

Time : 3 Hours

Total Marks : 75

- N.B:**
1. All questions are compulsory
  2. Figures to right indicate full marks
  3. Draw structure where ever necessary

Q1. Answer the Following

20

1. What is the primary goal of authenticating herbal drugs?

- a) To enhance their therapeutic effects
- b) To ensure they are free from synthetic additives
- c) To confirm their identity and purity
- d) To increase their organoleptic properties

2. When selecting a plant for the development of a herbal drug, what is an important factor to consider regarding its source?

- a) The plant's popularity in contemporary fashion
- b) Ethnobotany & traditional uses
- c) The geographical region and environmental conditions where the plant grows
- d) The processing of the plant

3. What is a fundamental principle of biodynamic agriculture?

- a) Using genetically modified organisms to improve crop yields
- b) using form of alternative agriculture based on pseudo-scientific and esoteric concepts
- c) Relying solely on synthetic fertilizers for plant nutrition
- d) Focusing exclusively on animal husbandry & crop yield

4. Which of the following pest control methods is preferred in the cultivation of plants for herbal drugs to maintain their natural properties?

- a) Use of isolated natural compounds
- b) Introduction of natural predators of pests into the ecosystem
- c) Spraying using Volatile plant constituents
- d) Introducing Bt crops

5. Biopesticides are favored in sustainable agriculture due to their:

- a) High toxicity to a wide range of non-target species
- b) Ability to persist in the environment for long periods
- c) Specific action against target pests, minimizing impact on non-target organisms
- d) Dependence on chemical synthesis for production

6. Which of the following is not true for Bhasma

- a) It is obtained completely by drug incineration
- b) it is amorphous smooth powder
- c) it can be standardised
- d) Bhasmas are Homeopathic preparations.

6. Omega -3-fatty acids, known to lower LDL are recommended as nutraceuticals for
- Cardio vascular diseases
  - Irritable bowel syndrome
  - Diabetes
  - Hepatoprotective
7. Kava should not be used with .....
- Antipsychotics
  - Anti inflammatory
  - Antiobesity
  - Antimalerials
8. Which of these is not commonly used as Nutraceutical?
- Aloe
  - Vinca
  - Liquorice
  - Alfalfa
9. Stievia is an example of
- Natural Colour
  - Natural Sweetner
  - Natural binder
  - viscosity building agent
- 10 \_\_\_\_\_ is used as bleaching agents
- Rose oil
  - Beeswax
  - Citrus peel
  - Morphine oil
11. ----- is used commonly as a viscosity builder
- Corn Starch
  - Gelatin
  - Methyl Cellulose
  - Lactose
12. A natural surfactant which is also used as a skin softener is
- Coco Betaine
  - Lawsone
  - Kava Kava
  - Amla
13. Which of the following is a Novel drug dosage form
- Herbal sprinkles
  - Herbal Syrups
  - Phytosomes
  - Herbal Lozenges
14. The microbial toxin evaluation as per WHO guidelines includes
- Mycotoxins
  - Endotoxins
  - Mycotoxins & Endotoxins
  - Microbial bioburden
15. According to the WHO guidelines, what is essential for the quality control of herbal medicines?
- The use of additives in formulation
  - Documentation of traditional use without scientific evidence
  - Detailed phytochemical analysis
  - Standardization and quality assurance of raw materials, intermediates, and finished products
16. Biopiracy means
- Unethical exploitation of Natural resourses
  - Ethical exploitation of Natural resourses
  - Experimentation
  - Innovation & discovery

17. PBR means

- a) Plant Breeder's Right
- b) Plant Breeding Rights
- c) Plant Breeding Race
- d) Plants based Rights

18. Schedule z refers to

- a) Only Herbal based products
- b) Drugs & Cosmetics Act
- c) Preformulation studies
- d) Homeopathy & Unani Medicines

19. Which regulatory body as per Drug & cosmetic act for ASU drugs under section 33 C

- a) DTAB ASU
- b) DCC ASU
- c) DCC
- d) CDTL

20. Which should be not patented form following

- a) Traditional knowledge of plant
- b) Isolation of phytoconstituents
- c) New uses of Phytoconstituents
- d) New variety of plants

Q.II Answer **any Two** of the following:

**20**

1. Discuss & describe different sources & raw materials of herbal origin with respect to colours & perfumes.
2. Justify & elaborate WHO & ICH guidelines for assessment of herbal drug stability testing.
3. Explain Pest Management & use of biopesticides in Medicinal Plants.

Q.III Answer **any seven** of the Following

**35**

1. Explain the significance of Herbal drug identification & authentication. Mention different sources of drugs.
2. Explain formulation of Asava & Churna with suitable example.
3. Outline the health benefits & role of Nutraceuticals in Diabetes.
4. Briefly explain use of Ashwagandha & Alfaalfa as Nutraceuticals.
5. Give sources & use of fixed oils & antioxidants as raw materials in herbal cosmetics.
6. Provide an overview of any two conventional Herbal formulations.
7. Outline the different infrastructure requirements for Herbal drug manufacturing.
8. Discuss the Patent case study of Neem & write a note on geographical indications related to patents.
9. With suitable examples, explain possible herbal-drug interactions of Ginseng and Hypericum.