

MEDICINAL PLANTS

Long Questions

1. Elaborate the various processing and storage practices employed for plant based medicines.
2. Explain the utilisation of *Embelica officinalis* and *Allium sativum* as herbal powder.
3. Explain the various medicinal properties of *Azadirachta indica* and *Aloe Vera* employed for their utilisation as herbal decoction. Which ailments are they suitable for?
4. Discuss how plant parts can be used as surgical fibres and wound dressing, taking two plants as example.
5. Explain why *Gwarpatha* and *Azadirachta indica* are used for making lotions?
6. How are coconut oil and neem oil medicinally important? Discuss their properties?
7. Explain the importance of *Arjun* plant.
8. What precautions should be taken while using herbal medicinal products?
9. Write a detailed note on human health and importance of balance diet.
10. How are the following plants important as drugs-
 - a) Black Pepper
 - b) Giloy
11. Define the medicinal plants? Describe historical background of Indian medicinal plants, their present and future needs in India?
12. Write an essay on different old and new Ayurvedic/herbal pharma industries of India especially in Madhya Pradesh, their medicinal product?
13. Write an essay on cultivation practice of five important medicinal plants of Madhya Pradesh along their harvesting, storage, Marketing and demand?
14. How plant parts used as powder? Write the notes on medicinal importance of following plants :
 - a) Amla
 - b) Fenugreek
 - c) Cinnamon
 - d) Black Pepper
15. Write an essay on Indian traditional knowledge of Ayurvedic medicines in tribal areas Of Madhya Pradesh and its need of documents?

16. Explain the need for quality control of raw materials and extract .Describe WHO guidelines for quality control of herbal drugs?
17. Explain the importance of phyto pharmacological screening in herbal drug development?
18. Explain how the quality safety and efficacy of herbal medicine can be evaluated?
19. What are you understand by biodiversity .Which factor is affecting it?
20. What are the advantages of patenting natural product ?explain with example.
21. Write different method for processing herbal raw material and explain storage of herbal drug with example?
22. What are the challenge faced by the Ayush system with respect to its integration in the main stream medical system?
23. What are the methods used for cultivating of crude drugs?
24. Which model in mice is better to observe and study anti cancer activity of a herbal formulation?
25. How is a clinical herbalist different from naturopathic doctor's who uses herb's?

Short Questions

1. Write short note on Quality control?
2. Discuss precautions during use of herbal medicinal products.
3. What are the optimum storage practices for medicinal plant products?
4. How is clove oil used as medicinal oil?
5. What properties of curcuma longa make it suitable for use as poultice?
6. Give the method for preparation of amla powder used for the medicinal purposes.
7. Identify the properties of Oscimum santum to be used as medicinal juice.
8. What parts of Trigonella foenum-graecum are used for medicinal purposes?
9. What is Decoction? How is it made?
10. What do you mean by Quality Assurance?
11. Write a brief note on various aromatic plants and their medicinal uses?
12. Give a brief introduction of processing related to medicinal plants?
13. What various precautions we should take during the use of herbal medicines products?

14. Write brief note on importance of quality control and quality assurance for herbal plants?
15. Give brief introduction of some important medicinal plants whose plant part is used herbal medicine?
16. what is the principles of treatment in homeopathic medicine?
17. explain non pharmacopeias' parameters of quality control of herbal drugs.
18. how many branches and specialisation in Ayurveda?
19. what is modern methods of manufacture of traditional Ayurvedic formulations?
20. what do you mean by aromatherapy?
21. what are the factor affecting cultivation of herbal drugs?
22. what is the basic concept of Ayush system?
23. what is the traditional medicine used in India?
24. what is your opinion on herbal parenteral formulation?
25. what is the definition of cultivation of medicinal plant?

HERBAL TECHNOLOGY

Short answer type questions

- Q.1 Define herbal technology? Write the scope and uses of herbal medicines in Indian traditional system ?
- Q.2 Give a brief account of the major herbs used as herbal medicines?
- Q.3 How will you identify Indian Gooseberry also write its pharmacognosy?
- Q.4 What do you mean by secondary metabolites write the phytochemicals screening test of alkaloids and flavonoids?
- Q.5 Write about the techniques used for the extraction of various herbal plants ?

Long answer type questions

- Q.1 Give a brief introduction of the cultivation harvesting processing and storage of herbs and herbal products?
- Q.2 Describe various herbs and herbal products recognised in India illustrating their nutraceutical importance, Cosmetically And biopesticide importance ?
- Q.3 Write the chemistry and pharmacognosy of the following herbal foods:
- a) Tulsi

- b) Curcumin
- c) Kalmegh
- d) Giloy

Q.4 Define plant gene banks? How the cultivation and value-added processing of herbal plants Done?

Q.5 Write the identification of at least four herbal plants illustrating their importance as health food?

HERBAL DRUG TECHNOLOGY

Short answer type Questions:-

- 1) What are herb & Herbal medicine? Write in brief about herbal cosmetics.
- 2) Write a note on the history of Ayurvedic system.
- 3) Write a note on scope of Pharmacognosy.
- 4) Explain tissue culture as a source of drug.
- 5) What are the test and uses of alkaloids?
- 6) Give the complete classification of flavonoids.
- 7) Write a note on need for conservation of medicinal plants.
- 8) How soil influences the drug cultivation.
- 9) Explain the methodology used in extraction of phytochemical in tulsi.
- 10) Write a note on solvent extraction.

