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OLABISI ONABANJO UNIVERSITY

BIOCHEMISTRY DEPARTMENT

REMO CAMPUS, IKENNE

2016/2017 HARMTTAN SEMESTER EXAMINATION

Course Code: BCH 415 **Course Title: Advanced Biochemical methods** **Time Allowed: 2hours**

Instruction: Answer all questions **Date: 16/02/2017**

1. (a) Briefly describe how you will purify an enzyme with a net positive charge contaminated with other proteins with net negative or neutral charges.

(b) When do you consider an enzyme to be pure?

(c) Complete the table below with the correct answer.

Purification Steps	Total Volume(ml)	Total Protein(mg/ml)	Total Activity(u)	Specific Activity(u/mg)	Yield %	Purification fold
Crude enzyme	10	0.504	1.377	2.73	100	1
70% $NH_4(SO4)_2$	5.5	0.090	1.419	15.77		
Affinity chromatography	17	0.012	2.023	168.58		61.695

2. (a) Describe how you will determine the subunit molecular weight of a protein

(b) Explain the purpose of each of the following chemical reagents that are used for PAGE;

i. Acrylamide ii. N,N'methylene-bisacrtlamide iii. TEMRD iv. SDS V. Coomassie blue die vi. bromophenol blue.

3. (a) Explain the advantages of internet facility through the mobile phone as a compliment to the University Library.

(b) Explain precisely how you would write up your research project, explaining every chapter/part of the entire write up from the cover page to the end.