

## BAB 5: SEBATIAN KARBON

## 5.4 : Lemak

## 5.5: Minyak Sawit

## LATIHAN 2 : Jawab soalan berikut.

- 1 Maklumat berikut menunjukkan ciri-ciri bahan M.

The following information shows the characteristics of substance M.

- Berbentuk pepejal pada suhu bilik  
Solid in room temperature
- Diperoleh daripada haiwan  
Obtained from animals

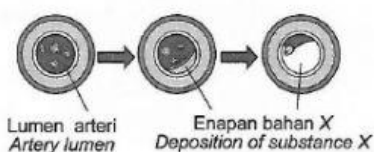
Apakah bahan M?

What is substance M?

- ☐ A Lemak tepu  
Saturated fat
- ☐ B Lemak tak tepu  
Unsaturated fat
- ☐ C Karbohidrat  
Carbohydrate
- ☐ D Detergen  
Detergent

- 2 Rajah 1 menunjukkan perubahan dalam lumen arteri

Diagram 1 shows the changes in the lumen of an artery.



Rajah 1 / Diagram 1

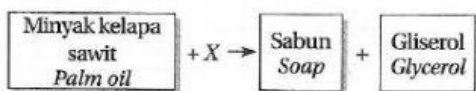
Makanan yang manakah jika diambil secara berlebihan boleh menyebabkan enapan bahan X pada dinding arteri?

Which food if taken in excess can cause the deposition of substance X on the arterial wall?

- ☐ A Susu segar  
Fresh milk
- ☐ B Mentega kacang  
Peanut butter
- ☐ C Minyak ikan  
Fish oil
- ☐ D Minyak zaitun  
Olive oil

- 3 Persamaan perkataan berikut menunjukkan proses saponifikasi.

The following word equation shows the saponification process.



Apakah X?

What is X?

- ☐ A Alkali / Alkali
- ☐ B Asid / Acid
- ☐ C Glukosa / Glucose
- ☐ D Natrium klorida / Sodium chloride

- 4 Antara yang berikut, yang manakah menunjukkan perbezaan yang betul antara lemak tepu dan lemak tak tepu?

Which of the following correctly shows the difference between saturated fat and unsaturated fat?

|   | Lemak tak tepu<br>Unsaturated fat                                                                 | Lemak tepu<br>Saturated fat                                                                                    |
|---|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| A | Berasal daripada haiwan<br>Originates from animals                                                | Berasal daripada tumbuhan<br>Originates from plants                                                            |
| B | Cecair pada suhu bilik<br>Liquid at room temperature                                              | Pepejal pada suhu bilik<br>Solid at room temperature                                                           |
| C | Takat lebur tinggi<br>High melting point                                                          | Takat lebur rendah<br>Low melting point                                                                        |
| D | Bilangan atom hidrogen maksimum dalam molekul<br>Maximum number of hydrogen atoms in the molecule | Bilangan atom hidrogen dalam molekul belum maksimum<br>Number of hydrogen atoms in the molecule is not maximum |

- 5 Berikut ialah senarai langkah-langkah dalam pengekstrakan minyak sawit.

Below is the list of steps in palm oil extraction.

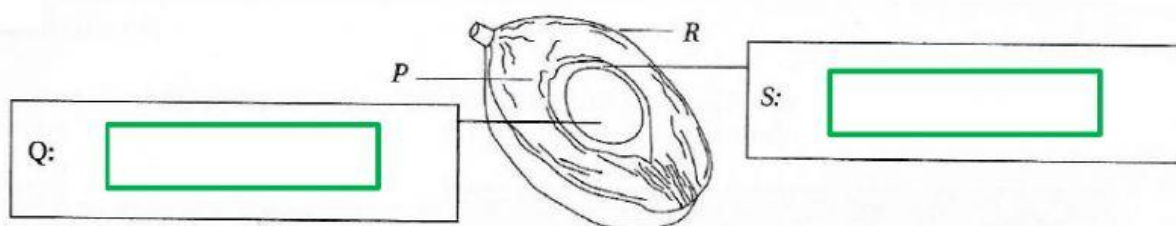
|   |                                                                                                                              |
|---|------------------------------------------------------------------------------------------------------------------------------|
| J | Pulpa diperah dan dimampatkan menggunakan mesin hidraulik<br>The pulps are squeezed and compressed using a hydraulic machine |
| K | Buah kelapa sawit disteril pada suhu dan tekanan tinggi<br>Oil palm fruits are sterilised at a high temperature and pressure |
| L | Minyak sawit melalui karbon aktif bagi menyahwarna<br>Palm oil is passed through activated carbon to decolourise             |
| M | Buah kelapa sawit ditanggalkan daripada tandannya<br>The oil palm fruits are removed from their bunches                      |
| N | Serat pulpa dipisahkan daripada minyak sawit<br>Pulp fibres are separated from the palm oil                                  |

Urutan langkah yang manakah betul dalam proses pengekstrakan tersebut?

Which is the correct sequence of steps in the extraction process?

- ☐ A M, K, N, J, L
- ☐ B M, J, N, K, L
- ☐ C K, N, J, L, N
- ☐ D K, M, J, N, L

- 6 Rajah 2 menunjukkan keratan rentas buah kelapa sawit.  
Diagram 2 shows a cross-section of oil palm fruit.



Rajah 2 / Diagram 2

- (a) Labelkan bahagian Q dan S dalam rajah di atas.  
Label parts Q and S in the diagram above.

[2 markah/marks]

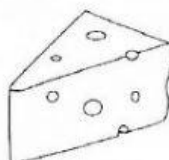
- (b) Bahagian manakah pada buah kelapa sawit yang menghasilkan paling banyak minyak?  
Which part of the oil palm fruit produces the most oil?

[1 markah/mark]

- (c) Namakan proses untuk menghasilkan minyak kelapa sawit daripada buahnya.  
Name the process to produce palm oil from the oil palm fruit.

[1 markah/mark]

- (d) Tandakan bahan yang diperbuat daripada minyak kelapa sawit pada rajah di bawah.  
Ticks the items made from palm oil in the diagram below.


☐

☐

☐

[1 markah/mark]