OLABISI ONABANJO UNIVERSITY, AGO-IWOYE

FACULTY OF BASIC MEDICAL SCIENCES

BIOCHEMISTRY DEPARTMENT

2017/2018HARMATTAN SEMESTER EXAMINATION

Course Code: Bch 415 Time: 2 hours 30 minutes

Course Title: Advanced Biochemical Methods Date 6th February, 2018

Instruction: Answer all questions

1. (a) How will you prepare your sample prior to carbohydrate analysis in a given food sample? Assume the carbohydrate is bound or associated with other components.

   (b) Give a detailed description of an analytical technique which could be employed in the analysis of the sugary sample isolated in (a) above.

   (c) State the principle employed in the technique described in (b)

2. You are asked to purify an enzyme of known assay procedure from a bacteria.

   (a) List the bacterials you will use to isolate and purify this enzyme to homogeneity.

   (b) How will you ascertain the bacteria contain the enzyme of interest?

   (C) Describe a purification method based on the molecular mass of the enzyme

3. (a) Complete the purification table below, inserting units where necessary.

Purification steps	Total protein ( )	Total activity (U)	Specific activity ( )	Purification fold	Yield ( )
Crude extraction	0.1530	0.120		1	
Ammonium sulphate precipitation	0.0620	0.372	6.000		
Ion exchange chromatography	0.0074	1.400			

   (b) State five characters that can be used to describe an enzyme

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