

KATHMANDU UNIVERSITY
End Semester Examination
January, 2025

Marks Scored:

Level : B.Pharm.

Year : II

Exam Roll No. :

Registration No.:

Time: 30 mins.

Course : PHAR 204

Semester : I

F. M. : 20

Date : 31 JAN 2025

SECTION "A"

[15 Q. × 1 = 15 marks]

Choose and encircle in the most appropriate option from each set of choices

- Find the correct statement about the term "Pharmacognosy"
 - Pelletier used the term in his publication "*meterica medica*" during 1815
 - Seydler derived it on his book "*methodica stirpium britannicarum*" in 1814
 - Sertuener derived it from Greek words *Pharmakon-*, and *Gnosis-* in 1915
 - Seydler used the tem in his work titled "*analecta pharmacognostica*" in 1815
- 'Ayurvedic Pharmacopoeia of India' has arranged the natural drugs as per
 - Morphological classification
 - Chemical classification
 - Taxonomical classification
 - Alphabetical classification
- Choose the a correct characteristic features of resin
 - All resins are the pathological product obtained from plants
 - Resins are mostly soluble in alcohol and get soften on heating
 - Resins are mostly used as laxative and cardiac stimulant
 - Resins are the primary metabolites, and rich in phenolic compounds
- Find the names of plant species in a group those nomenclature are indicating the gastrointestinal related medicinal property
 - Papaver somniferum* and *Veratrum viride*
 - Strychnos nux-vomica* and *Digitalis purpurea*
 - Ipomoea purga* and *Holarrhena antidysenterica*
 - Cannabis indica* and *Citrus aurantium*
- What is the special advantage of steam distillation of essential oils?
 - Reduces decomposition of temperature-sensitive volatile compounds
 - Reduces decomposition of inorganic compounds
 - Increases the decomposition of temperature-sensitive compounds
 - Increases the yield of fatty acids
- Select the first bio-active compound that was purified from plant source
 - Brucine
 - Strychnine
 - Nicotine
 - Morphine
- In the microscopic study of leaf constants the "*palisade ratio*" is
 - Total number of palisade cells beneath each epidermal cell
 - Total number of palisade cells beneath mesophyll
 - Average number of palisade cells beneath one epidermal cell
 - Average number of palisade cells beneath islets of epidermal cells

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Time : 2 hrs. 30mins.

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F. M. : 55

SECTION "C"

[5 Q. × 3 = 15 marks]

Attempt ANY FIVE questions. Explain with graphs and figures where ever required.

1. What do you mean by 'Reverse Pharmacognosy'?
2. What are the differences between Ayurveda and other traditional system of medicines?
3. Elaborate the applications of plant tissue culture in Pharmacongosity.
4. Explain the chemistry of Cannabis sativa L. Also write down the name of drugs discovered from the Cannabis.
5. Write down the various approaches to control the pests in medicinal plants.
6. Write down some methods of extraction of essential oils? Explain about the steam distillation method.
7. Write short note on Cod liver oil.

SECTION "D"

[5 Q. × 5 = 25 marks]

Attempt ANY FIVE questions.

8. Explain the developments of Pharmacognosy that had occurred in recent Three centuries.
9. Describe the various basis of classification of crude drugs.
10. Explain the post-harvest handling process of medicinal plants. Also highlight the key factors to be considered during post-harvest handling.
11. Compare and contrast the biological sources and the chemical constituents of Sesame oil and Olive oil.
12. Explain some methods used to evaluate the quality of fixed oils.
13. Explain the pharmacogonstical property of Clove.
14. What is resin? Explain the general process of collection of plant resins, and also give their medicinal properties.

P.T.O.

SECTION "E"
[2 Q. × 7.5 = 15 marks]

Attempt ANY TWO questions.

15. What do you mean by phytopharmaceuticals? Explain the various phytopharmaceuticals with their sources and medicinal properties.
16. Why the microscopy is important in Pharmacognosy? Highlight the key microscopic features of some medicinal plants.
17. Describe the chemistry and medicinal properties of some essential oils from leaf sources.