1. The diagram below shows a child suffering from rickets.
Rajah di bawah menunjukkan seorang kanak-kanak menderita penyakit riket.

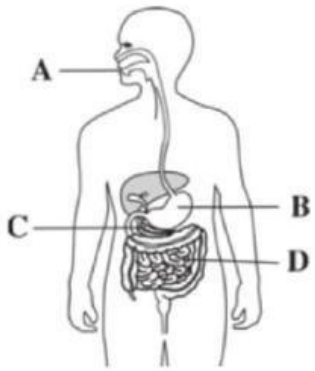
Which of the following is the cause of the disease?
Antara yang berikut, yang manakah menyebabkan penyakit itu?

- A Lack of vitamin D in the diet
  Kekurangan vitamin D dalam makanan
- B Too much protein in the diet
  Berlebihan protein dalam makanan
- C Lack of iron in the diet
  Kekurangan besi dalam makanan
- D Eating too much roughage
  Makan terlalu banyak serat

2. Which of the following shows a part of the correct sequence of the defecation process?
Antara yang berikut, yang manakah menunjukkan sebahagian urutan proses penyahtinjaan yang betul?

- A Small intestine → large intestine → rectum → anus
  Usus kecil → usus besar → rektum → dubur
- B Large intestine → small intestine → anus → rectum
  Usus besar → usus kecil → dubur → rektum
- C Anus → rectum → large intestine → small intestine
  Dubur → rektum → usus besar → usus kecil
- D Rectum → large intestine → small intestine → anus
  Rektum → usus besar → usus kecil → dubur

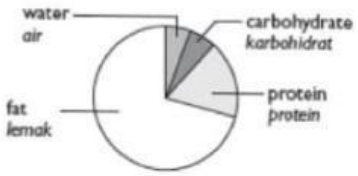
3. The diagram below shows the human digestive system.
Rajah di bawah menunjukkan sistem pencernaan manusia.



Which of the parts labelled **A**, **B**, **C** and **D** in the diagram above, is where proteins start to be digested?
Antara bahagian yang berlabel **A**, **B**, **C** dan **D** *dalam rajah di atas, di manakah protein mula dicernakan?*

- A
- B
- C
- D

4. The pie chart below shows the amounts of the different classes of food contained in [illegible] sample.
Carta pai di bawah menunjukkan jumlah kelas-kelas makanan yang berbeza yang terka[illegible] dalam satu sampel makanan.



The food is most likely to be...
Makanan itu kemungkinan besar ialah...

- A meat.
  daging.
- B bread.
  roti.
- C butter.
  mentega.
- D potatoes.
  kentang.

5. The given information shows the characteristics of food X.
Maklumat yang diberikan menunjukkan ciri-ciri makanan X.

- Nutrient that contains carbon, hydrogen and oxygen
  Nutrien yang mengandungi karbon, hidrogen dan oksigen
- It is formed from simple sugar
  Ia dibentuk daripada gula ringkas
- Can be categorized into 3 main groups
  Boleh dikategorikan kepada 3 kumpulan utama

What is food X?
Apakah makanan X?

- A Bread
  Roti
- B Fish
  Ikan
- C Butter
  Mentega
- D Mustard green
  Sawi hijau

6. Where do reabsorption of water and formation of faeces take place?
Di manakah penyerapan semula air dan pembentukan najis berlaku?

- A Anus
  Dubur
- B Small intestine
  Usus kecil
- C Large intestine
  Usus besar
- D Rectum
  Rektum

7. The table below shows the results of tests conducted on food Q.
Jadual di bawah menunjukkan keputusan ujian yang dijalankan ke atas makanan Q.

Food test *Ujian makanan*	Result *Keputusan*
Benedict's test *Ujian Benedict*	Brick red precipitate *Mendakan merah bata*
Alcohol-emulsion test *Ujian alkohol-emulsi*	Cloudy white emulsion formed *Emulsi putih keruh terbentuk*
Millon's test *Ujian Millon*	Brick-red precipitate *Mendakan merah bata*
Iodine *Iodin*	Yellowish brown *Perang kekuningan*

What is **not** contained in food Q?
Apakah yang **tidak** *terkandung dalam makanan Q?*

- **A** Starch
  Kanji
- **B** Reducing sugar
  Gula penurun
- **C** Protein
  Protein
- **D** Fats
  Lemak

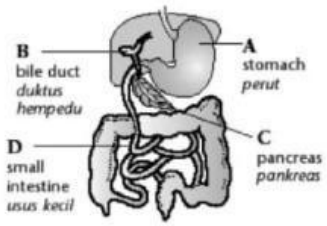
8. Which of the following foods helps to prevent constipation?
Antara makanan berikut, yang manakah dapat mencegah sembelit?

