

**W1-2-60-1-6**

JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

# **UNIVERSITY EXAMINATIONS 2018/2019**

FOURTH YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SCIENCE AND NUTRITION

**AFN 2407 : NUTRITIONAL PHARMACOLOGY**

DATE: APRIL 2019 TIME: 2 HOURS

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**INSTRUCTIONS:**

**ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS**

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**QUESTION ONE [30 MARKS]**

1. Define the following terms:
2. Medicinal chemistry [0.5 marks]
3. Ionization constant [0.5 marks]
4. Isomerism [0.5 marks]
5. Dextrorotatory [0.5 marks]
6. Bioisosterism [0.5 marks]
7. Stereochemistry [0.5 marks]
8. Briefly explain the sources of drugs giving examples [6 marks]
9. Briefly explain these sources of drug information [3 marks]
10. Systemic bio availability can be limited by some factors,. Enumerate them and state the remedy of each. [12 marks]
11. Enumerate any six routes of drug administration [3 marks]
12. Differentiate between the following terms:-
13. Phrmacodynamics and pharmacokinetic [2 marks]
14. Analogue and pro drug [2 marks]
15. Lipophilic and hydrophilic [2 marks]
16. Drugs can be classified by their medicinal uses. Give these categories on this basis. [2 marks]
17. Enumerate six factors that act as risk factor for drug/food and drug/nutrient interaction .[2 marks]

**QUESTION TWO [20 MARKS]**

Discuss mechanisms of drug action

**QUESTION THREE [20 MARKS]**

Describe pharmacokinetics in influence to protein therapeutics

**QUESTION FOUR [20 MARKS]**

Discuss drug toxicology