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DEPARTMENT OF BIOCHEMISTRY

2018/2019 HARMATTAN SEMESTER EXAMINATION

BCH415 ADVANCED BIOCHEMICAL METHODS (3 UNITS)

TIME 3HRS

ANSWER ANY FOUR (4) QUESTIONS

- 1a. Describe the usefulness of centrifuges, rotary evaporators and orbital shakers in Folch method of lipid separation.
 Shaker → centrifuge → solvent extraction
- b. Explain the process of separation of Lipid fractions by TLC
- 2a. List four chromatographic methods that can be used to separate sugars.
- b. Mention the basis for carbohydrate's separation by chromatographic techniques *→ based on size*
- c. How is electrophoresis different from chromatography
- 3a. State the use(s) of the following reagents in analysis of protein:
- | | |
|-----------------------|---|
| i. Collidine | ii. chloramine-T |
| iii. Bromophenol Blue | iv. Mercaptoethanol |
| v. Ninhydrin | vi. Fluorescamine <i>→ Sucrose</i> |
| vii. FDNB <i>→</i> | viii. Dansyl Chloride <i>→ 7.5-10.5</i> |
| ix. Ehrlich reagent | x. Acrylamide |
- b. i. What is Electrophoresis?
- ii. What are the main principles of Electrophoresis?
- iii. List the major components of the electrophoretic apparatus.
 Support media, buffer, chamber, medium, Electrophoretic unit, Power Pack
- 4a. Explain how you will make good use of the university or any library in writing up your project.
- b. What are the components (chapters inclusive) of BCH final year project?
- c. List five (5) journals in Biochemistry.
- d. How will you write a journal article?
- 5a. List five characters by which an enzyme could be described.
- b. Describe briefly how the optimum temperature of an enzyme is determined.