

UNIT-I**10 Hours****Introduction to Pharmacognosy:**

- (a) Definition, history, scope and development of Pharmacognosy
- (b) Sources of Drugs – Plants, Animals, Marine & Tissue culture
- (c) Organized drugs, unorganized drugs (dried latex, dried juices, dried extracts, gums and mucilages, oleoresins and oleo- gum -resins).

Classification of drugs: [DEPTH OF BIOLOGY]

Alphabetical, morphological, taxonomical, chemical, pharmacological, chemo and sero taxonomical classification of drugs

Quality control of Drugs of Natural Origin:

Adulteration of drugs of natural origin. Evaluation by organoleptic, microscopic, physical, chemical and biological methods and properties.

Quantitative microscopy of crude drugs including lycopodium spore method, leaf constants, camera lucida and diagrams of microscopic objects to scale with camera lucida.

PHARMACOGNOSY & PHYOCHEMISTRY

4TH SEM

[DEPTH OF BIOLOGY]

UNIT 1

10 MARKS

Q1. Classification of crude drug

Q2. Explain adulteration and methods of evaluation

Q3. Write a short note on quantitative microscopy of crude drug including lycopodium spore method

[DEPTH OF BIOLOGY]

5 MARKS

Q1. Write a short note on source of crude drug

Q2. Write a short note on scope & development of Pharmacognosy

Q3. Differentiate between organized & unorganized drug

UNIT-II

10 Hours

Cultivation, Collection, Processing and storage of drugs of natural origin:

Cultivation and Collection of drugs of natural origin

Factors influencing cultivation of medicinal plants.

Plant hormones and their applications.

Polyploidy, mutation and hybridization with reference to medicinal plants

Conservation of medicinal plants

[DEPTH OF BIOLOGY]

2 MARKS**Q1. What is crude drug?****Q2. Explain pharmacognosy****Q3. What is organized drug?****Q4. What is unorganized drug?**

[DEPTH OF BIOLOGY]

UNIT 2**10 MARKS****Q1.Explain cultivation method****Q2. What are factors that influence cultivation of medicinal plant?****5 MARKS****Q1. Write a short note on plant hormone & their application****Q2. Explain polyploidy, mutation & hybridization**

[DEPTH OF BIOLOGY]

[DEPTH OF BIOLOGY]

UNIT-III

07 Hours

Plant tissue culture:

Historical development of plant tissue culture, types of cultures, Nutritional requirements, growth and their maintenance.

Applications of plant tissue culture in pharmacognosy.

Edible vaccines

2 MARKS

Q1. Explain polyploidy .

Q2. Explain mutation.

Q3. Explain hybridization.

UNIT 3

[DEPTH OF BIOLOGY]

10 MARKS

Q1. Give detailed note on plant tissue culture

Q2. Describe application of plant tissue culture

5 MARKS

Q1. Explain the types of culture

[DEPTH OF BIOLOGY]

Q2. write a short note on edible vaccine

Q3. What are the nutrition requirement for groth & maintenance ?

UNIT IV

10 Hours

Pharmacognosy in various systems of medicine:

Role of Pharmacognosy in allopathy and traditional systems of medicine namely, Ayurveda, Unani, Siddha, Homeopathy and Chinese systems of medicine.

Introduction to secondary metabolites:

Definition, classification, properties and test for identification of Alkaloids, Glycosides, Flavonoids, Tannins, Volatile oil and Resins

2 MARKS

Q1. Define plant tissue culture

Q2. Edible vaccine

UNIT 4

[DEPTH OF BIOLOGY]

10 MARKS

Q1. Role of ayurved in pharmacognosy

5 MARKS

Q1. Define alkaloid

Q2. Define volatile oil/ glycosides

[DEPTH OF BIOLOGY]

2 MARKS

Q1. Tanin, resin & flavanoid (with test)

[DEPTH OF BIOLOGY]

UNIT V**08 Hours**

Study of biological source, chemical nature and uses of drugs of natural origin containing following drugs

Plant Products:

Fibers - Cotton, Jute, Hemp

Hallucinogens, Teratogens, Natural allergens

Primary metabolites:

General introduction, detailed study with respect to chemistry, sources, preparation, evaluation, preservation, storage, therapeutic used and commercial utility as Pharmaceutical Aids and/or Medicines for the following Primary metabolites:

Carbohydrates: Acacia, Agar, Tragacanth, Honey

Proteins and Enzymes : Gelatin, casein, proteolytic enzymes (Papain, bromelain, serratiopeptidase, urokinase, streptokinase, pepsin).

Lipids(Waxes, fats, fixed oils) : Castor oil, Chaulmoogra oil, Wool Fat, Bees Wax

Marine Drugs:

Novel medicinal agents from marine sources

[DEPTH OF BIOLOGY]

**UNIT 5
5 MARKS**

Q1. What are fibres

Q2. Describe cotton & jute

Q3. Write a short note on acacia

Q4. Write a short note on gelatin

Q5. Explain castor oil. [DEPTH OF BIOLOGY]

Q6. Describe wool fast

Q7. Marine source of drug

2 MARKS

Q1. What are teratogen?

Q2. What are natural allergen?

Q3. Role & use of agar

Q4. What is papain? [DEPTH OF BIOLOGY]

Q5. What is tragacanth?