



**CRAWFORD UNIVERSITY**  
**FAITH CITY, IGBESA, OGUN STATE**  
**2016/2017 RAIN SEMESTER EXAMINATIONS**

**COLLEGE: NATURAL AND APPLIED SCIENCES**

**DEPARTMENT: BIOLOGICAL SCIENCES**

**UNIT: BIOCHEMISTRY**

**COURSE CODE: BCH 214 COURSE UNIT: 2 TIME ALLOWED: 2 HOURS**

**COURSE TITLE: METABOLISM OF LIPIDS**

**INSTRUCTION: ANSWER ANY FOUR QUESTIONS**

- 1 Describe briefly the digestion and absorption of lipids
- 2 Describe the steps involved in the activation of fatty acids. Illustrate with clear diagrams
- 3 Describe fully the  $\beta$ -oxidation of palmitic acid. Illustrate your answer with appropriate equations
- 4(a) Describe the  $\beta$ -oxidation of a named unsaturated fatty acid.  
(b) List the additional enzymes required for the  $\beta$ -oxidation of unsaturated fatty acids which are not required for the  $\beta$ -oxidation of saturated fatty acids
- 5 (a) Give biological reasons for ketogenesis.  
(b) Account for the contribution of oxaloacetate to ketogenesis.
- 6 Mention the biological roles of cholesterol. Describe how it is transported in humans.