Long answer type Questions:-

- 1) Write a note on stability study of Herbal drugs.
- 2) Give a brief review on Homeopathic medicine system.
- 3) Briefly describe the classification of crude drugs.
- 4) Give a descriptive note on Pharmacognosy, its history, scope and development.
- 5) Give a descriptive note on classification and properties of alkaloids.
- 6) What are the identification tests of glycosides? Also mention the properties of glycosides.
- 7) What do you understand by cryopreservation
- 8) Describe the factors influencing drug cultivation.
- 9) Give a detailed account on the various biological effects of nutraceuticals.
- 10) Describe the techniques for identification, quantification, separation of chemical constituents of medicinal plant.

HERBAL TECHNOLOGY

1. The word herb is derived from
 - A. Herbarium
 - B. Herba
 - C. Herbaum
 - D. Harba
2. Identification test of herbs includes
 - A. Macroscopic character
 - B. Chemical reaction
 - C. Microscopic character
 - D. All the above
3. Processing of herbal raw materials include
 - A. Primary processing
 - B. Specific processing
 - C. Drawing
 - D. All the above
4. Herbal drug preparations are prepared by
 - A. Decoction
 - B. Infusion
 - C. Maceration
 - D. All the above
5. The study of use of medicinal plants are known as
 - A. Herbarium
 - B. Pharmacognosy
 - C. Herbalism
 - D. None of the above
6. Herbs are defined as plants with
 - A. Aromatic property
 - B. Flavouring properties
 - C. Medicinal properties
 - D. All the above
7. The first literature having the concept of Ayurveda is
 - A. Atharvaveda
 - B. Charka Samhita

- C. Sushruta Samhita
 - D. All the above
8. Ayurvedic literature which aimed on surgery is
- A. Atharvaveda
 - B. Charka Samhita
 - C. Sushruta Samhita
 - D. All the above
9. According to Ayurveda there are how many stages of disease?
- A. Two
 - B. Four
 - C. Five
 - D. Six
10. Homeopathy system of medicines is based on the principle of
- A. Law of similar
 - B. Minimum dose
 - C. Totality of symptoms
 - D. All the above
11. Classical Ayurvedic formulation includes
- A. Ark
 - B. Bhasma
 - C. Churna
 - D. All the above
12. Herbal granules which are used in Ayurveda is
- A. Churna
 - B. Pak
 - C. Bhasma
 - D. Ghrita
13. Vati is another name of
- A. Resins
 - B. Oils
 - C. Powders
 - D. Tablets
14. Ark contains
- A. Herbal juices

- B. Powder drugs
 - C. Medicated butter
 - D. Distillates of herbs
15. Which of the following is natural occurring antioxidant
- A. Vitamin C
 - B. Vitamin E
 - C. Alpha lipoic acid
 - D. All the above
16. Phytosterols are useful in
- A. Lower LDL levels
 - B. Improve serum lipid profile
 - C. Inhibit absorption of cholesterol
 - D. All the above
17. Omega-3 fatty acid is useful in
- A. Lower the inflammation
 - B. Cause vasodilation
 - C. Lower platelet aggregation
 - D. All the above
18. Which of the following Nutraceutical is used in the treatment of cancer
- A. Green tea
 - B. Garlic
 - C. Ginseng
 - D. All the above
19. Alfalfa is useful in
- A. Prevent cancer
 - B. Help in digestion
 - C. Reduce weight
 - D. None of the above
20. Ginger is useful in
- A. Prevent cancer
 - B. Help in digestion
 - C. Reduce Cholesterol
 - D. All the above
21. Common name of fenugreek is

- A. Methi
 - B. Garlic
 - C. Saffron
 - D. None of the above
22. Health benefits of Spirulina are
- A. Reduce cholesterol
 - B. Prevent cancer
 - C. Treat allergy
 - D. All the above
23. Ashwagandha is useful in treatment of
- A. Blood sugar
 - B. Cancer
 - C. Stress management
 - D. All the above
24. Hypericum interacts with warfarin and produces
- A. Decrease in anticoagulant effect
 - B. Increase in anticoagulants effect
 - C. Both a and b
 - D. None of the above
25. Garlic shows side effect like
- A. Diarrhoea
 - B. Heart burn
 - C. Bleeding
 - D. All the above
26. Pepper should be avoided in
- A. Diabetes
 - B. Pregnancy
 - C. Surgery
 - D. All the above
27. Excipients are
- A. Active ingredients
 - B. Non active
 - C. Mixtures
 - D. Highly contaminated

