



Name : .....

Roll No. : .....

Invigilator's Signature : .....

**CS/B.PHARM(N)/SEM-7/PT-702/2012-13**  
**2012**  
**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) Alkaloids present as the Salts of meconic acid are
- a) Opium alkaloids                      b) Vinca alkaloids
- c) Quinoline alkaloids                  d) Tropane alkaloids.
- ii) Which of the following is the precursor molecule for the bio-synthesis of Quinoline alkaloids ?
- a) Tryptophan                              b) Lysine
- c) Phenyl alanine                         d) Tyrosine.
- iii) Shinoda test is done for the detection of
- a) Alkaloid                                  b) Terpenoids
- c) Flavonoids                                d) Glycosides.

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- iv) Quinidine is used as
- a) Anti-arrhythmic                      b) Anti-malarial
- c) Analgesic                                d) anti-cancer.
- v) Alkaloid Salts are soluble in
- a) Organic solvents                      b) Water
- c) *n*-Hexane                                d) Pet-ether.
- vi) The Somaclonal variation of plant cells are caused due to
- a) Mutation                                b) Cyto-differentiation
- c) Habituation of Callus                d) Polyploidy.
- vii) Which Anthraquinone is initially formed in young seedlings of Senna ?
- a) Rhein                                      b) Aloe-emodin
- c) Chrysophanol                         d) dianthrone.
- viii) Endocrocin is the precursor of
- a) Anthraquinone                        b) Cardiac
- c) Bitter                                      d) Flavones glycoside.
- ix) Which of the following fertilizers is useful for bringing early maturity of crops ?
- a) Nitrogen                                 b) Potassium
- c) Sulphur                                 d) Phosphorus.
- x) What is the daily requirement of Vitamin A for Adults ?
- a) 6000-8000 I.U                        b) 1500 I.U.
- c) 5000 I.U.                                d) 3000 I.U..





**GROUP – C**

**( Long Answer Type Questions )**

Answer any *three* of the following.  $3 \times 15 = 45$

7. a) Define Glycoside.  
b) Explain different methods of classification of Glycosides.  
c) Give the specific chemical tests to identify Anthraquinone Glycoside and Cardiac Glycoside.  
d) Write the bio-synthesis of Digitoxin.  $2 + 4 + 6 + 3$
8. a) Explain the general method of Plant tissue culture.  
b) Write short notes on the following :  
(i) Hairy root disease treatment by the help of plant tissue culture.  
(ii) Immobilization of cell and its application.
9. a) What are terpenoids ?  
b) Classify them with examples.  
c) Write the general pathway involved in the bio-synthesis of terpenoids.  $2 + 4 + 9$
10. Write down the chemistry and bio-synthesis of ephedrine and morphine.  $7\frac{1}{2} + 7\frac{1}{2}$
11. Write short notes on any *two* of the following :  $2 \times 7\frac{1}{2}$   
a) Harbal cosmetics used for skin care  
b) Marine toxins  
c) Role of Artemisia in the treatment of malaria.