

Exam Date & Time: 15-Jul-2022 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Quality Control and Standardization of Herbals [PCO-BP806ET-S2]

Marks: 75

Duration: 180 mins.

I Multiple Choice Questions (MCQs)

Answer all the questions.

Section Duration: 30 mins

- 1) The finished goods transferred from the production area after proper packing shall be stored in the finished goods stores, marked as

1) Finished goods stock	2) Quarantine	3) Finished product	4) None
-------------------------	---------------	---------------------	---------

- 2) Fertilizers should be applied sparingly to minimise

1) Erosion	2) Leaching	3) Tillage	4) Weeds
------------	-------------	------------	----------

- 3) National GLP compliance monitoring authority was established by DST India in the year

1) 1972	2) 1970	3) 2002	4) 2010
---------	---------	---------	---------

- 4) Following is the environmental factor in GACP does not come under CLIMATE

1) Radiation	2) Temperature	3) Mutation	4) Altitude
--------------	----------------	-------------	-------------

- 5) India became full-member for Mutual Acceptance of Data (MAD) in the OECD's working group on GLP from

1) March 2011	2) November 2021	3) January 1972	4) None of the above
---------------	------------------	-----------------	----------------------

- 6) Precautions to be taken during collecting of bark includes

1) The tree should not be stripped completely	2) Only longitudinal strips of bark is cut along one side of the tree	3) Spring is the ideal time of collection	4) All of the above
---	---	---	---------------------

- 7) To dry powder or extract, add 5ml of 95% ethanol, few drops of conc. HCl and 0.5 g of magnesium turnings. Pink colour observed

1) Biuret test	2) Salkowski test	3) Benedict's test	4) Shinoda test
----------------	-------------------	--------------------	-----------------

- 8) It exhibits Haemolytic activity because of the presence of _____ (1)

1) Mucilage	2) Volatile oil	3) Saponin	4) Proteins
-------------	-----------------	------------	-------------

9) Histochemical detection, anatomy, leaf constants, linear measurements covered under

1) Morphological evaluation	2) Pharmacological evaluation	3) Microscopic evaluation	4) Physical evaluation	(1)
-----------------------------	-------------------------------	---------------------------	------------------------	-----

10) Atomic absorption spectrophotometry is used to determine

1) Moisture content	2) Pesticide residue	3) Heavy metal	4) Chemical marker	(1)
---------------------	----------------------	----------------	--------------------	-----

11) DDT is categorized in which of the following type of pesticide

1) Organophosphorus pesticides	2) Carbamates	3) Inorganic pesticides	4) Chlorinated hydrocarbon pesticides	(1)
--------------------------------	---------------	-------------------------	---------------------------------------	-----

12) Following is considered as chemical change of herbal product

1) Crystal growth	2) Polymorph change	3) Hydrolysis of constituent	4) Colour change	(1)
-------------------	---------------------	------------------------------	------------------	-----

13) Column Chromatography is used for

1) Identification of phytoconstituents	2) Isolation of phytoconstituent	3) Analysis of phytoconstituent	4) Extraction of phytoconstituent	(1)
--	----------------------------------	---------------------------------	-----------------------------------	-----

14) Which of the following is NOT included in Herbal preparations?

1) Tinctures	2) Extracts	3) Isolated compounds	4) Expressed juices	(1)
--------------	-------------	-----------------------	---------------------	-----

15) Which of the following is NOT healthcare professions?

1) Pharmacy	2) Medical	3) Nursing	4) Engineering	(1)
-------------	------------	------------	----------------	-----

16) Post marketing surveillance in case of herbal medicines is involved in ____ phase of clinical trials

1) I	2) II	3) III	4) IV
------	-------	--------	-------

17) Which of the following is NOT a part of protocol preparation?

1) Literature survey	2) Technology transfer	3) Working hypothesis	4) Ethical aspects	(1)
----------------------	------------------------	-----------------------	--------------------	-----

18) Database related to herbal medicine and natural products are NOT established in which of the following country?

1) China	2) Japan	3) United States	4) Africa
----------	----------	------------------	-----------

19) British Herbal Pharmacopoeia was published in the year

1) 1992	2) 1983	3) 2010	4) 1975	(1)
---------	---------	---------	---------	-----

--	--	--	--	--	--	--	--	--	--	--	--	--

20) Adulterated drugs have been defined and is under the section

1)	33E		2)	33EE		3)	33EEA		4)	33EEB	
----	-----	--	----	------	--	----	-------	--	----	-------	--

(1)

II Long Answers

Answer all the questions.

- 1) Describe the procedure and importance of determination of Ash value and extractive value. (5+5=10 Marks) (10)
- 2) What is pharmacovigilance? Describe the Challenges in monitoring the safety of herbal medicines and Safety monitoring of herbal medicines. (10)

III Short Answers

Answer all the questions.

- 1) Describe the good collection practices as per GACP guidelines. (5)
- 2) Enlist the infrastructural facilities required for the herbal drug industry as per GMP. Add a note on personal hygiene and premises 2+3=5M (5)
- 3) Explain various issues in stability testing of herbal products (5)
- 4) Explain the Licence requirement various classes of ASU preparations (5)
- 5) Write a note on Specification, Herbal teas and DER with their significance. (5)
- 6) Give a brief account of research guidelines for the following (5)
 - A. Quality specifications of the plant materials and preparations
 - B. Pharmaco-dynamic and pharmacological studies of herbal medicines
- 7) Write a note on role of chemical markers in standardization of Herbal products. (5)

-----End-----

