

Programme: B. Pharm

Course: Pharmacognosy and Phytochemistry I

Course Code: BP405T

Enrolment no. _____

Full Marks: 75

Time: 3 Hrs.

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
Section I				
1	Objective Type Questions			
	<p>i. The Borntrager's test is used to detect: a) Alkaloids b) Tannins c) Anthraquinone glycosides d) Saponins</p> <p>ii. Which one of the following is a property of tannins? a) Sweet taste b) Bitter and astringent taste c) Salty taste d) No taste</p> <p>iii. Which system of medicine uses 'Materia Medica' as its pharmacopoeia reference? a) Ayurveda b) Homeopathy c) Unani d) Siddha</p> <p>iv. One of the following describes the shape of bark – a) Quill b) Short c) Smooth d) Squill</p> <p>v. Temperature and light are ----- factor affecting cultivation – a) Exogenous b) Internal c) Indigenous d) Endogenous</p>	CO1	Remember	1 x 20 = 20
	<p>vi. The content of hydroxy methyl furfural is used to detect the adulteration in: a) Honey b) Wool fat c) Acacia d) Gelatin</p> <p>vii. The father of plant tissue culture is: a) Haberlandt b) Gautheret c) Skoog d) Murashige</p> <p>viii. The most commonly used culture medium for plant tissue culture is: a) MS medium b) Gamborg's medium c) White's medium d) B5 medium</p> <p>ix. Which type of culture is used for the production of secondary metabolites? a) Protoplast culture b) Embryo culture c) Suspension culture d) Meristem culture</p> <p>x. Which plant hormone promotes shoot proliferation? a) Auxin b) Cytokinin c) Ethylene d) Gibberellin</p>			
	<p>xi. An edible vaccine is: a) Injected b) Inhaled c) Eaten d) Drunk</p> <p>xii. Which of the following is a hallucinogenic plant product? a) Hemp b) Casein c) Agar d) Cotton</p> <p>xiii. Which marine drug is known for its anticancer properties? a) Ara-C b) Bromelain c) Agar d) Acacia</p> <p>xiv. Honey is primarily composed of: a) Proteins b) Enzymes c) Lipids d) Sugars</p> <p>xv. Wool fat is also called: a) Lanolin b) Linseed oil c) Cod liver oil d) Ghee</p>			
	<p>xvi. Which of the following is NOT a primary metabolite? a) Protein b) Enzyme c) Alkaloid d) Carbohydrate</p> <p>xvii. The enzyme used for clot dissolution is: a) Pepsin b) Papain c) Urokinase d) Casein</p> <p>xviii. Gelatin is obtained from: a) Microbes b) Plants c) Animal collagen d) Seaweeds</p> <p>xix. Acacia is mainly composed of: a) Fats b) Waxes c) Polysaccharides d) Alkaloids</p> <p>xx. Which of the following is a carbon source in plant tissue culture medium? a) Glucose b) Sucrose c) Fructose d) All of the above</p>			
Section II				
2. Short Answer type questions.				
a	Describe any two methods used in the evaluation of natural drugs: organoleptic and microscopic methods.	CO1	Understand	7 x 5 = 35
b	Explain the term 'mutation' in plants and explain how the one way mutations can be induced for medicinal plant improvement.	CO2	Apply	
c	Discuss in detail about basic methodology of tissue culture with diagram.	CO3	Understand	
d	Explain the role of pepsin in pharmaceutical manufacturing and its importance in digestion-related therapies.	CO5	Understand	
e	Discuss in detail about Hairy Root culture.	CO3	Remember	
	Discusses the role of Resins and volatile oils in pharmaceutical industries.	CO4	Remember	

f	or			2 x 10 = 20
	Illustrate the common biosynthetic pathways involved in the synthesis of primary metabolites and secondary metabolites	CO4	Apply	
g	Outline the preparation, chemical constituents, and pharmaceutical uses of gelatin derived from animal sources.	CO5	Understand	
	or			
	Explain the chemical composition and pharmaceutical uses of castor oil, highlighting its role as a lipid-based aid.	CO5	Understand	
Section III				
Long Answer Type questions				
3	Discuss the importance of conserving medicinal plants. Analyze the challenges faced in conservation efforts and propose strategies to overcome these challenges, highlighting the roles of both in-situ and ex-situ conservation methods.	CO2	Analyze	
	or			
4	Elaborate the concept of crude drug cultivation and critically discuss the various factors that influence its practice.	CO2	Analyze	
	Evaluate the role of quantitative microscopy in quality control of crude drugs. Analyze the principles and applications of lycopodium spore method and leaf constants, and explain how camera Lucida assists in accurate drug identification.	CO1	Evaluate	
	or			
	Discuss various classification of crude drugs based on Pharmacognosy and provide their relevant examples	CO1	Evaluate	

Course Outcomes (CO):

CO1: Identify, evaluate and classify various plant sources used in traditional and modern medicine.

CO2: Understanding the methods involved in Cultivation, Collection, Processing and storage of drugs of natural origin

CO3: Learn various techniques for conservation of medicinal plants

CO4: Exploring the cultural, historical, and ethno botanical aspects of medicinal plants, including their traditional uses and indigenous knowledge.

CO5: Acquire knowledge about the biological source, chemical nature and uses of drugs of natural origin.