

Bms/14/15/0383

OLABISI ONABANJO UNIVERSITY  
DEPARTMENT OF BIOCHEMISTRY  
REMO CAMPUS, IKENNE

2016/2017 HARMATTAN SEMESTER EXAMINATION

Course: BCH 303  
Course Title: Metabolism of Lipids

Time Allowed: 2 hours  
Date: 17 February 2017

Instruction: Answer all questions

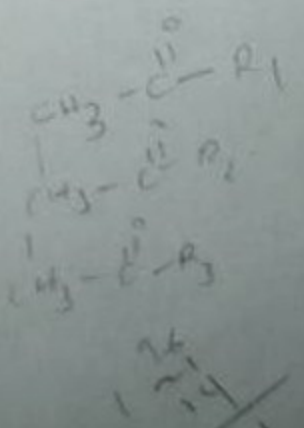
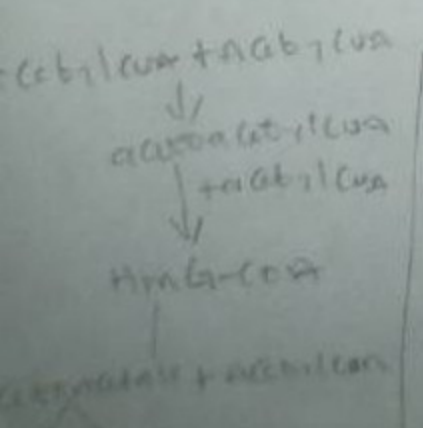
1. (a) Define the following terms
  - i. Essential fatty acids
  - ii. Ketonuria
- (b) List the four (4) pathways by which saturated fatty acids are oxidized
- (c) Summarize the degradation of palmitic acid by stating the following
  - i. The number of cycles
  - ii. The total number of ATP generated
2. (a) Using pathways ONLY, describe the biosynthesis of ketone bodies
- (b) List five (5) disorders of lipid metabolism
3. (a) List the classes of lipids and write briefly on one (1) of them.
- (b) Write short notes on any one (1) of the following:
  - i. Prostaglandins
  - ii. Triacylglycerols
  - iii. Phospholipids
4. (a) What are amphipathic lipids?
- (b) Write short notes on the following:
  - i. Lipid bilayer
  - ii. Micelles

Simple lipid  
ester of fatty acid  
with alcohol  
complex  
ester of  
with  
Comp  
sph  
phos  
Glyce  
CH

hydrophobic  
phobic

monomer  
1, 2, 3

SCAN



12  
+8  
16

12  
+14  
26

13

7  
32.5  
15