



Name :

Roll No. :

Invigilator's Signature :

**CS/M.Pharm/SEM-1/MPT-101(2)/2010-11
2010-11**

PHYTOPHARMACEUTICAL ANALYSIS

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 the following : $10 \times 1 = 10$

i) Nitric acid is used for separation of

a) epidermis of leaves b) Ca-oxalate of leaves

c) starch of leaves d) all of these.

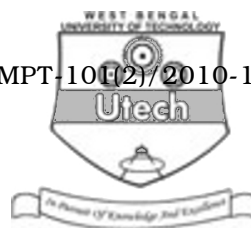
ii) Menstram, Miscella, leaching are related with

a) extraction b) TLC

c) HPLC d) mass spectroscopy.



- iii) Drugs and Cosmetics (Amendment) Act, 1964 related with
- a) control of Allopathic Medicine
 - b) control of Homeopathic Medicine
 - c) control and production of Ayurvedic, Siddha and Unani drugs.
 - d) all of these.
- iv) Spoilage is a substandard condition of crude drug produced by
- a) UV light
 - b) moisture
 - c) microbial infestation
 - d) all of these.
- v) High throughput screening uses
- a) microtitre plates for assay
 - b) petridish for assay
 - c) conventional assay kit
 - d) all of these.
- vi) Clove oil is used in the examination of
- a) oily powders
 - b) solids
 - c) liquids
 - d) none of these.
- vii) Phloroglucinol chemically
- a) 1, 2 dinitro benzene
 - b) 2-hydroxy-3-nitro aniline
 - c) benzene-1, 3, 5-triol dehydrate
 - d) none of these.



- viii) Corallin Alkaline solution contain
- a) 1% rosolic acid solution
 - b) 4% aqueous sodium bicarbonate solution
 - c) 1% rosolic acid solution + 4% aqueous sodium bicarbonate solution
 - d) none of these.
- ix) Preparative TLC having a configuration as follows
- a) 20×20 cm having a layer thickness of 2 mm
 - b) 20×25 cm having a layer thickness of 1 mm
 - c) 25×20 cm having a layer thickness of 2 mm
 - d) 25×25 cm having a layer thickness of 1 mm.
- x) Vein islet and vein termination numbers are used for
- a) identification of leaf characters
 - b) identification of bark characters
 - c) identification of root characters
 - d) none of these.

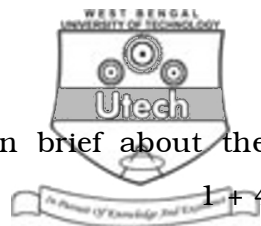
GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. Discuss the role of fluorescence analysis in quality control of crude drugs.
3. What do you mean by pre-extraction operations ? What are the factors affecting extraction of herbal drugs ? $2 + 3$

CS/M.Pharm/SEM-1/MPT-101(2)/2010-11



4. Define the term “micrometry”. Discuss in brief about the lycopodium spore method. 1 + 4
5. Discuss in brief about the evaluation of crude drug by microscopy.
6. Discuss in brief about the selection, collection and identification of plant materials.

GROUP – C

(Long Answer Type Questions)

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

7. Define the term “adulteration”. Classify the types of adulteration of herbal drugs. What are the factors responsible deterioration of herbal drugs ? What are the possible control measures for deterioration ? 2 + 3 + 7 + 3
8. Explain the term “ash values”. Classify various types of ash with suitable examples. Discuss various types of solvent extraction of crude drugs. 3 + 5 + 7
9. Discuss in detail about the method of the preparation of plant samples for antimicrobial screening. Enumerate the general methods for antimicrobial screening. 5 + 10
10. Discuss in detail about the effects of bioprospection, drug development and pharmacogenomics in respect to herbal drugs.
11. What are the parameters influencing separation in TLC ? Write notes about the solvent characteristics in TLC. Discuss in brief about the principle and instrumentation of HPTLC. 5 + 4 + 6