Name : .....

Roll No. : .....

Invigilator's Signature : .....

CS/B.PHARM/SEM-7/PT-702/2009-10

2009

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 : $10 \times 1 = 10$

   i) Carotenoids gives a deep blue colour with

   a) conc. NaOH b) conc. HNO_3

   c) conc. H_2SO_4 d) none of these.

   ii) Which one of the following crude drugs as hypertensive drug ?

   a) Vinca b) Senna

   c) Rauwolfia d) Ergot.

   iii) Serotaxonomy means

   a) Classification on the basis of protein

   d) Classification on the basis of minerals

   c) Classification on the basis of vitamin

   d) Classification on the basis of hormones.

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iv) *Pilocarpus Jaborandi* a life saving drug is useful in the treatment of

a) Cancer b) Glaucoma

c) Hypertension d) None of these.

v) Which one of the following is the precursor molecule for the biosynthesis of *L*-Hyoscyamine ?

a) Tyrosine b) Tryptophan

c) Phenyl alanine d) Orithine.

vi) The specific chemical test for the identification of quinine is

a) Vitali-Morin test b) Van Urk test

c) Thalloquine test d) Borntrager's test.

vii) Psoralens are photosensitizing agents contain ..... ring.

a) Napthoquinon b) Furanoquinone

c) Furanocoumarin d) Benzopyran.

viii) *Taxus brevifolia* which contains 10-deacetyl baccatin-III is also known as

a) European Yew tree b) Pacific Yew tree

c) Japanese Yew tree d) American Yew tree.

ix) Artemisinin contains ..... specifically reponsible for antimalarial activity.

a) lactone ring b) peroxide linkge

c) pyran ring d) keto group.

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x) Capsium is obtained from *Capsicum annum* belonging to the family

a) Apocynaceae b) Solanaceae

c) Liliaceae d) Aricaceae.

xi) Sesquiterpene contains

a) 5 carbons b) 10 carbons

c) 15 carbons d) 12 carbons.

xii) Which one of the following is an end product of shikimic acid pathway ?

a) Tropic acid b) Phenylalanine

c) Ornithine d) Mevalonic acid.

GROUP – B
(Short Answer Type Questions)

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

2. Write about cultivation, collection and constituent of opium.
3. Name two marine drugs and their uses.
4. Write a brief note on herbal cosmetics.
5. Write down the structures of eugenol, β-carotene and vitamin *A*. Mention the categorized group under which they belong ?3 + 2
6. Write the biogenesis of ergot alkaloids.

GROUP – C
(Long Answer Type Questions)

Answer any *three* of the following. 3 × 15 = 45

7. Write a short notes on any *three* of the following : 3 × 5 = 15

a) Prebiotics

b) Probiotics

c) Dietary fibres

d) Natural antioxidants.

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8. What are the nutrients in tissue culture system ? What are the minimum conditions required to set up a tissue culture laboratory ? 5 + 10

9. a) What are alkaloids ? Differentiate between true alkaloid, proto-alkaloid and pseudo-alkaloids. 1 + 2

   b) Write the source, biosynthetic pathway, chemical test, pharmacological activities and adverse effects of morphine. 7

   c) Discuss about the source and pharmacological activities of different chemical constituents individually obtained from plants containing tropane alkaloids. 5

10. a) Define glycosides. Classify them according to the glycosidic linkage. 1 + 2

    b) Write down the source, biosynthetic pathway and the pharmaceutical activities of diosgenin. 7

    c) Discuss the chemistry and pharmaceutical activity of sennosides. 5

11. What are alkaloids ? Explain the chemistry, biogenesis and pharmacological activity of atropine. 2 + 3 + 5 + 5

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