

MANIPAL ACADEMY OF HIGHER EDUCATION
END SEM THEORY EXAMINATION (Make-up), JANUARY 2023

9.00am to 12.00Noon, 24.012023

PHARMACOGNOSY AND PHYTOCHEMISTRY II PCO-BP504T

BPharm: Semester V

Marks: 75

- Q No. I MCQ 1MX20 = 20
- 1 Shikimic acid pathway is the key intermediate from carbohydrate for the biosynthesis of
a) Phenyl propane derivatives b) Lipids c) Steroids d) Lactic acid
 - 2 Major source of Citral is
a) Lemon grass oil b) Mentha oil c) Clove oil d) Coriander oil
 - 3 Following is the detector works on the principle of collection of ions
a) Solid scintillation counter b) Geiger-Muller counter
c) Liquid scintillation counters d) Multi-pixel photon counters
 - 4 Sennoside A and B are dimeric glycosides of
a) Aloe-emodin b) Rhein c) Emodin d) Chrysophanol
 - 5 Following is a diferruloylmethane compound
a) Quinine b) Reserpine c) Taxol d) Curcumin
 - 6 Prephenic acid on dehydration and decarboxylation leads to the formation of
a) Anthranillic acid b) Phosphoribosyl pyrophosphate
c) Phenyl puruvic acid d) Tryptophan
 - 7 Cyanogenetic glycosides are the derivatives of
a) Acetonitrile b) Benzonitrile c) Mandelonitrile d) Carbonitrile
 - 8 Rutin is a
a) Alkaloid b) Volatile oil c) Flavonoid d) None of these
 - 9 Menthol is a
a) Monocyclic monoterpene alcohol b) Monocyclic diterpene alcohol
c) Monocyclic triterpene alcohol d) Monocyclic sesqiterpene alcohol
 - 10 Isopentenyl pyrophosphate and its isomer Dimethylallyl pyrophosphate serves as the basis for the biosynthesis of
a) Volatile oils b) Steroids c) Carotenoid pigments d) All of these

- 11 Following is purely pathological resin
a) Colophony b) Asafoetida c) Myrrh d) Benzoin
- 12 Following phytoconstituent is used as anticancer drug
a) Forskolin b) Taxol c) Atropine d) Quinine
- 13 Chemically Caffeine is
a) 1,2,7-trimethyl xanthine b) 1,3,7-trimethyl xanthine
c) 1,4,7-trimethyl xanthine d) 1,5,7-trimethyl xanthine
- 14 Viblastine is obtained from
a) *Podophyllum hexandrum* b) *Taxus baccata*
c) *Catharanthus roseous* d) *Curcuma longa*
- 15 Flavonoids are derivatives of
a) Benzo- α -pyrone b) Benzo- β -pyrone
c) Benzo- γ -pyrone d) Benzo- δ -pyrone
- 16 Enterodiol and enterolactone can mimic some of the effects of estrogens. These terms are associated with following group of constituents
a) Flavonoids b) Naphtaquinones c) Lignans d) Iridoids
- 17 D-Linalool is the chief constituent of the following drug
a) Cassia b) Fennel c) Coriander d) Clove
- 18 Solubility of the sennoside is optimum in water miscible organic solvents having water content
a) 10% b) 20% c) 30% d) 40%
- 19 Following is a semisynthetic derivative of Podophyllotoxin
a) Artisunate b) Etoposide c) Froskolin d) Vinblastine
- 20 IR spectra gives a conformational evidence of
a) Number of carbon atoms b) Number of hydrogen atoms
c) Functional groups d) Molecular weight

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LONG ANSWERS 2X10M = 20

- 1 A. What are volatile oils? Describe the enfleurage, ecuelle and SCF extraction methods (1+1+1+2)
B. Give the source, active constituents and uses of Clove and Fennel
- 2 Describe in detail the HPTLC and HPLC as a method for the separation and identification of phytoconstituents

SHORT ANSWERS 7X5M = 35

- 1 Explain the industrial production, estimation and utilization of Digitoxin
- 2 Give the Isoprenoid pathway and its significance
- 3 Give the biological source, identification test and utilization of
a) Atropine b) Sennosides
- 4 Give an account of Phenyl propanoids and Flavonoids with their identification test (4+1)
- 5 Give the biological source, explain the isolation, identification and analysis of Quinine
- 6 Explain Maceration method of extraction with its advantage, disadvantage and factors influence the same
- 7 Give the biological source, method of preparation and uses of Benzoin