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**BP 504 T**

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**B.Pharm 5<sup>th</sup> Semester End-Term Examination (Regular)**

**PHARMACOGNOSY AND PHYTOCHEMISTRY - II**

Full Marks – 75

Time – Three hours

The figures in the margin indicate full marks  
for the questions.

1. Answer the following : (MCQ) (20 × 1 = 20)
- (i) Which of the following drug is steroidal saponin?
- (a) Digitalis (b) Liquorice
- (c) Senna (d) Dioscorea
- (ii) Thalleoquine test is used for identification of:
- (a) Atropine (b) Vincristine
- (c) Quinine (d) Strychnine
- (iii) Murexide test is for
- (a) Indole Alkaloids (b) Tropane Alkaloids
- (c) Purine Alkaloids (d) Steroidal Alkaloids
- (iv) Forskolin is chemically
- (a) Monoterpene (b) Diterpene
- (c) Triterpene (d) Tetraterpene
- (v) Artemisinin is chemically
- (a) Tropolone (b) Diterpene lactone
- (c) Tetraterpene lactone (d) Sesquiterpenelactone

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- (vi) Glycyrrhetic acid is a:
- (a) Pentacyclic triterpenoid aglycone
  - (b) Tricyclic triterpenoid aglycone
  - (c) Pentacyclic triterpenoid glycone
  - (d) None of the above
- (vii) Shinoda test is the test performed for:
- (a) Glycosides
  - (b) Alkaloids
  - (c) Triterpenoids
  - (d) Flavonoids
- (viii) Diosgenin is isolated from
- (a) Bark
  - (b) Leaves
  - (c) Tubers
  - (d) Stems
- (ix) Hodgkin's disease is treated with
- (a) Digoxin
  - (b) Vincristine
  - (c) Vinblastine
  - (d) Taxol
- (x) Paclitaxel is
- (a) Taxol
  - (b) Baccatin
  - (c) Acetylpaclitaxel
  - (d) Taxenes
- (xi) *Aleo ferox* is commercially known as
- (a) Cape aloe
  - (b) Barbados aloe
  - (c) Zanzibar aloe
  - (d) Indian aloe
- (xii) Senna D is a
- (a) Trans isomer
  - (b) Meso isomer
  - (c) Cis isomer
  - (d) Racemic mixture
- (xiii) Borax test detects
- (a) Sterols
  - (b) Barbalion
  - (c) Coumarin
  - (d) Isothiocyanate

- (xiv) Taxol is belongs to
- (a) True alkaloid (b) Pseudo alkaloid  
(c) Proto alkaloid (d) None
- (xv) Fatty acid oxidation is also known as
- (a) Glycogenesis (b) Beta oxidation  
(c) HMP shunt (d) Chemosynthesis
- (xvi) Chromatographic separation of Vincristine is carried out in
- (a) Silica Gel column (b) Alumina column  
(c) 60 F254 silica gel column (d) none of the above
- (xvii) Which of the following is a mydriatic agent:
- (a) Hyoscyamine (b) Atropine  
(c) Cinchonine (d) All of the above
- (xviii) Which drug is used against rheumatoid arthritis as a hormone replacement therapy
- (a) Senna (b) Forskoin  
(c) Vincristine (d) Dioscorea
- (xix) ————— is an important precursor for the synthesis of corticosteroids
- (a) Digitoxin (b) Diosgenin  
(c) Atropine (d) Vincristine
- (xx) The family of *Podophyllum hexandrum* is:
- (a) Lamiaceae (b) Loganaceae  
(c) Berberidaceae (d) Scrophulariaceae

2. Answer any seven questions. (7 × 5 = 35)

- (a) Enumerate the significance and applications of tracer techniques.
- (b) Write about the Column chromatography that are employed in the purification of crude drugs.
- (c) Define alkaloid. Write down the classification, chemical test and properties of alkaloid.
- (d) Discuss the isolation and identification of Glycyrrhetic acid and Rutin.



- (e) Discuss the industrial production, estimation and utilization of Atropine.
- (f) Write down the significance of electrophoresis in the isolation, purification and identification of crude drugs.
- (g) Write a note on industrial production, estimation and analysis of Caffeine
- (h) Enumerate the advantages and disadvantages of conventional methods of extraction.
- (i) Write down the composition, chemistry, biosources, therapeutic uses and commercial applications of Senna.

3. Answer any *two* questions. (2 × 10 = 20)

- (a) Explain shikmic acid pathway with its significance.
  - (b) Discuss the utilization of radioactive isotopes in the investigation of Biogenetic studies.
  - (c) Give an account of Fennel and Opium with reference to its biological source, geographical source, morphology, microscopy, chemical constituents and uses.
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