

Question Paper

Exam Date & Time: 30-Nov-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Pharmacognosy and Phytochemistry II [PCO-BP504T]

Marks: 75

Duration: 180 mins.

I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

- 1) Unstable isotopes decay with emission of (1)
- [Fluorescence](#)
- [Radiation](#)
- [Phosphorescence](#)
- [Luminescence](#)
- 2) C₅H₈ is the formula of which unit? (1)
- [Isoprene](#)
- [Alkaloid](#)
- [Glycoside](#)
- [Tannin](#)
- 3) Mentha belongs to the family (1)
- [Leguminosae](#)
- [Laminariaceae](#)
- [Labiatae](#)
- [Liliaceae](#)
- 4) Which of the following is used to treat diabetes? (1)
- [Catechu](#)
- [Cinchona](#)
- [Clove](#)
- [Pterocarpus](#)
- 5) Chloroform extract of pale catechu gives green colour due to the presence of (1)
- [Gambier](#)
- [fluorescin](#)
- [Chlorophyll](#)
- [Catechu red](#)
- [Abietic acid](#)
- 6) Modified Borntrager's test is used for the identification of which type of glycosides? (1)
- [-C-](#)
- [-O-](#)
- [-N-](#)
- [-S-](#)

7) Which of the following is NOT the adulterant of Opium? (1)

[Powdered](#)

[capsules](#)

[Morphine](#)

[Gum](#)

[Sugary fruits](#)

8) Cardenolides give positive for which of the following test? (1)

[Kedde's](#)

[Shinoda](#)

[Murexide](#)

[Thalleoquin](#)

9) The leaves of Digitalis is also called as (1)

[Foxglove](#)

[Mulethi](#)

[Variyali](#)

[Deadly night shade](#)

10) Following is the pentacyclic triterpenoid (1)

[Gitoxin](#)

[Glycyrrhizin](#)

[Digoxin](#)

[Diosgenin](#)

11) Citral is obtained from (1)

[Coleus forskohlii](#)

[Curcuma longa](#)

[Catheranthus roseous](#)

[Cymbopogon](#)

[flexuosus](#)

12) Anhydrous sodium sulphate is used in the isolation of caffeine (1)

[To convert tannins to their salt](#)

[Precipitate tannins](#)

[For removing traces of water from organic solutions](#)

[To remove pigments as decolorizing agent](#)

13) Menthol is a (1)

[Monocyclic monoterpene alcohol](#)

[Monocyclic diterpene alcohol](#)

[Monocyclic triterpene alcohol](#)

[Monocyclic sesquiterpene alcohol](#)

14) Artesunate is used as (1)

[Anticancer](#)

[Antihypertensive](#)

[Antimalarial](#)

[Antidiabetic](#)

15) The dihydro indole part of Vinblastine is (1)

[Catharanthine](#)

[Leurosidine](#)

[Leurosine](#)

[Vindoline](#)

16) Which of the following is called European yew? (1)

[Taxus brevifolia](#)

[Taxus baccata](#)

[Taxus](#)

[yunnanensis](#)

[Taxus wallichiana](#)

17) Following compound is used as anti-obesity agent (1)

[Quinine](#)

[Reserpine](#)

[Curcumin](#)

[Foskolin](#)

18) The solvent used for extraction is known as..... (1)

[Distillate](#)

[Extract](#)

[Marc](#)

[Menstruum](#)

19) IR spectra gives an conformational evidence of (1)

[Number of carbon atoms](#)

[Number of hydrogen atoms](#)

[Functional groups](#)

[Molecular weight](#)

20) Microwaves are non-ionizing electromagnetic waves of frequency between (1)

[200 Volt to 500 Volt](#)

[300 mAh to 500 mAh](#)

[300 MHz to 300 GHz](#)

[300 Ohm to 500 Ohm](#)

II Long Answers

Answer all the questions.

- 1) Define, classify based on heterocyclic ring and give the various identification tests of Alkaloids. Add a note on Opim and its varieties. (10)
- 2) Give the biological source and explain the industrial production, identification tests and utilization of diosgenin. (10)

III Short Answers

Answer all the questions.

- 1) How terpenoids are biosynthesized in plants? Explain with reactions. (5)
- 2) What are mutant strains and give their use in proving biogenetic pathways with examples. (5)
- 3) Give the source, chemistry and industrial applications of Digitalis purpurea. Add a note on procedure for Keller-kiliani test. (5)
- 4) Write the source, explain the isolation, identification tests for Quinine. (5)
- 5) With the help of neat labelled diagram explain the column chromatography for separation of phytoconstituents. (5)

- 6) Briefly discuss percolation process with its merits and demerits. (5)
- 7) Discuss various factors affecting microwave-assisted extraction. (5)

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