

Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/B.Pharm (N)/SEM-7/PT-702/2011-12**

**2011**

**PHARMACOGNOSY**

Time Allotted : 3 Hours

Full Marks : 70

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**GROUP – A**

**( Multiple Choice Type Questions )**

1. Choose the correct alternatives for any *ten* of the following :

10 × 1 = 10

- i) Ascaridole is present in
  - a) Arnica oil
  - b) Rose oil
  - c) Chenopodium oil
  - d) None of these.
  
- ii) Tryptophan is used as precursor compound in the biosynthesis of
  - a) quinine
  - b) digitoxin
  - c) umbelliferone
  - d) hecogenin.

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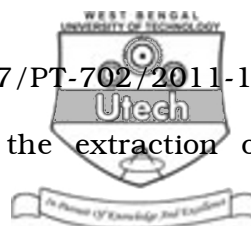
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- iii) The products of shikimic acid pathway are
- aliphatic amino acids
  - aromatic amino acids
  - heterocyclic amino acids
  - essential amino acids.
- iv) Mitchell reagent is used to identify
- Alkaloid
  - Steroid
  - Tanin
  - None of these.
- v) Sennoside *D* contains
- two rhein moieties
  - two aloe emodin moieties
  - one aloe emodin and one rhein moieties
  - one glucose and one fructose moieties.
- vi) Iodoplatinate reagent is intended for detection of
- Bioflavonoids
  - Coumarins
  - Diterpenoids
  - Alkaloids.
- vii) An example of apocarotenoid is
- $\gamma$ -carotene
  - Lycopene
  - All-trans-retinol
  - $\alpha$ -Tocopherol.
- viii) The biogenetic precursor of reserpine is
- Phenyl alanine
  - Tyrosine
  - Tryptophan
  - Lysine.
- ix) With nitric acid which one will give orange red colour ?
- Morphine
  - Codeine
  - Papaverine
  - Reserpine.

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- x) Which is the suitable solvent for the extraction of quaternary alkaloids ?
- a) Benzene                                  b) Chloroform  
c) Water                                      d) Tubocurarine.
- xi) Keller-Killiani test is performed for the identification of
- a) Anthraquinone glycoside  
b) Cardiac glycoside  
c) Saponin glycoside  
d) Polyphenols.
- xii) *n*-Butanol : Acetic acid : Water ( BAW ) is a solvent system of TLC for
- a) Flavonoids                                b) Volatile oils  
c) Alkaloids                                  d) Glycosides.

**GROUP – B**

**( Short Answer Type Questions )**

Answer any *three* of the following.                  3 × 5 = 15

2. Write a note on cardioactive agents from marine sources.
3. What is the chemical nature of artemisinin ? Indicate the structure and two uses of artemisinin.                   $1\frac{1}{2} + 1\frac{1}{2} + 2$
4. Explain the phytochemical screening of polyphenolic compounds.
5. Write down the biosynthesis and pharmacological uses of Ephedrine.
6. Explain the factors affecting the growth of medicinal plants.

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**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.

3 × 15 = 45

7. What are glycosides ? Write a short note on cardiac glycosides. Discuss the biosynthesis of digitoxin and digoxin.
8. Define isoprene rule. Explain with example. What is the difference between terpene and terpenoids. How are diterpene, sesquiterpene, triterpene, tetraterpene produced from monoterpene ? Differentiate between  $\alpha$ -carotene and  $\beta$ -carotene. Mention three uses of eugenol.  

1 + 3 + 2 + 4 + 3 + 2
9. Explain the chemistry and biogenesis of atropine. Explain the pharmacological uses of atropine. 12 + 3
10. Explain the general method of plant tissue culture. Give the list of nutrients required for plant tissue culture. 5 + 10
11. Write a note on Herbal cosmetics. Explain the role of herbs used in cosmetics with the help of examples of herbs used in Hair care and skin care cosmetics.

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