

Exam Date & Time: 25-May-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Quality Control and Standardization of Herbals [PCO-BP806ET]

Marks: 75

Duration: 180 mins.

I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

1) Soil conservation is achieved by

1) Crop rotation	2) Inter cropping	3) Contour farming	4) All of the above
------------------	-------------------	--------------------	---------------------

2) Propagation materials in GACP should be free from contamination and tolerant to the following abiotic factor

1) Bacteria	2) Fungus	3) Animals	4) Minerals
-------------	-----------	------------	-------------

3) Domesticated, locally adapted, distinct identity of traditional variety of species are known as

1) Ecotype	2) Chemotype	3) Phenotype	4) Landraces
------------	--------------	--------------	--------------

4) The ultimate goal of GMP is

1) The manufacturing process is as has been prescribed to maintain the standards	2) Safeguarding the health of the patient as well as producing good quality medicine	3) The manufactured drug which is released for sale is acceptable quality	4) All of the above
--	--	---	---------------------

5) Fresh plant materials should be ideally stored at

1) 2 - 8 °C	2) 10 - 15 °C	3) 20 - 30 °C	4) 35 - 40 °C
-------------	---------------	---------------	---------------

6) Scientific name of the plant is recorded in the following order

1) Genus, species, author, family	2) Species, genus, author, family	3) Author, genus, species, family	4) Family, genus, species, author
-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------

7) Swelling index is determined for which of the following drugs

1) Cinchona bark	2) Ispaghula seeds	3) Cinnamon Bark	4) None of the above
------------------	--------------------	------------------	----------------------

- 8) Paracytic stomata is present in which of the following drugs (1)
- | | | | |
|-----------|----------|--------------|---------------|
| 1) Vasaka | 2) Senna | 3) Digitalis | 4) Pilocarpus |
|-----------|----------|--------------|---------------|
- 9) Example of drug containing Isoquinoline alkaloid (1)
- | | | | |
|---------------|-----------|----------|----------|
| 1) Nux-vomica | 2) Datura | 3) Opium | 4) Clove |
|---------------|-----------|----------|----------|
- 10) Liebermann-Burchard test is carried out for (1)
- | | | | |
|-------------|------------|-----------|-------------|
| 1) Alkaloid | 2) Tannins | 3) Resins | 4) Steroids |
|-------------|------------|-----------|-------------|
- 11) To determine Ash value the crude drugs are ignited at (1)
- | | | | |
|------------------|------------------|------------------|------------------|
| 1) 100 to 150 °C | 2) 150 to 200 °C | 3) 200 to 250 °C | 4) 500 to 600 °C |
|------------------|------------------|------------------|------------------|
- 12) Grant or renew the license for ASU drugs is described under Rule (1)
- | | | | |
|----------|----------|---------|----------|
| 1) 158-B | 2) 33EEB | 3) 33EE | 4) 160-A |
|----------|----------|---------|----------|
- 13) Control Samples for stability testing are generally stored at (1)
- | | | | |
|---------------------|------------|------------------------------|-------------------------|
| 1) Room temperature | 2) Freezer | 3) Refrigeration temperature | 4) Elevated temperature |
|---------------------|------------|------------------------------|-------------------------|
- 14) Acceptance criteria indicates _____ limits in quality control of herbal drugs (1)
- | | | | |
|-----------------|--------------|----------------|------------------|
| 1) Alphabetical | 2) Numerical | 3) Therapeutic | 4) None of these |
|-----------------|--------------|----------------|------------------|
- 15) Tests, procedures, acceptance criteria, and limits are the part of (1)
- | | | | |
|-------------------|--------------------|------------|------------------|
| 1) Specifications | 2) Standardization | 3) Markers | 4) None of these |
|-------------------|--------------------|------------|------------------|
- 16) Human healthy volunteers are involved in Phase ____ of clinical trials (1)
- | | | | |
|------|-------|--------|-------|
| 1) I | 2) II | 3) III | 4) IV |
|------|-------|--------|-------|
- 17) The main objective of clinical trials is to validate _____ of medicine (1)
- | | | | |
|-----------|------------|---------------|-------------|
| 1) Safety | 2) Quality | 3) Estimation | 4) Quantity |
|-----------|------------|---------------|-------------|
- 18) Database related to herbal medicine and natural products are established in which of the following countries? (1)
- | | | | |
|----------|----------|------------------|-----------------|
| 1) China | 2) Japan | 3) United States | 4) All of these |
|----------|----------|------------------|-----------------|
- 19) Ayurvedic Pharmacopoeia of India came to existence in (1)
- | | | | |
|---------|---------|---------|---------|
| 1) 1992 | 2) 1983 | 3) 2010 | 4) 1962 |
|---------|---------|---------|---------|
- 20) Misbranded drugs has been defined and is under the section (1)
- | | | | |
|--------|---------|----------|----------|
| 1) 33E | 2) 33EE | 3) 33EEA | 4) 33EEB |
|--------|---------|----------|----------|

II Long Answers

Answer all the questions.

- 1) Discuss various identification tests for Alkaloids, Glycosides, Steroids and Proteins (3+3+2+2=10 Marks) (10)
- 2) Explain role of Chemical and Biological markers in standardization of Herbal products. (10)

III Short Answers**Answer all the questions.**

- 1) Describe the SOPs for the controlled cultivation of medicinal plants (5)
- 2) Explain the GLP (NGCMA) formation, scope and certification in India (5)
- 3) Explain HPTLC is a tool for standardization and quality control of herbal drugs (5)
- 4) Explain the challenges in stability testing of herbal drugs compared to synthetic drugs. (5)
- 5) Define and distinguish between herbal substance, herbal preparation and herbal medicinal product with suitable examples. (5)
- 6) Briefly discuss various steps involved in Research studies. (5)
- 7) Write a note on Comparison of Indian Herbal and British Herbal Pharmacopoeia. (5)

-----End-----