#### III. Short answers (Answer seven out of nine questions) (5x7=35)

- Draw a schematic diagram of a continuous culture 1 setup used in cell suspension culture. (5)
- Classify stomata based on their structural 2. arrangements? Give suitable diagram of each of them (3+2)
- Write the basic chemical structure of flavonoids? 3. How phenolic compounds are classified? (2+3)
- Write about the biological source, solubility profile, 4. chemical constituents, chemical tests and use of castor oil. (5)
- Write a short note on morphological and 5. taxonomical method of crude drug classification. (2.5+2.5)
- What do you mean by primary metabolites and 6. secondary metabolites? What are the different Physical evaluation parameters in crude drug evaluation? (2+3)
- What is stomatal number, stomatal index, vein 7. islets and vein islet termination number? What are the numbers of divisions in a stage micrometer scale? (4+1)
- 8. What are the four fundamentals laws of Homeopathy? Illustrate about Laws of similar and Direction of cure mentioned in homeopathic system of medicine. (2+3)
- Write a short note on factors affecting cultivation 9. of crude drugs. (5)

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2023/EVEN/13/38/BP-405/011

## **B** Pharm Even Semester Examination, September, 2023

### PHARMACEUTICAL SCIENCES

### (4th Semester)

#### **Course No: BP-405T**

(Pharmacognosy and Phytochemistry-I- Theory)

#### FM: 75 Time: 3 Hours

The figures in the right margin indicate full marks for the question

I.	<b>A</b> .	Multiple Choic	e quest	ions	1x10=10
1.	An	example of sapo	nin glyc	coside is	
	a.	Liquorice	b.	Nuxvom	ica
	c.	Ashwagandha	d.	All the	options
2.	If th calle	ne sugar is glu ed	cose, tł	nen the	glycoside is
	a.	Glucoside	b.	Rhamno	oside
	c.	Digitoxoside	d.	None	
3.	Dipł	nenylpropane rin	g is the	e basic	molecule of
	a.	Flavonoids	b.	Alkaloid	ls
	c.	Volatile oils	d.	All the	options
4.	Swel cont	lling index is re cent	lated to	determi	ne the
	a.	Mucilage	b.	Gum	
					Turn Over

- c. Ash d. None
- 5. The moisture content of crude drug can be determined by heating it at
  - a. 105°C b. 160°C
  - c. 65°C d. 90°C
- 6. The major role of Auxin involves
  - a. Fruit development
  - b. Cell and tissue development
  - c. loss of leaves
  - d. Both a and c
- 7. The phenolic compounds present in an extract when reacted with lead acetate solution yields\_\_\_\_\_ precipitate.
  - a. Blue colour b. Yellow colour
  - c. Purple colour d. White colour
- 8. A saturated picric acid solution in cold water used for detection of alkaloids is known as
  - a. Wagner's reagent
  - b. Hager's reagent
  - c. Mayer's reagent
  - d. Dragendorff's reagent
- 9. Example of a very harmful adulterant is
  - a. Presence of vegetative matter
  - b. Soil in grains

- c. Stones in drug
- d. Lead particles in opium
- 10. Organoleptic evaluation includes
  - a. Chemical nature
  - b. Impressions on organs of senses
  - c. Pharmacological parameters
  - d. Histological characters
- I. B. Objective type 2x5=10
- 1. Define the term Pharmacognosy.
- 2. What are the crude drugs obtained from mineral sources?
- 3. What are the crude drugs acting on gastrointestinal system?
- 4. How flavonoids are classified?
- 5. What do you mean by Tridoshas in Ayurveda?

# II. Long answers (Answer two out of three questions) (2×10=20)

- Classify different types of adulteration. What do you mean by chemo-taxonomical classification? How to distinguish between direct and indirect adulteration? (2.5+2.5+5)
- 2. What are the major disciplines of Ayurveda? How many ways crude drugs can be classified? (5+5)
- 3. What are the physicochemical properties of alkaloids? What do you mean by Siddha system of medicine? (5+5)