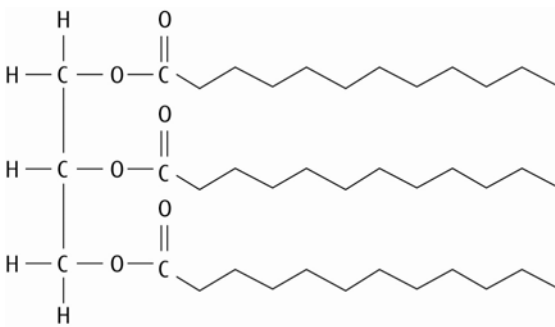
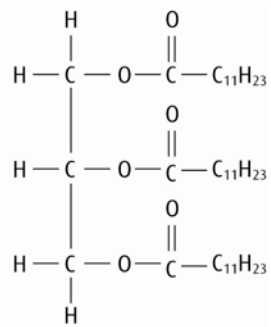


## Marking scheme for Core Worksheet – Option F

- 1** food = any substance that is intended for human consumption [1]
- nutrient = any substance obtained from food and used by the body to provide energy, regulate growth/or to maintain and repair the body's tissues [1]
- 2**
- a** saturated: lauric acid and palmitic acid [1]  
unsaturated: oleic acid and linolenic acid [1]
- b** palmitic acid has higher melting point [1]  
higher relative molecular mass, therefore stronger van der Waals' forces between molecules [1]
- c** linolenic acid has lower melting point [1]  
more C=C bonds present [1]  
kinked structure prevents chains from packing together as closely, therefore weaker intermolecular forces [1]
- d** [2]
- 

or


- 3**
- a** Shelf life is the period of time for which a food retains the desired qualities expected by the consumer. [1]
- b** water content [1]  
pH/chemical changes [1]  
light [1]  
temperature [1]  
contact with air [1]
- c** hydrolytic rancidity: fats and oils are broken down into their constituent fatty acids and glycerol [1]  
oxidative rancidity: the fatty acid chains are oxidised when oxygen adds across C=C double bonds of unsaturated fatty acids [1]
- 4**
- a** a substance that delays the onset or slows down the process/rate of oxidation [1]
- b** phenol [1]
- c** ester [1]
- d** ketone [1]
- e** ether [1]

- 5**
- a** A dispersed system can be defined as a kinetically stable mixture of one phase (dispersed phase) within another, largely immiscible, phase (continuous phase). [1]
  - b** foam [1]
  - c** continuous phase is liquid cream [1]  
dispersed phase is air [1]