28. Stevia is an example of
- A. Colorant
 - B. Binder
 - C. Sweetener
 - D. Thickening agent
29. Flavours and perfumes are
- A. Oils
 - B. Volatile oils
 - C. Essential oils
 - D. Lipids
30. Traditional herbal formulation include
- A. Syrups
 - B. Tablets
 - C. Mixtures
 - D. All the above
31. Syrups are prepared by
- A. Solution with heating
 - B. Agitation without heating
 - C. Both a and b
 - D. None of the above
32. Lycopene is present in
- A. Tomatoes
 - B. Papayas
 - C. Watermelon
 - D. All the above
33. Garlic use as Nutraceutical food in
- A. Cardiovascular disease
 - B. Cancer
 - C. Irritable bowel syndrome
 - D. All the above
34. The synonym of alfalfa
- A. Purple medic
 - B. Horse weed
 - C. Greek hay

- D. Winter cherry
35. Garlic has been effective against
- A. Gram positive
 - B. Gram negative
 - C. Acid-fast bacteria
 - D. All the above
36. Indian ginseng is.....
- A. Ginseng
 - B. Ashwagandha
 - C. Sarpagandha
 - D. Chicory
37. Synonym of Ashwagandha
- A. Indian ginseng
 - B. Poison gooseberry
 - C. Winter cherry
 - D. All the above
38. Who is the father of Homeopathy system of medicine?
- A. Samuel Hahnemann
 - B. Hippocrates
 - C. Theodotus
 - D. Charaka
39. Ayurveda is
- A. Chinese system of medicine
 - B. Siddha system of medicine
 - C. Unani system of medicine
 - D. Indian system of medicine
40. What is the acronym of AYUSH
- A. Allopathy, Yoga, Naturopathy, Unani, Siddha, and Homeopathy
 - B. Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
 - C. Ayurveda, Yogic and Naturopathy, Unani, Siddha and Homeopathy
 - D. None of the above
41. The primary metabolites are-
- A. Chlorophyll
 - B. Amino acids

- C. Nucleotides
 - D. All the above
42. Which method are used for Qualitative analysis?
- A. HPLC
 - B. Gas chromatography
 - C. Column chromatography
 - D. All of above
43. The biochemical compounds found in plants are-
- A. Alkaloids
 - B. Polyphenols
 - C. Terpenes
 - D. All the above
44. Which is not include in Extraction techniques for aromatic plants
- A. Headspace trapping
 - B. Micro distillation
 - C. Hydro distillation techniques
 - D. Phytonic extraction
45. The alkaloid colchicine is obtained from
- A. Dried corm of Colchicum
 - B. Dried flowers of Colchicum
 - C. Dried seeds of Colchicum
 - D. All the above
46. Opium is a plant belonging to family-
- A. Apocynaceae
 - B. Euphorbiaceae
 - C. Papaveraceae
 - D. None of the above
47. Biologically active compounds in Catharanthus roseus are
- A) Vincristine & Vinblastine
 - B) Morphine
 - C) Curcumin
 - D) None of the above
48. Which qualitative method is used for alkaloid testing
- A. Mayer's test

- B. Wagner's test
- C. Dragendorff's test
- D. All of above

49. Which method is best suitable for use in case of the thermolabile drugs

- A. Decoction
- B. Maceration
- C. Digestion
- D. Hot Continuous extraction

50. Killar killani is the specific test to detect

- A. Flavonoids
- B. Deoxy sugars
- C. Saponins
- D. Alkaloids

HERBAL TECHNOLOGY ANSWERS

ANSWERS

1. B
2. D
3. D
4. D
5. C
6. D
7. B
8. C
9. D
10. D
11. D
12. B
13. D
14. D
15. D
16. A
17. D
18. A
19. A
20. D
21. A
22. D
23. D
24. A
25. A
26. D
27. B
28. C
29. C
30. D
31. C

- 32. D
- 33. D
- 34. A
- 35. D
- 36. B
- 37. D
- 38. A
- 39. D
- 40. B
- 41. D
- 42. D
- 43. D
- 44. C
- 45. A
- 46. C
- 47. A
- 48. D
- 49. B
- 50. B

Medicinal MCQ

1. Garlic is used most commonly as-
 - A. Antibacterial
 - B. In treatment of Insomnia
 - C. In weight reduction
 - D. Seasoning
2. From which part of the plant is quinine obtained?
 - A. Leaves
 - B. Bark
 - C. Fruits
 - D. Seeds
3. Which of the following is not obtained from Neem trees?
 - A. Curcumin
 - B. Terpenoids
 - C. Tumerone
 - D. Alantone
4. Which of the following vitamins is present in *Emblica officinalis*?
 - A. A
 - B. B
 - C. C
 - D. D
5. Which of the following plants is used to treat inflammatory problems like arthritis?
 - A. Neem
 - B. Turmeric
 - C. Tulsi
 - D. Amla
6. Which of the following is/are used to strengthen the immune system and cope with physical and emotional stress?
 - A. *Ocimum sanctum*
 - B. *Curcuma longa*
 - C. *Azadirachta indica*
 - D. *Rosa indica*
7. Which of the following is commonly used to purify blood and control blood sugar level?

