



ELIZADE UNIVERSITY,
ILARA-MOKIN, NIGERIA

FACULTY: BASIC & APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

FIRST SEMESTER EXAMINATION

2019/2020 ACADEMIC SESSION

COURSE CODE: EMT 407

COURSE TITLE: PRINCIPLES OF TOXICOLOGY I

COURSE UNIT: 3 UNITS

DURATION: 2^{1/2} HOURS

HOD's SIGNATURE

06/02/2020

NAME:.....

MAT. No:.....

INSTRUCTIONS Answer any two questions from each section

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SECTION A

1. (a) Write a brief history on 'Toxicology'
(b) What are the characteristics of a Biotoxin
(c) Structurally, show the methylation that are involved in the activation of catecholamines
(d) Elucidate the health effects that may be elicited upon exposure to any three types of Freshwater Algal toxins (15 marks)

2. (a) Explain concisely the various sources of toxins
(b) Discuss the various factors that affect biotransformation
(c) Discuss briefly, the signs and symptoms associated with *Ricinus communis*
(d) With the aid of a suitable structure and example show reduction reaction of a Phase I type of biotransformation. (15 marks)

3. (a) Cytochrome P-450 (CYPs) are superfamily of enzyme needed for biotransformation, Discuss.
(b) With the aid of a suitable chart show the purpose of Phase I and Phase II reactions in Biotransformation
(c) What are the susceptibility factors to teratogenesis?
(d) Explain briefly glucuronidation process in Phase II reaction (15 marks)

SECTION B

4. (a) Describe the mechanisms of toxicant toxicity in the blood
(b) Discuss different classes of hepatoxins (15 marks)

5. (a) Discuss effects caused by the nephrotoxins
(b) Mention three (3) examples of toxicants that can affect the kidney (15 marks)

6. (a) Explain the mechanism of action of toxic gases in the respiratory system
(b) Discuss briefly on "Neuronopathies" and give examples of compounds associated with neuronal injury (15 marks)