FACULTY: Basic and Applied Sciences
DEPARTMENT: Physical and Chemical Sciences
FIRST SEMESTER EXAMINATIONS
2018/2019 ACADEMIC SESSION

COURSE CODE: **BCH 405**
COURSE TITLE: **TOXICOLOGY**
DURATION: **120 MINS**

HOD's SIGNATURE

Instruction: Attempt any three (3) of the five (5) questions

1) Write short notes on the following types of transport mechanisms.

i) Simple diffusion ----- 5 marks

ii) Facilitated diffusion ----- 5 marks

iii) Active transport ----- 5 marks

iv) Vesicular transport ----- 5 marks

2) Explain the effects of dose and time on the toxicity of xenobiotics. ----- 14 marks

2b) Explain the effects of environmental factors on metabolism of xenobiotics

2c) From the equation for the dose of drug in the body ($X_I = V_D C_p$) derive the equation,

$\oint_0^x$ Cp dt = AUC that relates plasma concentration of drug to area under the curve. - 6 marks

3a) What do you understand by Apparent volume of distribution? ----- 2 marks

3b) What do you understand by peripheral and central compartments? Give two examples of each. ----- 5 marks

3c) With the aid of a well-labeled diagram describe the structure GABA A receptor.13 marks

4) Describe extensively the enterohepatic circulation of xenobiotics. -----20 marks

5a) Using two named examples of enzymes explain genetic polymorphism. -----10 marks

5b) write short note on the following phase two reactions.

i) Glutathione conjugation ii) Sulfoconjugation -----10 marks