

HERBAL DRUG

DEPTH OF BIOLOGY

TECHNOLOGY 6TH SEM

IMPORTANT

QUESTIONS

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UNIT-I

11 Hours

Herbs as raw materials

Definition of herb, herbal medicine, herbal medicinal product, herbal drug preparation

Source of Herbs

Selection, identification and authentication of herbal materials

Processing of herbal raw material

Biodynamic Agriculture

Good agricultural practices in cultivation of medicinal plants including Organic farming.

Pest and Pest management in medicinal plants: Biopesticides/Bioinsecticides.

Indian Systems of Medicine

a) Basic principles involved in Ayurveda, Siddha, Unani and Homeopathy

b) Preparation and standardization of Ayurvedic formulations viz Aristas and Asawas, Ghutika, Churna, Lehya and Bhasma.

DEPTH OF BIOLOGY 10 MARKS QUESTION

1. Explain bio-dynamic agriculture and write a short note on GAP [also in 5 marks]
2. Elaborate the basic principle involved in ayurveda

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05 MARKS QUESTION

1. Discuss advantage and disadvantage of herbal pesticide
2. Explain different methods involved in preparation of herbal extracts
3. Define bhasma. Write it's method of preparation
4. Write a short note on bio pesticide/ insecticide
5. Write down the different source of herbal medicine along with suitable example
6. Explain the methods of preparation and standardisation of aristas

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02 MARKS QUESTION

1. Define herb and herbal medicine **DEPTH OF BIOLOGY**
2. Write basic principle of ayurvedic system of medicine
3. Define churna with example
4. Define pest and pesticide
5. Define herb **DEPTH OF BIOLOGY**
6. Explain bio-pesticide with suitable example
7. Define lehya **DEPTH OF BIOLOGY**

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UNIT-II

7 Hours

Nutraceuticals

General aspects, Market, growth, scope and types of products available in the market. Health benefits and role of Nutraceuticals in ailments like Diabetes, CVS diseases, Cancer, Irritable bowel syndrome and various Gastro intestinal diseases.

Study of following herbs as health food: Alfaalfa, Chicory, Ginger, Fenugreek, Garlic, Honey, Amla, Ginseng, Ashwagandha, Spirulina

Herbal-Drug and Herb-Food Interactions: General introduction to interaction and classification. Study of following drugs and their possible side effects and interactions: Hypercium, kava-kava, Ginkobiloba, Ginseng, Garlic, Pepper & Ephedra.

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10 MARKS QUESTION

1. Define nutraceuticals and its classification. Explain health benefits and role of nutraceuticals in diabetes and cancer **DEPTH OF BIOLOGY**

05 MARKS QUESTION

1. Discuss side effects and interactions of kava-kava and ginkobiloba
2. Write a short note on ashwagandha and ginger as health food
3. Define herb food interaction. Discuss the side effects and interactions of ginseng

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02 MARKS QUESTION

1. Define nutraceuticals **DEPTH OF BIOLOGY**
2. What is drug-food interactions?
3. Give biological source and adverse effect of ephedra
4. Give importance of amla as health food **DEPTH OF BIOLOGY**
5. Give biological source and importance of ginger and garlic

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UNIT-III
Herbal Cosmetics

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10 Hours

Sources and description of raw materials of herbal origin used via, fixed oils, waxes, gums colours, perfumes, protective agents, bleaching agents, antioxidants in products such as skin care, hair care and oral hygiene products.

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Herbal excipients:

Herbal Excipients – Significance of substances of natural origin as excipients – colorants, sweeteners, binders, diluents, viscosity builders, disintegrants, flavors & perfumes.

Herbal formulations :

Conventional herbal formulations like syrups, mixtures and tablets and Novel dosage forms like phytosomes

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10 MARKS QUESTION

1. Explain herbal excipients . Write its significance . Mention the role of diluent and viscosity builders **DEPTH OF BIOLOGY**
2. Define herbal formulation of novel dosage form like phytosomes

05 MARKS QUESTION

1. Give a detailed note on anti-oxidant and protective agents
2. Give the importance of sweetener as excipient along with example
3. Write a short note on herb used for skin care **DEPTH OF BIOLOGY**

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02 MARKS QUESTION

1. Define herbal cosmetics
2. Name any 2 herbal cosmetics
3. What is the role of flavors and perfumes as a excipient?
4. Define herbal formulation

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UNIT- IV

10 Hours

Evaluation of Drugs WHO & ICH guidelines for the assessment of herbal drugs
Stability testing of herbal drugs.

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Patenting and Regulatory requirements of natural products:

a) Definition of the terms: Patent, IPR, Farmers right, Breeder's right, Bioprospecting and Biopiracy

b) Patenting aspects of Traditional Knowledge and Natural Products. Case study of Curcuma & Neem.

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Regulatory Issues - Regulations in India (ASU DTAB, ASU DCC), Regulation of manufacture of ASU drugs - Schedule Z of Drugs & Cosmetics Act for ASU drugs.

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10 MARKS QUESTION

1. Write down the WHO guidelines for the assessment of herbal drugs. Write down the present scope and future prospects of herbal drug industry [also in 5 marks] **DEPTH OF BIOLOGY**
2. Discuss in detail about the stability testing of herbal drug

05 MARKS QUESTION

1. Explain bio-prospecting and biopiracy
2. Give an account on patent medicine **DEPTH OF BIOLOGY**
3. Write a short note on regulatory issues
4. Write down the schedule Z of drugs and cosmetics act for ASU drugs
5. Give ICH guideline for stability testing of herbal drug
6. Give a short note on case study of curcuma **DEPTH OF BIOLOGY**

02 MARKS QUESTION

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1. Explain term patent
2. Define IPR and enumerate its compounds DEPTH OF BIOLOGY
3. Define biopiracy
4. Define bio-prospecting DEPTH OF BIOLOGY

UNIT-V

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07 Hours

General Introduction to Herbal Industry

Herbal drugs industry: Present scope and future prospects.

A brief account of plant based industries and institutions involved in work on medicinal and aromatic plants in India.

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Schedule T – Good Manufacturing Practice of Indian systems of medicine

Components of GMP (Schedule – T) and its objectives

Infrastructural requirements, working space, storage area, machinery and equipments, standard operating procedures, health and hygiene, documentation and records.

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10 MARKS QUESTION

1. Write down component & objective of GMP & describe the regulatory requirements of herbal industries with respect to infrastructure and quality control **DEPTH OF BIOLOGY**
2. Write a detailed note on objectives and components of GMP [schedule T]

05 MARKS QUESTION

1. Give detailed note on present scopes and future prospects of herbal drug industry **DEPTH OF BIOLOGY**
2. Give a brief account of plant based industries and institutions involved in work on medicinal and aromatic plants used in india? **DEPTH OF BIOLOGY**

02 MARKS QUESTION

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1. What is schedule T?

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