- A. *Curcuma longa*
 - B. *Emblica officinalis*
 - C. *Cinchona officinalis*
 - D. *Ocimum sanctum*
8. Which of the following plants belongs to the zingiberaceae family?
- A. Neem
 - B. Margosa
 - C. Amla
 - D. Turmeric
9. Which of the following plants is used to develop muscles and to treat scurvy?
- A. Neem
 - B. Quinine
 - C. Tulsi
 - D. Amla
10. Which of the following constituents is not obtained from a Tulsi plant?
- A. Ursolic acid
 - B. Apigenin
 - C. Alantone
 - D. Luteolin
11. Which of the following plants has anti-diabetic, anti-bacterial and anti-viral properties?
- A. *Curcuma longa*
 - B. *Cinchona*
 - C. *Azadirachta indica*
 - D. *Emblica officinalis*
12. Which of the following is used to repel mosquitoes as well as to kill the mosquito larvae?
- A. *Cinchona officinalis*
 - B. *Ocimum sanctum*
 - C. *Hibiscus rosa-sinesis*
 - D. *Rosa indica*
13. Which part of the *Emblica officinalis* is used in various medical preparations?
- A. Leaves
 - B. Stem
 - C. Seed

- D. Fruit
14. Holy basil (Tulsi) is a member of family
- A. Labiatae
 - B. Asclepiadaceae
 - C. Umbelliferae
 - D. None of the above
15. Brahmi is an important tonic for
- A. Brain
 - B. Body
 - C. General health
 - D. None of the above
16. Indian gooseberry is
- A. Blueberries
 - B. Strawberries
 - C. Amla
 - D. None of the above
17. Kalmegh (*Andrographis paniculata*) used as a drug to cure
- A. Bronchitis
 - B. common cold
 - C. Diarrhoea
 - D. All the above
18. Moisturizing gel is obtained from
- A. Aloe vera
 - B. *Saraca asoca*
 - C. *Acacia vistina*
 - D. None of these
19. Drugs which induce dreamy state of consciousness is
- A. Sedative
 - B. Stimulant
 - C. Depressant
 - D. Hallucinogen
20. Which one of the following is a medicinal plant
- A. *Jatropha curcus*
 - B. *Calendula officinalis*

- C. *Tagetes petula*
 - D. *Sesbania aegyptiaca*
21. The morphine obtained from opium is a
- A. Tannin
 - B. Alkaloids
 - C. Gums
 - D. Latex
22. *Withania somnifera* is the botanical name of
- A. Indian madder
 - B. Ashwagandha
 - C. Sarpagandha
 - D. Mulethi
23. Reserpine is an alkaloid obtained from
- A. Ashwagandha
 - B. Sarpagandha
 - C. Opium
 - D. Cannabis
24. Which alkaloids are present in opium
- A. Codeine
 - B. Morphine
 - C. Thebaine
 - D. All of these
25. The medicinally most important part of *Rauwolfia serpentina* is
- A. Root
 - B. Rhizome
 - C. Aerial stem
 - D. All of these
26. The morphine obtained from Opium is a
- A. Latex
 - B. Pome
 - C. Alkaloid
 - D. None of these
27. Which of the following is Indian medicinal plant
- A. *Oryza sativa*

- B. *Solenum melongina*
 - C. *Rauwolfia serpentina*
 - D. *Saccharum officinarum*
28. Roots of this species contain valuable alkaloids useful in medicine
- A. *Rauwolfia serpentina*
 - B. *Embllica officinalis*
 - C. *Azadirachta indica*
 - D. *Helianthus annuus*
29. Reserpine is used in
- A. Malaria
 - B. High blood pressure
 - C. Asthma
 - D. Spices
30. Stramonium' drug is obtained from the plant species of
- A) *Ocimum*
 - B) *Rauwolfia*
 - C) *Datura*
 - D) *Asphodels*
31. Richest source of vitamin 'C' is
- A) *Capsicum frutescence*
 - B) *Embllica officinalis* (Amla)
 - C) Orange
 - D) Lemon
32. *Rauwolfia serpentina* belongs to family
- A) Rubiaceae
 - B) Solanaceae
 - C) Malvaceae
 - D) Apocynaceae
33. "Central drug research institute" is situated at
- A) Lucknow
 - B) Madras
 - C) Bombay
 - D) Delhi
34. *Aloe barbadensis* belongs to family

- A) Liliaceae
 - B) Apocynaceae
 - C) Gramineae
 - D) None of the above
35. Study of drug plants is known as
- A) Pharmacy
 - B) Pharmacology
 - C) Pharmacognosy
 - D) Pharmaceutical chemistry
36. *Rauwolfia serpentina* is termed as a snake root plant because
- A) It possesses venomous poison
 - B) It smell like a snake
 - C) It is used in snake bite
 - D) Its roots appear snake like
37. Leaf juice of which plant is given in chronic fever, haemorrhage, dysentery and dyspepsia and also used to check vomiting
- A) Pan
 - B) Tulsi
 - C) Ark
 - D) Arusa
38. Which of the following is given in disorders of the nervous system
- A) Garlic
 - B) Onion
 - C) Turmeric
 - D) Ginger
39. Which of the following is a blood purifier
- A) Opium
 - B) Emblica
 - C) Aegle
 - D) All the above
40. Ashwagandha belongs to genus
- A) Withania
 - B) Solanum
 - C) Lycopersicum

