

Exam Date & Time: 07-Mar-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Pharmacognosy and Phytochemistry II [PCO-BP504T - S2]

Marks: 75

Duration: 180 mins.

I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

1) Hydroxy methyl glutaryl CoA on reduction gives

1) Geranyl pyrophosphate	2) Farnesyl pyrophosphate	3) Mevalonic acid	4) Acetic acid
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(1)

2) Atropine is

1) (+) Hyoscyamine	2) (-) Hyoscyamine	3) (±) Hyoscyamine	4) (+) Hyoscine
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(1)

3) Following is the detector works on the principle of collection of ions

1) Solid scintillation counter	2) Geiger-Muller counter	3) Liquid scintillation counters	4) Multi-pixel photon counters
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(1)

4) Hydrolysable tannins are also known as

1) Catechol tannins	2) Plobaphenes	3) Pyrogallol tannins	4) Proanthocyanidins
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(1)

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5) Quinine gives blue fluorescence with oxygenated acids due to

1) Presence of acetoxy group	2) Presence of ethoxy group	3) Presence of carboxy group	4) Presence of methoxy group
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(1)

6) Isopentenyl Pyrophosphate and its isomer Dimethyl allyl pyrophosphate serves as the basis for the biosynthesis of

1) Volatile oils	2) Steroids	3) Carotenoid pigments	4) All of the above
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(1)

7) Union of two molecules of phenyl propene derivatives are known as

1) Naphthaquinones	2) Flavonoids	3) Tannins	4) Lignans
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(1)

8) Following compound answers Salkowski test

1) Sennosides	2) Reserpine	3) Glycyrrhizin	4) Rutin
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(1)

9) Mentha piperita belongs to the family

1) Myrtaceae	2) Rubiaceae	3) Labiatae	4) Poaceae
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(1)

10) Following is the detector works on the principle of collection of ions

1) Solid scintillation counter	2) Geiger-Muller counter	3) Liquid scintillation counter	4) Multi-pixel photon counter
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(1)

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11) Alkaloidal bases which do NOT contain O₂ in their structures are

1)	Solids		2)	Semisolids		3)	Liquids		4)	Gases		(1)
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12) Etoposide is semisynthetic derivative of

1)	Vinblastine		2)	Podophyllotoxin		3)	Antimisin		4)	Taxol		(1)
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13) Raymond's test signifies

1)	Desoxy sugar		2)	5-membered unsaturated lactone ring.		3)	Steroidal nucleus		4)	Activated methylene group at C-21 in the lactone		(1)
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14) Sennoside is isolated as calcium salt for

1)	Increasing solubility		2)	Increasing activity		3)	Increasing stability		4)	All of the above		(1)
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15) Benzyl isoquinoline alkaloid of Opium is

1)	Morphine		2)	Codeine		3)	Thebaine		4)	Papaverine		(1)
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16) Keller-Kiliani test is used for the identification of

(1)

1)	Digitoxose	2)	Digoxin	3)	Digitoxigenin	4)	Gitoxigenin
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17) Flavonoids are derivatives of

1)	Benzo- α -pyrone	2)	Benzo- β -pyrone	3)	Benzo- γ -pyrone	4)	Benzo- δ -pyrone	(1)
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18) Dioscin on hydrolysis gives

1)	Diosgenin + 3 molecule of Glucose	2)	Diosgenin + 2 molecules of Glucose + 1 molecule of Rhamnose	3)	Diosgenin + 1 molecule of Glucose + 1 molecule of Rhamnose	4)	Diosgenin + Glucose + 2 molecules of Rhamnose	(1)
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19) Vincristine is obtained from

1)	Catharanthus roseus	2)	Plectranthus barbatus	3)	Artemisia annua	4)	Taxus baccata	(1)
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20) What is the radiations frequency of Microwaves

1)	0.1 GHz to 300 GHz	2)	0.1MHz to 300 GHz	3)	0.3 MHz to 300 MHz	4)	0.3 GHz to 300 GHz	(1)
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II Long Answers

Answer all the questions.

- 1)
 - A. What are Volatile oils? Describe the Enfleurage, Ecuelle and SCF extraction methods (1+1+1+2)
 - B. With neat labelled diagram give the microscopical characters (TS and powder) of Fennel (3+2)
 (10)
- 2) Explain Gas liquid chromatography and High performance liquid chromatography with diagram as separation and isolation technique for the phytoconstituents. (10)

III Short Answers

Answer all the questions.

- 1) Give the biological source and explain the industrial production, estimation and utilization of Digitoxin (5)
- 2) Give the Isoprenoid pathway and its significance (5)
- 3) Explain and give the significance of Borntrager's, Gerrard's, and Muroxide tests (5)
- 4) Give the source, active constituents and uses of Dioscorea and Aloes (5)
- 5) Give the biological source, explain the isolation and analysis of Quinine (5)
- 6) Explain Maceration method of extraction and factors affecting the same. (5)
- 7) Give the biological source, method of preparation and uses of Colophony (5)

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