



ELIZADE UNIVERSITY, ILARA – MOKIN, ONDO STATE, NIGERIA
DEPARTMENT: PHYSICAL AND CHEMICAL SCIENCES
FIRST SEMESTER EXAMINATIONS: 2018/2019 ACADEMIC SESSION
COURSE CODE: CHM 357 COURSE TITLE: NATURAL PRODUCT
CHEMISTRY 1

HOD's SIGNATURE

DURATION: 2 HOURS

INSTRUCTIONS: ATTEMPT THREE QUESTIONS ONLY

Question One

- a) What are steroids? [4 marks]
- b) Write short notes on the following headings:
 - i. Corticosteroids [4 marks]
 - ii. Steroid Synthesis [4 marks]
 - iii. Steroidogenesis [4 marks]
 - iv. Steroid degradation [4 marks]

Question Two

- a) What are alkaloids? [3 marks]
- b) Mention and discuss three types of alkaloids. [6 marks]
- c) Describe a named reaction involved in the biosynthesis of alkaloids [5 marks]
- d) Discuss the uses of alkaloids under the following headings:
 - i. Agriculture [3 marks]
 - ii. Medicine [3 marks]

Question Three

- a) Describe the structure of gonane [4 marks]
- b) State five properties of an alkaloid [5 marks]
- c) State the classes of steroids based on chemical composition [5 marks]
- d) Briefly highlight the processes of extraction of an alkaloid [6 marks]

Question Four

- a) Distinguish between terpene and terpenoid [4 marks]
- b) With the aid of chemical reactions, briefly describe the biosynthesis of terpene [6 marks]
- c) Discuss the classification of terpene based on the number of isoprene unit [6 marks]
- d) Distinguish between acyclic and cyclic sesquiterpenes [4 marks]