

# Question Paper

Exam Date & Time: 20-May-2024 (10:00 AM - 01:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

Pharmacognosy and Phytochemistry I (Theory) [PCO-BP405T-S3]

Marks: 75

Duration: 180 mins.

### I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

- 1) Who is called the Father of Medicine? (1)
- [Dioscorides](#)  
[Hippocrates](#)  
[Theophrastus](#)  
[Charaka](#)
- 2) Which hormone promotes bolting in plants? (1)
- [Gibberellin](#)  
[Ethylene](#)  
[Abscisic acid](#)  
[Jasmonates](#)
- 3) The exponential growth of cells in plant tissue culture is seen in. (1)
- [Steady Phase](#)  
[Log phase.](#)  
[Decline phase.](#)  
[Lag phase](#)
- 4) Flavonoids are derivatives of which of the following compounds? (1)
- [Benzo- \$\alpha\$ -pyrone](#)  
[Benzo- \$\beta\$ -pyrone](#)  
[Benzo- \$\gamma\$ -pyrone](#)  
[Benzo- \$\delta\$ -pyrone](#)
- 5) Crude drugs which have a definite cellular structure are referred to as (1)
- [Unorganised drug](#)  
[Synthetic drug](#)  
[Organised drug](#)  
[All of the above.](#)
- 6) Regarding resins, which of the following statements is correct? (1)
- [Resins are always water-soluble.](#)  
[Resins are primarily composed of carbohydrates.](#)  
[Resins are insoluble in water but soluble in alcohol.](#)

[Resins are exclusively of animal origin.](#)

- 7) Metabolic waste and growth of products of pathogenic organisms in or on the body is an example for (1)

[Ingestant allergen](#)

[Injectant allergen](#)

[Infectant allergen](#)

[Infestant allergen](#)

- 8) The Benzyl isoquinoline alkaloid of Opium is (1)

[Morphine](#)

[Codeine](#)

[Thebaine](#)

[Papaverine](#)

- 9) Example for adulteration by addition of worthless heavy materials or harmful adulterants (1)

[Pieces of amber coloured glass with colophony.](#)

[Pieces of limestone are found in asafoetida](#)

[Addition of rodent fecal matter to cardamom seed](#)

[All of the above](#)

- 10) Which of the following statements is true regarding the Unani system of medicine? (1)

[Unani medicine originated in China.](#)

[Unani medicine is based on the principles of Ayurveda.](#)

[Hippocrates is considered the father of Unani medicine.](#)

[Hahnemann is acknowledged as the originator of the Unani system of medicine.](#)

- 11) Why we need Plant Tissue Culture? (1)

[Ruthless exploitation of forests and other sources](#)

[For disease resistant and pest resistant plants](#)

[For production of high yielding varieties](#)

[All the above](#)

- 12) Which of the following is an example of balsamic resin (1)

[Rosin](#)

[Asafoetida](#)

[Benzoin](#)

[Ginger](#)

- 13) Water soluble proteins are taken into consideration in. (1)

[Descriptive Chemotaxonomy.](#)

[Dynamic Chemotaxonomy.](#)

[Serotaxnomy](#)

[DNA Hybridization](#)

- 14) Which of the following substances is a Proto alkaloid? (1)

[Morphine](#)

[Quinine](#)

[Ephedrine](#)

[Caffeine](#)

- 15) Which carbohydrate is found in the cell walls of plants and provides structural support (1)
- [Glycogen](#)  
[Sucrose](#)  
[Cellulose](#)  
[Lactose](#)
- 16) Determination of Ash value of a crude drug is. (1)
- [Macroscopical evaluation](#)  
[Chemical evaluation](#)  
[Physical evaluation](#)  
[Biological evaluation](#)
- 17) Which family does Tragacanth belong to? (1)
- [Gelidiaceae](#)  
[Sterculiaceae](#)  
[Euphorbiaceae](#)  
[Leguminosae](#)
- 18) Dolastatin is a marine. (1)
- [Antimicrobial drug](#)  
[Cardiovascular drug](#)  
[Anticancer drug](#)  
[Antibiotic drug](#)
- 19) Pigeons are used to test. (1)
- [Cardiotonic activity](#)  
[Oxytocin activity](#)  
[Muscle relaxant activity](#)  
[Diphtheria toxoid activity](#)
- 20) Which of the following oils is categorise as a drying oil (1)
- [Linseed oil](#)  
[Olive oil](#)  
[Peanut oil](#)  
[Cotton seed oil](#)

## II Long Answers

**Answer all the questions.**

- 1) A. Explain hairy root culture and crown gall tumour tissue culture. (10)  
 B. With graph, explain growth pattern of plant tissue culture
- 2) Discuss the sexual and asexual methods of cultivating medicinal plants, highlighting their respective advantages, disadvantages, and examples. (10)

## III Short Answers

**Answer all the questions.**

- 1) Define Allergy. Explain classification of allergens on the basis of their path of entry into the body. (5)
- 2) Discuss the collection process of crude drugs, including factors controlling cultivation, and time of each parts collection, with examples (5)
- 3) Describe Cotton as a surgical fibre, including its source, method of preparation, chemical constituents and uses (5)
- 4) Define Adulteration and reasons for the same. Briefly explain direct or intentional methods of (5)

adulteration.

- 5) Describe Alkaloids with reference to the broad definition, general properties and two identification tests (2+2+1) (5)
- 6) Define Pharmacognosy. Describe scope and development of Pharmacognosy (5)
- 7) What are the main aspects of homeopathy, including its formulation, dynamization, and the process of drug proving? (5)

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