of herbal products.
 (5)