Question Paper

Exam Date & Time: 20-May-2024 (10:00 AM - 01:00 PM)

MANIPAL ACADEMY OF HIGHER EDUCATION

Quality Control and Standardization of Herbals [PCO-BP806ET-S1]

Marks: 75 **Duration: 180 mins.**

I Multiple Choice Questions (MCQs)

Answer all the questions. Section Duration: 30 mins

1) Scientific name of the plant is recorded in the following order (1)

- Genus, species, author, family
- Species, genus, author, family
- Author, genus, species, family
- Family, genus, species, author

2) Fresh plant materials should be ideally stored as per GMP at (1)

- 2 - 8 °C
- 10 - 15 °C
- 20 - 30 °C
- 35 - 40 °C

3) Fertilizers should be applied sparingly to minimize (1)

- Erosion
- Leaching
- Tillage
- Weeds

4) The domesticated, locally adapted, distinct identity of a traditional variety of species is known as (1)

- Ecotype
- Chemotype
- Phenotype
- Landraces

5) National GLP compliance monitoring authority was established by DST India in the year (1)

- 1972
- 1970
- 2002
- 2010

6) One of the following is NOT useful for the Soil conservation (1)

- Crop rotation
- Inter cropping

Contour farming
Tillage

7) Shinoda test is performed to detect (1)

Saponins
Alkaloids
Carbohydrates
Flavonoids

8) Hemolytic activity is positive for which of the following (1)

Tannins
Cellulose
Flavonoids
Saponins

9) Rancidity of fixed oil is determined by (1)

High Ash value
High Acid value
High Extractive value
Low Ash value

10) Presence of Steroids in the extract is identified by (1)

Hager's test
Liebermann-Burchard test
Dragendroff test
Halphen's test

11) "Isoquinoline" containing chemical constituents (1)

Ephedra
Opium
Nux-vomica
Datura

12) Schedule T in ASU system refers to (1)

Good Manufacturing Practice
Good Agricultural Practice
Good Clinical Practice
Good storage practice

13) Limit of Heavy Metal Arsenic for exports as per ASU standard is (1)

0.3 ppm
3.0 ppm
0.5 ppm
1 ppm

14) Acceptance criteria indicates _____ limits in quality control of herbal drugs (1)

Alphabetical
Numerical
Therapeutic
Chemotaxonomy

15) Which of the following is NOT included in Herbal preparations? (1)

- Tinctures
- Extracts
- Isolated compounds
- Expressed juices

16) Tests, procedures, acceptance criteria, and limits are the part of (1)

- Specifications
- Standardization
- Markers
- Drug extract ratio

17) Control of herbal substances and preparations are described in (1)

- CIMAP
- CHMP
- NBRI
- CFTRI

18) Which of the following is NOT a healthcare professions? (1)

- Pharmacy
- Medical
- Nursing
- Engineering

19) Which Schedule deals with the manufacture of the herbal medicines? (1)

- Schedule H
- Schedule T
- Schedule P
- Schedule O

20) Drugs and cosmetics act was framed in which year? (1)

- 1937
- 1938
- 1939
- 1940

II Long Answers

Answer all the questions.

1) Describe the following (10)
a) Determination of Bitterness value. (5 Marks)
b) Foaming Index and Swelling Index. (5 Marks)

2) Explain various stages for obtaining Licensing Procedure for the manufacturing of Herbal medicines in India. (10)

III Short Answers

Answer all the questions.

1) Describe the SOPs for the controlled cultivation of medicinal plants. (5)

2) Describe the GLP (NGCMA) formation, scope and certification in India. (5)

3) Discuss on General considerations for herbal medicine research. (5)

4)	Briefly discuss various steps involved in Research studies.	(5)
5)	Explain HPTLC as a tool for standardization and quality control of herbal drugs.	(5)
6)	List out various challenges in stability testing of herbal drugs.	(5)
7)	Give the components of The Ayurvedic Pharmacopoeia of India and The Unani Pharmacopoeia of India.	(5)

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