- D) None of the above
41. Which of the leaves are used as mosquito repellent
- A) Eucalyptus
 - B) Digitalis
 - C) Cassia
 - D) Stramonium
42. Which alkaloid is responsible to give pungency to the black pepper?
- A) Piperine
 - B) Morphine
 - C) Ephedrine
 - D) None of the above
43. Honey is
- A) Nectar of flower
 - B) Nectar stored in the honey sac
 - C) Nectar mixed with saliva and stored in honey sac
 - D) Nectar and water sucked by the honey bee
44. What is the Botanical name of Black pepper?
- A) *Curcuma longa*
 - B) *Acorus calamus*
 - C) *Pimenta dioica*
 - D) *Piper nigrum*
45. Giloy is used in the treatment of-
- A) Fever
 - B) Infections
 - C) Diarrhoea and diabetes
 - D) All the above
46. Curcumin is extracted from
- A) Turmeric
 - B) Kokum
 - C) Ginger
 - D) Curry leaf
47. Which of the following plants contains the compounds gedunin and nimbolid?
- A. *Curcuma longa*
 - B. *Azadiracta indica*

C. *Cinchona officinalis*

D. *Ocimum sanctum*

48. Which of the following is not correct about a neem tree?

A. It is evergreen but under severe drought, it may shed its leaves

B. All parts of the tree namely seeds, leaves, flowers and bark are used for the preparation of medicines

C. It has been widely used as animal feed

D. It grows in temperate regions

49. Which has narcotic property-

A. Charas

B. Bhang

C. Ganja

D. All the above

50. The general techniques of medicinal plant extraction are

A. Infusion

B. Digestion

C. Counter-current extraction

D. All of above

MEDICINAL

ANSWERS

1. A
2. B
3. B
4. C
5. B
6. A
7. A
8. D
9. D
10. C
11. C
12. B
13. D
14. A
15. A
16. C
17. D
18. A
19. D
20. B
21. B
22. B
23. B
24. D
25. A
26. C
27. C
28. A
29. B
30. C
31. B
32. D

- 33. A
- 34. A
- 35. C
- 36. C
- 37. B
- 38. A
- 39. B
- 40. A
- 41. A
- 42. A
- 43. C
- 44. D
- 45. D
- 46. A
- 47. B
- 48. D
- 49. D
- 50. D

IEHE BHOPAL
MEDICINAL PLANT

- 1.. Indian medicine and homeopathy board was established in..
(a). 1995.
(b). 1994.
(c). 1996.
(d). 1997.
2. What is the biological source of cinchona?
(a). Bark of Root
(b). Bark of Stem
(c). Leaves
(d). Both a and b
3. Match the following with respect to the chemical constituents of plants.

I. Vinca	A. Protopine
II. Opium	B. Vindoline
III. Cinchona	C. Conimine
IV. Kurchi	D. Quinine

(a). I-A,II-B,III-C,IV-D
(b). I-B,II-C,III-D,IV-A
(c). I-B,II-A,III-D,IV-C
(d). I-D,II-C,III-A,IV-B
4. Choose incorrect statement with respect to medicinal uses of plants.

I. Kurchi is used to treat diarrhea.
II. Cinchona is used to treat malaria.
III. Vinca is used to treat lymphomas.
IV. Ephedra is used to treat cancer.

(a). Both I and II
(b). Only II
(c). Both III and IV
(d). Only IV
5. Carrots are not only rich in starch, but also
(a) Vitamin A
(b) Vitamin C
(c) Vitamin D
(d) Vitamin E
6. The opium poppy plant is the source of
(a) Morphine
(b) Codeine
(c) Heroin
(d) all of these
7. One of the following is not true about “Ginger”
(a) It is used in motion sickness
(b) Sesquiterpenes are the class of constituents present in it
(c) It improves blood circulation
(d) It inhibits cytochrome P450 enzymes

8. Herb used for treatment of anxiety and seizures is

- (a.) Ephedra
- (b.) St. John'sWart
- (c.) Valerian
- (d.) Kava Kava

9. Biological name of black pepper is

- (a.) *indica*
- (b.) *Pipernigrum*
- (c.) *Centellaasiasa*
- (d.) *Pisumsativam*

10. Which body function is improved by black pepper?

- (a)Respiration
- (b.)Reproduction
- (c.) Digestion
- (d.)Urinary system

11. Main chemical constituent of black pepper?

- (a.) Piperine
- (b.)Omega 3 fatty acids
- (c)Triglycerides
- (d.)L-citronellol

12. Molecular formula of piperine?

- (a.)C₁₀H₁₅O₃
- (b.)C₁₇H₁₉
- (c.)C₁₅H₁₅O₃
- (d.)C₂H₅NO₃

13.Which of the following plants parts used in treating heart curing diseases.

