



NATIONAL OPEN UNIVERSITY OF NIGERIA
UNIVERSITY VILLAGE, PLOT 91 CADASTRAL ZONE, NNAMDI AZIKIWE
EXPRESS WAY,
JABI - ABUJA.
FACULTY OF SCIENCES
DEPARTMENT OF CHEMISTRY
2024 I EXAMINATION

COURSE CODE: CHM 318

COURSE TITLE: NATURAL PRODUCT CHEMISTRY I

COURSE UNIT: 2

TIME: 2 HOUR

INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS

Question one score 30 marks with the other two scoring 20 marks each

QUESTION ONE

- (1a) i. Identify the constituent of prenolipids (3 marks)
ii. Enumerate the composition of Oleoresin (3 marks)
- (1b) i. In both mevalonic acid and pathway and MEP/DOXP pathway biosynthesis of terpenes, what are the ends products? (2 marks)
ii. State four applications of essential oils (4 marks)
- (1c) i. How many isoprene units are in sesquiterpenes? (3 marks)
ii. Identify the number of isoprene units that are in Rubber. (3 marks)
- (1d) i. What are the numbers of Isoprene units found in sesterpenes? (2 marks)
ii. State the roles of Abscisic acid in plants (4 marks)
- (1e) i. State the importance of limonene in agriculture (2 marks)
ii. Name the sesquiterpene dimer that is found in cotton. (2 marks)
iii. Enumerate two medicinal importance of monoterpenes (2 marks)

QUESTION TWO

- (2a) Identify the diterpenoid groups that are physiologically active and give there uses (8 marks)
- (2b) Give any six examples of diterpenes substance (6 marks)