OLABISI ONABANJO UNIVERSITY
DEPARTMENT OF BIOCHEMISTRY
REMO CAMPUS, IKENNE

2015/2016 HARMATTAN SEMESTER EXAMINATION

COURSE CODE: BCH 415   **TIME ALLOWED:** 3 Hours
COURSE TITLE: Advanced Biochemical Methods   **DATE:** 6th April, 2016

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SECTION A

INSTRUCTIONS: Answer all questions.

1. In an attempt to determine the concentration of protein in a given sample, a student prepared a standard solution (10mg/ml) and used the Biuret method. He obtained the following data

Concentration of protein (mg/ml)	0.00	1	2	3	4	5	6
Absorbance at 660nm	0.00	0.17	0.32	0.44	0.59	0.78	0.95

(i)   What is a standard solution?

(ii)   Construct a standard curve from the data.

(iii) Given that the absorbance of 1ml of the sample diluted to 10ml is 0.25; calculate the concentration of protein in mg/ml.

(iv)   The student did the experiment in triplicate. Why?

SECTION B

INSTRUCTIONS: Answer four (4) questions.

1. Write a short note on the application of a bioreactor in the production of biogas.

2. (a) Name three methods employed in purifying enzymes.
    (b) Briefly describe two (2) of these methods.

3. (a) Write short and concise notes on two (2) methods of determining the purity of an enzyme.

4. How will you determine the (i) kinetic parameters (ii) effect of temp (iii) effect of pH of an enzyme in the laboratory?

5. Describe the following methods and their applications.
    (i) PAGE
    (ii) Centrifugation