

## 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*

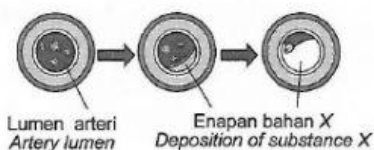
Apakah bahan M?

*What is substance M?*

- ☐ A Lemak tepu  
*Saturated fat*
- C Karbohidrat  
*Carbohydrate*
- B Lemak tak tepu  
*Unsaturated fat*
- 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

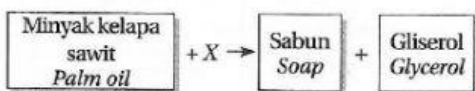
Makanan yang manakah jika diambil secara berlebihan boleh menyebabkan enapan bahan X pada dinding arteri?

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

- ☐ A Susu segar  
*Fresh milk*
- C Minyak ikan  
*Fish oil*
- B Mentega kacang  
*Peanut butter*
- 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><i>Unsaturated fat</i>                                                                 | Lemak tepu<br><i>Saturated fat</i>                                                                                    |
|---|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| A | Berasal daripada haiwan<br><i>Originates from animals</i>                                                | Berasal daripada tumbuhan<br><i>Originates from plants</i>                                                            |
| B | Cecair pada suhu bilik<br><i>Liquid at room temperature</i>                                              | Pepejal pada suhu bilik<br><i>Solid at room temperature</i>                                                           |
| C | Takat lebur tinggi<br><i>High melting point</i>                                                          | Takat lebur rendah<br><i>Low melting point</i>                                                                        |
| D | Bilangan atom hidrogen maksimum dalam molekul<br><i>Maximum number of hydrogen atoms in the molecule</i> | Bilangan atom hidrogen dalam molekul belum maksimum<br><i>Number of hydrogen atoms in the molecule is not maximum</i> |

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

*Below is the list of steps in palm oil extraction.*

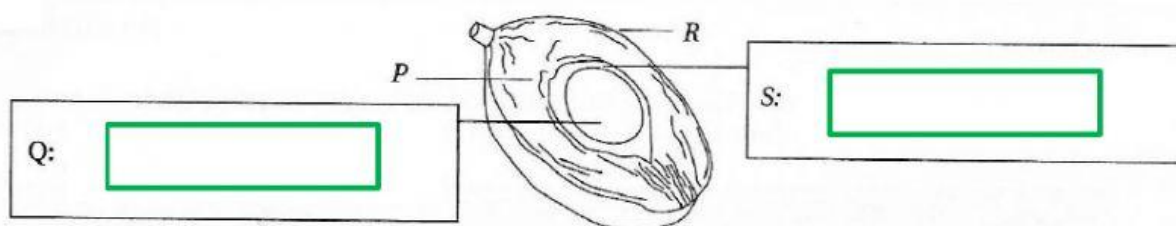
|   |                                                                                                                                     |
|---|-------------------------------------------------------------------------------------------------------------------------------------|
| J | Pulpa diperah dan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

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]

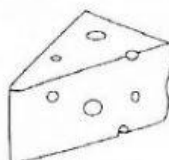
- (b) Bahagian manakah pada buah kelapa sawit yang menghasilkan paling banyak minyak?  
Which part of the oil palm fruit produces the most oil?

[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]