- (a.) Mango
- (b.)Arjuna
- (c.) Tobacco
- (d.)Cinchona

14. Synonyms of Ashwagandha

- (a). Indian ginsen
- (b.) Poison gooseberry
- (c.) Winter cherry
- (d.) All

15. Lycopene is present in

- (a). Tomatoes
- (b). Papayas
- (c). Watermelon
- (e) All

16. Another name of fenugreek is ?

- (a) Methi
- (b) Garlic
- (c) Saffron

(d) None

17. Which of the following is used in the treatment of cancer ?

- (a) Garlic
- (b) Green Tea
- (c) Ginseng
- (d) All

18. Which of the following is natural occurring antioxidant ?

- (a) Vitamin C
- (b) Vitamin E
- (c) Alpha lipoic acid
- (d) All

19. Example of cover crop is ?

- (a). Sugar cane
- (b). Maize
- (c) Clover
- (d) None

20. Phytochemicals are of types?

- (a) One
- (b) Three
- (c) Four
- (d) Two

21. In herbal medicines, garlic is used most commonly as what ?

- (a) Antibacterial
- (b) Seasoning
- (c) Weight Reduce
- (d) Treatment for insomnia

22. Which of the following diseases can be cured by using the extract of 'Vasaka' leaf ?

- (a) Cholera
- (b) Tetanus
- (c) Cold and cough
- (d) Malaria

23. Which part of Clove plant is used for toothache?

- (a) Stem
- (b) Seed
- (c) Bud
- (d) Fruit

24. Which of the following part of the cinchona tree is used to treat malaria?

- (a) Root
- (b) Bark
- (c) Leaves
- (d) Seed

25. Neem oil extracted from?

- (a) Neem Leaf

- (b) Neem flower
- (c) Neem Nimboli
- (d) None

ANSWER KEY

Question	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Answer	A	D	C	C	A	D	D	D	B	C	A	B	B	C	D	A	B	D	C	D	A	C	D	B	A

HERBAL TECHNOLOGY

Question 01: Government of India stabilized department ISM&H (Indian Systems of Medicine and Homoeopathy) to ensure the development and propagation of AYUSH in.....?

- A. 1995
- B. 1989
- C. 1981
- D. 1990

Question 02: The Department of AYUSH was upgraded to a full-fledged Ministry of AYUSH on.....?

- A. 10th November, 2014
- B. 9th November, 2014
- C. 8th November, 2012
- D. 7th November, 2012

Question 03: The first having the concept of Ayurveda is ?

- A. Atharvaveda
- B. Charka Samhita
- C. Sushruta Samhita
- D. ALL

Question 04: According to Ayurveda there are stages of diseases?

- A. Three
- B. Two
- C. Six
- D. Five

Question 05: the study of use of medicinal plants are known as ?

- A. Herbalism .
- B. Herberium.
- C. Hharmacognosy.
- D. None.

Question 06: Which of the following is not a biopesticide?

- A. *Nucleopolyhedrovirus*.
- B. *Xanthomonas campestris*.
- C. *Bacillus thuringiensis*.
- D. *Trichoderma harzianum*.

Question 07: Ginger is useful in ?

- A. Prevent cancer.
- B. Reduce cholesterol.
- C. Help in digestion.
- D. All

Question 08: Tulsi plant has medicinal values due to ?

- A. Phenols and Flavonoids.
- B. Inorganic Acid.
- C. Organic Acid.
- D. None.

Question 09: Indian Gooseberry is synonyms of ?

- A. Blueberries.
- B. Strawberries.
- C. Amla.
- D. None.

Question 10: Which plant is known as “father of all foods”?

- A. Chicory.
- B. Amla.
- C. Alfa-Alfa.
- D. Ashwagandha.

Question 11: Which of the following is major chemical constituents of Turmeric ?

- A. Cineole.
- B. Camphene.
- C. α -Phellandrene.
- D. Curcuminoids.

Question 12: Botanical name of Giloy is ?

- A. *Allium sativum*.
- B. *Tinospora cordifolia*
- C. *Curcuma aromatica*.
- D. None.

Question 13: Garlic use as Nutraceutical food in ?

- A. Cancer.
- B. Cardiovascular disease.
- C. Irritable bowel syndrome.

D. All.

Question 14: Special processing which used to treat selected herbs?

- A. To reduce toxicity.
- B. To modified their therapeutic activities.
- C. Improve the purity percentage.
- D. All .

Question 15: Which Colour layer is represented terpenoid in Liberman-Burchard Test ?

- A. Green Colour.
- B. Blue Colour.
- C. Red Colour.
- D. White Colour

Question 16: Which test is use to detect Keto-Steroid ?

- A. Zimmer Mann Test.
- B. Salwoski Test.
- C. Liberman-Burchard Test.
- D. Sulphur Powder Test.

Question 17: Processing of HERBAINCLUSE ?

- A. Primary Processing.
- B. Specific Processing.
- C. Drawing.
- D. All.

Question 18: Which Colour layer is represented Steroids in Salwoski Test ?

- A. Green Colour.
- B. Red Colour.
- C. White Colour.
- D. Blue Colour.

Question 19: If the drugs have a maximum therapeutic value which process is used for extraction?

- A. Percolation.
- B. Decoction.
- C. Infusion.
- D. Maceration.

Question 20: Solvent used for extraction is ?

- A. Alcohols.
- B. Water.
- C. Ether.
- D. All of the above.

Question 21: What are the applications of steam distillation?

- A. Extract the inorganic compounds.
- B. To clean the equipment.
- C. Extract and isolate essential oils.
- D. To purify drinking water.