- **A** Milk
  Susu
- **B** Papaya
  Betik
- **C** Soy bean
  Kacang soya
- **D** Prawn
  Udang

9. What substances are reabsorbed by the large intestine?
Apakah bahan yang diserap semula oleh usus besar?

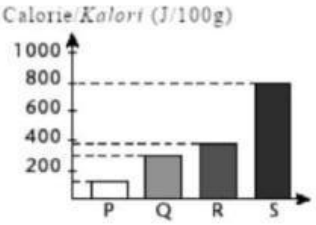
- **A** Water and proteins
  Air dan protein
- **B** Water and vitamins
  Air dan vitamin
- **C** Water and minerals
  Air dan mineral
- **D** Water and carbohydrates
  Air dan karbohidrat

10. A student labels a diagram of the human digestive system. Which of the part labelled **A**, **B**, **C** or **D** is **not** correct?
Seorang pelajar melabelkan rajah sistem pencernaan manusia. Antara bahagian yang dilabel **A**, **B**, **C**, *atau* **D**, *manakah yang* **tidak** *betul?*



- ○ **A**
- ○ **B**
- ○ **C**
- ○ **D**

11. The diagram below shows a graph of the calorific values of four kinds of food.
Rajah di bawah menunjukkan graf nilai-nilai kalori bagi empat jenis makanan.



What are P, Q, R and S?
Apakah P, Q, R, dan S?

○ **A**

P	Q	R	S
Bread *Roti*	Mango *Mangga*	Sugar *Gula*	Margarine *Marjerin*

○ **B**

P	Q	R	S
Margarine *Marjerin*	Bread *Roti*	Sugar *Gula*	Mango *Mangga*

○ **C**

P	Q	R	S
Mango *Mangga*	Bread *Roti*	Sugar *Gula*	Margarine *Marjerin*

○ **D**

P	Q	R	S
Sugar *Gula*	Mango *Mangga*	Margarine *Marjerin*	Bread *Roti*

12. Ann adds 2 mℓ of solution S into 5 mℓ of DCPIP solution.
The DCPIP solution becomes colourless.
Ann menambah 2 mℓ *larutan* S *ke dalam* 5 mℓ *larutan* DCPIP.
Larutan DCPIP *itu menjadi tidak berwarna.*

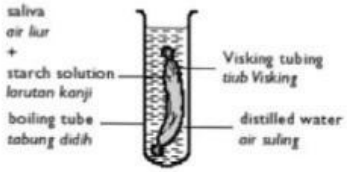
The solution S is most probably...
Larutan S *itu kemungkinan besar ialah...*

- ○ **A** cucumber juice.
  jus timun.
- ○ **B** papaya juice.
  jus betik.
- ○ **C** rose syrup.
  sirap ros.
- ○ **D** pineapple juice.
  jus nanas.

13. Which of the following food has the least energy value per 100 grams?
Antara makanan berikut, yang manakah mempunyai nilai tenaga yang paling kurang ba ap 100 gram?

- A Fish
  Ikan
- B Beef
  Daging
- C Butter
  Mentega
- D Vegetables
  Sayur

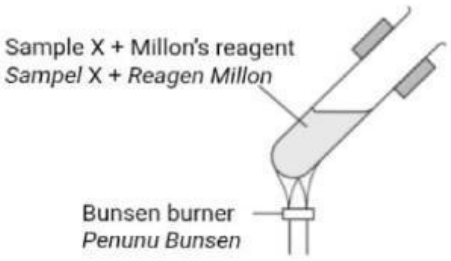
14. The diagram below shows the apparatus used to investigate the absorption of digested food. After 30 minutes, food tests are carried out on the distilled water in the boiling tube.
Rajah di bawah menunjukkan radas yang digunakan untuk menyiasat penyerapan makanan yang telah dihadam. Selepas 30 minit, ujian makanan dijalankan ke atas air suling di dalam tabung didih.



Which of the following food tests shows a positive result?
Antara ujian makanan berikut, yang manakah menunjukkan hasil yang positif?

