



(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2018/2019 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER EXAMINATIONS

FOR THE DEGREE

OF

BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES

COURSE CODE: BML 325

COURSE TITLE: PHARMACOGNOSY

EXAM: **MAIN**

DATE: 29TH MAY 2019

TIME: 8.00 -10.00 AM

INSTRUCTIONS TO CANDIDATES

This paper is divided into three sections, A, B and C, carrying respectively: Multiple Choice Questions (MCQ), short answered Questions (SAQs) and Long Answer (LAQs). Answer ANY TWO Questions.

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating.

This paper consists of 5 printed pages. Please Turn Over

SECTION A: ANSWER ALL QUESTIONS (MCQS) [20 MARKS]

1. Is known as father of medicine?
 - A. Aristotle
 - B. Dioscorides
 - C. Hippocrates
 - D. Galen
2. Choose the correct answer in the following question: Which is false:
 - A. The alphabetical system of classification is popular in the pharmacopoeias.
 - B. An advantage of the taxonomical system of classification is that it is devoid of ambiguities
 - C. The pharmacological classification is decreasing in use
 - D. Leaves and seeds are examples of organized drugs.
3. Drug is not under the class of organized drug :
 - A. Leaves
 - B. Flowers
 - C. Fruits
 - D. Gums
4. Select the drug, which is not belonging to glycoside class?
 - A. Digitalis
 - B. Senna
 - C. Nux vomica
 - D. Cascara
5. Select the drug, which is not belonging to tannin class?
 - A. Myrobalam
 - B. Pale catechu
 - C. Ashoka
 - D. Peppermint
6. Is not the function of cell wall of the plant?
 - A. Protect the protoplast
 - B. Provide mechanical support to the organ
 - C. check the rate of transpiration
 - D. Give green colour to leaf
7. Drug is not an example of organized crude drug :
 - A. Digitalis
 - B. Cinchona
 - C. Aloe
 - D. Clove
8. Who makes the active components of medicines?
 - A. Pharmacists
 - B. Chemists
 - C. Doctors
 - D. Pharmacologists
9. What is a semi-synthetic drug?
 - A. drug isolated from nature and used without any further modification

- B. A drug made entirely in a lab from scratch
 - C. The structure of a drug half-way through its preparation
 - D. A drug which has been part-made by nature and part-made in a lab
10. Paclitaxel, the potent anticancer drug, was isolated from which natural source?
- A. The Pacific Yew tree
 - B. The Pacific Ocean
 - C. A fungus
 - D. A bacteria
11. True alkaloids are always present in plants as
- A. Salts of organic acid
 - B. Salts of inorganic acid
 - C. Salts of meconic acid
 - D. Salts of benzoic acid
12. Which of the following is the advantage of collecting medical herbs from their natural habitat?
- A. The whole process (culturing, harvesting, etc.) can be controlled
 - B. The appropriate harvesting and quality can be guaranteed
 - C. The stock is homogeneous
 - D. No culturing costs are involved
13. Drug not belonging to volatile oil class:
- A. Peppermint
 - B. Clove
 - C. Castor oil
 - D. Garlic
14. Which of the following is the assay for determination of the volatile oil contents of herbal drugs?
- A. Steam distillation
 - B. Extraction with light petrol
 - C. Distillation by Marcusson's method
 - D. Determination of the loss on drying
 - E. Determination of the alcoholic extract
15. How to protect the drugs against the undesirable postmortal changing?
- A. Dry the plant material so quickly as soon as possible.
 - B. Moistened the plant material with a calculated amount of water and keep it in a refrigerator.
 - C. The plants are stored at a cold place in covered container.
 - D. Put the plant material in a hermetically sealed container and kept it at room

- temperature.
16. The undissolved portion of the drug that remains after extraction:
- A. Solute
 - B. Marc
 - C. Solvent
 - D. Active drug
17. Which of the following statements relating to the traditional herbal medicinal products is false?
- A. .Attributing a preventive or curative effect to these products is forbidden
 - B. They contain one or more herbal substances, preparations or their combination as active agents.
 - C. The products may also contain vitamins and minerals
 - D. Their authorization is possible via abridged registration
18. Which of the following methods is used to get alkaloids in base form from plant material?
- A. Adding ammonium hydroxide and water to the pulverized drug
 - B. Making an extract with mineral acid and organic solvent
 - C. Making an extract with base and organic solvent
 - D. Adding mineral acid and water to the powdered drug
 - E. Making an extract with organic solvent and warming it.
19. Leaves and herbs should be collected at which stage?
- A. Flowering stage
 - B. Before flowering stage
 - C. When they are fully developed
 - D. At any stage of development
20. Freeze drying is used for preservation of which crude drugs?
- A. Heat stable drugs
 - B. Heat sensitive drugs
 - C. Water sensitive drugs
 - D. pH sensitive crude drugs

SECTION B: ANSWER ALL QUESTIONS [40 MARKS]

21. Write short notes on the following [2x3 Marks]
- i. Indigenous system of medicine
 - ii. Storage of crude drugs
22. State the significance of pharmacognosy in various systems of medicine [5 Marks]
23. Highlight the importance of edaphic factors in the cultivation of medicinal plants [6 Marks]
24. Give a systematic procedure for identification of powdered drugs [6 Marks]
25. Briefly describe the use of crude drugs in the traditional system of medicine [6 Marks]
26. State six active ingredients that may be found in medicinal plants [5 Marks]
27. i. Define and classify evaluation [3 Marks]
- ii. State the evaluation of crude drugs by physical methods [3 Marks]

SECTION C: ANSWER BOTH QUESTIONS [40 MARKS]

28. Discuss the merits and demerits of collection of crude drugs from wild and cultivated sources [20 Marks]
29. Explain in detail the methods of crude drug evaluation and standardisation [20 Marks]