



RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES

B.Sc. (General) Degree

Third Year Semester I Examination – Oct / Nov 2014

CHE 3105 – OILS AND FATS

Answer any four (04) questions.

Time: 01 hour

1. (a). Write a short note on essential fatty acids (10 marks)
 (b). Discuss the differences between IUPAC nomenclature and omega nomenclature of fatty acids. Draw the structures of one essential fatty acid write the name using both IUPAC and omega nomenclature. (15 marks)
2. (a). Write a note on extraction of Lipids using Bligh & Dyre method and compare the method with Soxhlet extraction method (15 marks)
 (b). Explain the term “Polymerization” in Lipids (10 marks)
3. (a). What are the advantages of refining of fats and oils (10 marks)
 (b). Discuss the “Bleaching” process used during refining of fats and oils (15 marks)
4. (a). Write a short note on Applications of Surfactant (10 marks)
 (b). List out the types of surfactants commonly used in the industry (05 marks)
 (c). Describe the Amphoteric (Zwitterionic) surfactants used for cleaning purposes (10 marks)
5. (a). Discuss the “Hardening” process during manufacturing of Margarine. (10 marks)
 (b). Explain the importance of “Homogenization” step during Ice cream production (10 marks)
 (c). Briefly describe the chemical reaction involve in the preparation of Biodiesel from oil. (05 marks)