ANSWER KEY

Question	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21
Answer	A	B	B	D	B	B	D	A	C	C	D	B	D	D	C	A	D	C	A	D	C

Objective type questions

1. "Kumari" is common name for

- A. Aloe
- B. Rhubard
- C. Senna pod
- D. None of them

Ans: A

2. In herbal medicine, garlic is used most commonly as what?

- A. Antibacterial
- B. Treatment For Insomnia
- C. Weight Reduction Tool
- D. Seasoning

Ans: A

3. The word herb is derived from

- A. Herbarium
- B. Herba
- C. Herbaum
- D. Harba

Ans: B

4. Herbs are defined as plants with

- A. Aromatic property
- B. Flavouring properties
- C. Medicinal properties
- D. All

Ans: D

5. Macroscopic methods includes

- A. Shape and size
- B. Total Ash value
- C. Cellular structure
- D. Water solubility

Ans: A

6. Organic farming means-

- A. Not to use pesticides
- B. Used organic fertilizers
- C. To optimize productivity
- D. All

Ans: D

7) Beneficial insects are-

- A. Lady bugs
- B. Mice
- C. Snake
- D. Ants

Ans: A

8. Pheromones are an example of -

- A. Biochemical pesticides
- B. Microbial pesticides
- C. PIP
- D None

Ans: A

9. Advantages of biopesticides are -

- A. Natural
- B. Less toxic
- C. Effective in small concentration
- D. All

Ans: D

10. Crop rotation helps in -

- A. Reload of the soil
- B. Provide nutrients to the soil
- C. Disrupts the weeds
- D. All

Ans: D

11. There are..... Types of Vedas-

- A. One
- B. Two
- C. Three
- D. Four

Ans: D

12) The first having the concept of Ayurveda is -

- A. Athurveda
- B. Charka Samhita
- C. Sushruta Samhita
- D. All

Ans: B

13) Homeopathy system of medicines is based on the principle of

- A. Law of similar

B. Minimum dose

C. Totality of symptoms

D. All

Ans: D

14) Classical ayurvedic formulation includes -

A. Ark

B. Bhasma

C. Churna

D. All

Ans: D

15) Powder made by calcification is also known as -

A. Churna

B. Bhasma

C. Pak

D. Ghrita

Ans: B

16) Herbal granules use in ayurveda

A. Churna

B. Pak

C. Bhasma

D. Ghrita

Ans: B

Herbal Drug Technology

Multiple Choice based Questions.

1. The Common preservatives used in herbal is /are

- a. Honey
- b. Unrefined Sugar
- c. Glycerine
- d. All

2. In herbal medicine, garlic is used most commonly as what

- a) **Antibacterial**
- b) Treatment for Insomnia
- c) Weight reduction tool
- d) Seasoning

3. Alkaloids are _____ type of substances.

- a) acid
- b) neutral
- c) **basic nitrogenous**
- d) chemical

4. Ashwagandha is common name for-

- a. **Wthania somniferum**
- b. Holarrhena antidysentrica
- c. Bacopa moneira
- d. Centella asiatica

5. The term 'Pharmacognosy' was coined by-

- a. Pelletier
- b. Sertuener
- c. Stars and Otto
- d. **Seydle**

6. Drug is not an example of unorganized crude drug :

- a. **Cinchona**
- b. Aloe
- c. Agar
- d. Colophony

7. The test, which is not used for identification of carbohydrates:

- a. Molisch test
- b. Osazone formation test
- c. **Ninhydrine test**
- d. Resorcinol test

8. Which is not the chemical constituent naturally obtained from Opium

- a. Morphine
- b. Codeine
- c. Narcotine
- d. **Heroine**

9. Which is not the use of argot?

9. Which is not use of argot

- a. Oxytocin
- b. Prevent post partum hemorrhage
- c. Migraine
- d. Laxative**

10. Which one of the following is NOT secondary metabolite

- a) **Proteins**
- b) Alkaloids
- c) Terpenes
- d) Terpenoids

11. Secondary metabolite is source for _____

- a) Drugs
- b) Fragrances
- c) Dyes
- d) **All**

12. _____ range of temperature is required for in-vitro culture

- a) 20⁰ to 25⁰
- b) 30⁰ to 35⁰
- c) 25⁰ to 30⁰
- d) 35⁰ to 40⁰

13. _____ is the source for Production of secondary metabolite

- a) **Primary metabolite**
- b) DNA
- c) RNA
- d) Carbohydrates

14. Secondary metabolites are used by plant cells for _____

- a) Production of nucleic acids
- b) **For making plasma membrane**
- c) Morphological differentiation
- d) All

15. Metabolic intermediates found in living system which are essential for growth and life is called_____

- a) Saponins
- b) Tannins
- c) Secondary metabolite
- d) Primary metabolites**

16. Which of the following is NOT the class of secondary metabolite.

- a) Amino acids**
- b) Terpenes
- c) Phenolics
- d) Alkaloids

17. Name the class of secondary metabolites which is characterized by the presence of the hydroxyl group with an aromatic ring?