- A Iodine test
  Ujian iodin
- B Alcohol-emulsion test
  Ujian titisan lemak
- C Benedict's solution test
  Ujian larutan Benedict
- D Millon's reagent test
  Ujian reagen Millon

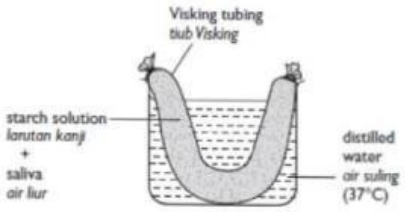
15. A red precipitate is formed when sample X is heated together with two drops of Millon's reagent, as shown in the diagram below.
Suatu mendakan merah terbentuk apabila sampel X dipanaskan bersama dengan dua titik reagen Millon, seperti yang ditunjukkan dalam rajah di bawah.



What is sample X?
Apakah sampel X?

- A Honey
  Madu
- B Egg white
  Putih telur
- C Butter
  Mentega
- D Palm oil
  Minyak kelapa sawit

16. The diagram below shows an experiment which is carried out to study the absorptio gested food.
Rajah di bawah menunjukkan satu eksperimen yang dijalankan untuk mengkaji penyera makanan tercerna.



Which of the following can be detected in the distilled water after 30 minutes?
Antara yang berikut, yang manakah dapat dikesan dalam air suling selepas 30 minit?

- **A** Glucose only
  Glukosa sahaja
- **B** Starch only
  Kanji sahaja
- **C** Starch and glucose
  Kanji dan glukosa
- **D** Starch, glucose and saliva
  Kanji, glukosa dan air liur

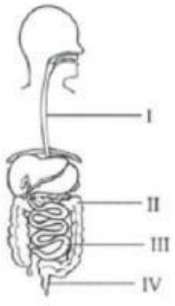
17.

- Can be obtained from vegetables
  Boleh didapati daripada sayur-sayuran
- It is needed in small quantities
  Ia diperlukan dalam kuantiti yang kecil
- Can dissolve in fats
  Boleh melarut dalam lemak

The nutrient mentioned in the given information most probably is...
Nutrien yang dinyatakan dalam maklumat yang diberikan besar kemungkinan adalah...

- **A** protein.
  protein.
- **B** iodine.
  iodin.
- **C** vitamin C.
  vitamin C.
- **D** vitamin A.
  vitamin A.

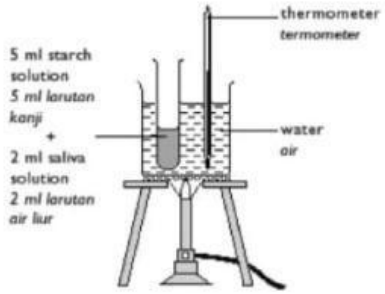
18. The diagram below shows the human digestive system.
Rajah di bawah menunjukkan sistem pencernaan manusia.



Which of the following shows the correct sequence of the human digestive process?
Antara yang berikut, yang manakah menunjukkan urutan proses pencernaan yang betul?

- **A** I → II → III → IV
- **B** I → III → II → IV
- **C** I → III → IV → II
- **D** I → II → IV → III

19. The diagram below shows the apparatus set up used by a student for an experiment.
Rajah di bawah menunjukkan susunan radas yang digunakan oleh seorang pelajar untuk eksperimen.



Which of the following are true about the experiment?
Antara yang berikut, yang manakah betul tentang eksperimen itu?

I The starch will change into a simple sugar.
Kanji akan berubah kepada gula ringkas.

II The enzyme involved in the reaction is called maltase.
Enzim yang terlibat dalam tindak balas ini dikenal sebagai maltase.

III The suitable temperature for the reaction to takes place is about 37 °C.
Suhu yang sesuai untuk tindak balas itu berlaku ialah 37 °C.

- **A** I and II
  I *dan* II
- **B** I and III
  I *dan* III
- **C** II and III
  II *dan* III
- **D** I, II and III
  I, II, *dan* III

20. In the table below, X and Y show the solutions that are required for food tests.
Dalam jadual di bawah, X dan Y menunjukkan larutan yang diperlukan dalam ujian makanan.

Food *Makanan*	Food test *Ujian makanan*
Milk *Susu*	X
Corn powder *Tepung jagung*	Y

Which of the following are most probably to be X and Y?
Antara yang berikut, yang manakah merupakan X dan Y?

- **A**

X	Y
Millon's reagent *Reagen Millon*	Benedict's solution *Larutan Benedict*

- **B**

X	Y
Ethanol and water *Etanol dan air*	Millon's reagent *Reagen Millon*

- **C**

X	Y
Millon's reagent *Reagen Millon*	Iodine solution *Larutan iodin*

- **D**

X	Y
Benedict's solution *Larutan Benedict*	Millon's reagent *Reagen Millon*