- a) Glycosides
- b) Phenolics**
- c) Alkaloids
- d) Terpene

18. Name the phenolic compound present in tea?

- a) Flavonoids**
- b) Lignans
- c) Stilbene
- d) Neolignans

19. Cryopreservation is a technique used for

- a) Crystallization of food
- b) Food packing
- c) Seed saving**
- d) Preservation of excess production of vegetables

20. The pH in soils can be raised by adding:

- a) Sand
- b) lime**
- c) sulphur
- d) nitrogen

21. A common example of stem tuber is

- a) Ginger
- b) Garlic
- c) Onion
- d) Potato**

22. Seed treatment is done to control—

- a) Soil-borne disease
- b) Air-borne disease
- c) Seed-borne disease**
- d) None of these

23. Carbon monoxide kills because it destroys

a) Haemoglobin

b) Phytochrome

c) Cytochrome

d) Both a and b.

24. Tincture of orange is prepared by

a. Infusion

b. Maceration

c. Percolation

d. Decocotion

25. Following are the process used for extraction except.....

a. Maceration

b. Sublimation

c. Digestion

d. Precolation

26. Chemically, tannins are complex mixtures of _____ that are difficult to separate and crystallize.

a) polypeptides

b) polyphenols

c) steroids

d) fatty acids

27. Cercospora dioscorea produces a leaf spot on dioscorea is a

a. Fungi

b. Virus

c. Weed

d. Insect

28. Tissue and cells cultured in a liquid medium without agar produce

a. Callus culture

b. Suspension culture

c. Inorganic Culture

d. Protoplast culture

29. Cotton is soluble in.

- a. HCl
- b. KOH
- c. Cold 80% Sulphuric acid
- d. Acetone**

30. Alkaloids derived from tyrosine

- a. Papaverine**
- b. Ergot
- c. Tropane
- d. Anabesine

31. The word herb is derived from

- a. Herbarium
- b. Herba**
- c. Herbaum
- d. Harba

32. Phytochemicals are of types

- a. One
- b. Two**
- c. Three
- d. Four

33. The study of use of medicinal plants are known as

- a. Herbarium
- b. Pharmacognosy
- c. Herbalism**
- d. None

34. Hrbs are defined as plant with

- a. Aromatic Property
- b. Flavouring properties
- c. Medicinal properties
- d. All the above**

35. Crop rotation helps in

- a. Reload of the soil
- b. Provide nutrients to the soil
- c. Disrupts the weeds
- d. All**

36. The first having the concept of Ayurveda is

- a. Athurveda
- b. Charak Samhita**
- c. Sushruta Samhita
- d. All the above

37. Ayurvedic literature which aimed on surgery is

- a. Athurveda
- b. Charak Samhita
- c. Sushruta Samhita**
- d. All the above

38. Siddha system of medicine originate from

- a. Tamil culture**
- b. Bengali Culture
- c. Punjabi Culture
- d. North east culture

39. Unani system was originated from

- a. Iran
- b. India
- c. Greece**
- d. China

40. Arista is a

- a. Fermented decoction**
- b. Fermented infusion
- c. Decoction
- d. Herbal mineral medicine

41. Shodhna is another name of

- a. Distillation
- b. Maceration
- c. Filtration
- d. Purification**

42. Which of the following is natural occurring antioxidant.

- a. Vitamin C
- b. Vitamin E
- c. Alpha lipoic acid
- d. All the above**

43. Ashwagandha is useful in treatment of

- a. Blood Sugar
- b. Cancer
- c. Stress management
- d. all**

44. Indigoids are

- a. Natural dyes**
- b. Synthetic dyes
- c. Coal tar dye
- d. None

45. Phytosomes are prepared by

- a. antisolvent precipitation method
- b. Rotatory evaluation method
- c. Solvent evaporation method
- d. Any one of the above**

46. API means

- a. Active Pharmaceutical Incorporation
- b. Active Pharmaceutical intake
- c. Active Pharmaceutical ingredient**
- d. Active Pharmaceutical interaction

47. Quarantine includes

a. Storage of finished good

b. Storage of final products

c. Storage of raw materials

d. Destination of raw material

48. Which of following is an organic farming practice that helps to maintain soil health

a. Monoculture

b. Crop rotation

c. Sewage Sludge

d. Synthetic fertilizers

49. Which minerals are useful in Diabetes as nutraceuticals

a. Vanadium

b. Chromium

c. Magnesium

d. All

50. Inulin phytochemical present in

a. Chicorium intybus

b. Medicago sativa

c. Trigonella foenum-graceum

d. None

Answer Key-

1.	d	6.	a	11.	d	16.	a	21.	d	26.	b	31.	b	36.	b	41.	d	46.	c
2.	a	7.	c	12.	c	17.	b	22.	c	27.	a	32.	b	37.	c	42.	d	47.	a
3.	c	8.	d	13.	a	18.	a	23.	a	28.	b	33.	c	38.	a	43.	d	48.	b
4.	a	9.	d	14.	b	19.	c	24.	b	29.	d	34.	d	39.	c	44.	a	49.	d
5.	d	10.	a	15.	d	20.	b	25.	b	30.	a	35.	d	40.	a	45.	d	50.	a