

Wednesday 22 May 2019 – Morning

LEVEL 3 CAMBRIDGE TECHNICAL IN HEALTH AND SOCIAL CARE

05831/05832/05833/05871 Unit 4: Anatomy and physiology for health and social care

Time allowed: 2 hours
C442/1906



You may use:

- no materials required

Please write clearly in black ink.

Centre number

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Candidate number

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First name(s)

Last name

Date of Birth

D	D	M	M	Y	Y	Y	Y
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INSTRUCTIONS

- Use black ink.
- Answer **all** the questions.
- Write your answer to each question in the space provided.
- If additional answer space is required, you should use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.

INFORMATION

- The total mark for this paper is **100**.
- The marks for each question are shown in brackets [].
- Quality of extended response will be assessed in questions marked with an asterisk (*).
- This document consists of **20** pages.

FOR EXAMINER USE ONLY	
Question No	Mark
1	/24
2	/16
3	/24
4	/13
5	/23
Total	/100

Answer **all** the questions.

1 **Fig. 1.1** shows part of the digestive system.

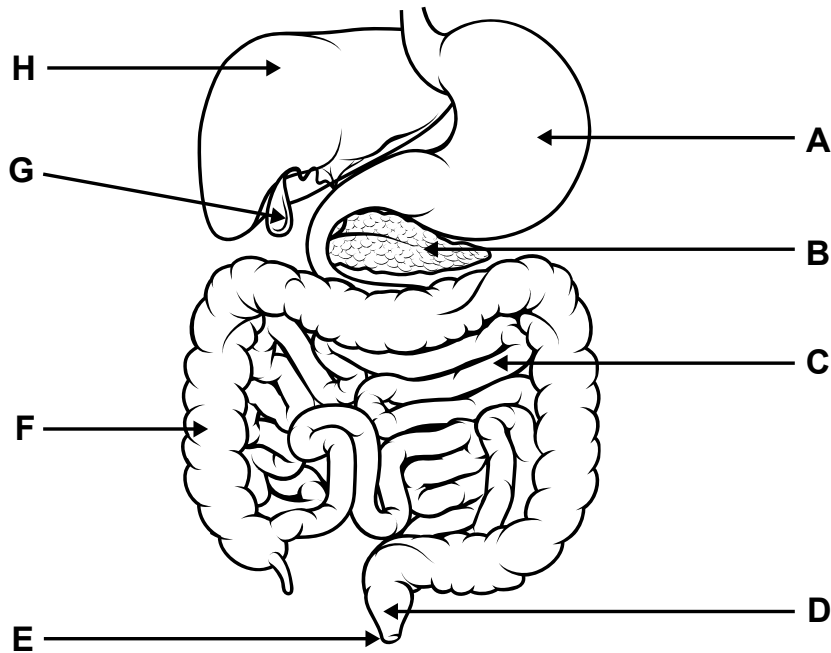


Fig. 1.1

(a) Complete the table by matching the correct letter to each structure.

Use **Fig. 1.1** to help you answer the question.

Structure	Letter
anus
pancreas
stomach
large intestine
gall bladder	G

[4]

(d) The liver is also part of the digestive system.

Complete the sentences about the functions of the liver.

Use words from the list.

Each word can be used once, more than once, or not at all.

assimilation platelets detoxification absorption deamination
erythrocytes glycogen starch protein

After food has been digested, the liver plays an important role in removing glucose from the blood, and converting it into , which can be stored inside cells. This is an example of

The liver has many other functions, including the breakdown and recycling of worn out , and the removal of the amino group from amino acids, which is known as.....

Poisonous substances such as alcohol are also broken down in the liver by the process of

[5]

- 2 Structures within the respiratory system allow the body to take oxygen in, and remove carbon dioxide.

(a) Complete the table by matching the correct structure to each description.

bronchus **intercostal** **diaphragm** **pleural**
trachea **bronchiole**

Description	Structure
The airway that extends from the mouth to the lungs, also known as the windpipe.
A membrane that covers each lung and provides a lining for the rib cage.
A muscle that separates the chest cavity (thorax) from the digestive system.

[3]

(b) Fig. 2.1 shows an alveolus and a capillary.

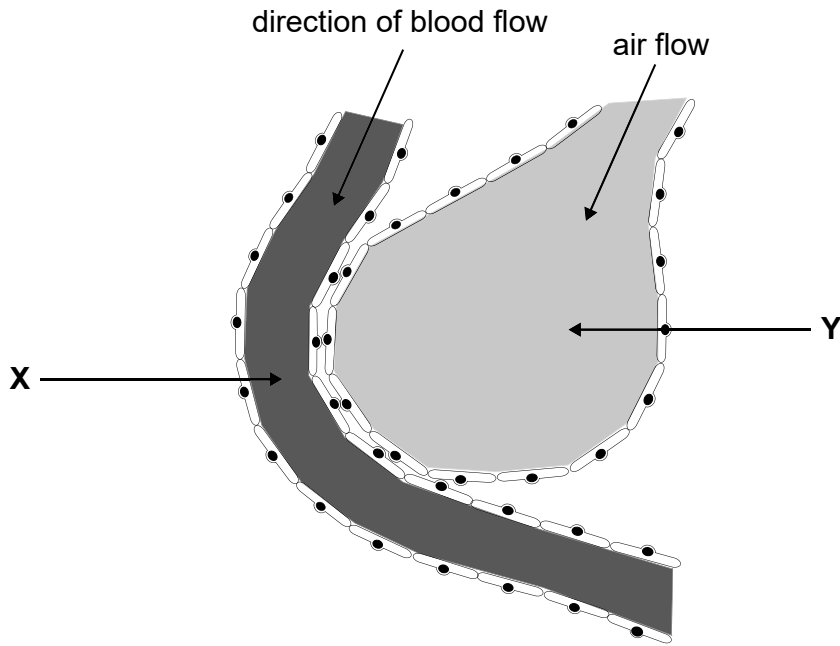


Fig. 2.1

(i) State **one** way in which the structure of the alveolus is adapted for its role in gaseous exchange.

.....
.....[1]

(ii) Describe how gases are exchanged between **X** and **Y**, as blood flows in the capillary. Use **Fig. 2.1** to help you answer the question.

.....
.....
.....
.....
.....
.....
.....[3]

(c) Ben has emphysema.

(i) Which statement about emphysema is correct?

Tick (✓) **one** box.

High blood pressure is a risk factor for emphysema.

Animal fur can trigger emphysema.

Emphysema damages alveoli.

Smoking cigarettes is not linked to emphysema.

[1]

(c) Stefan is told that a likely risk factor for his stroke was his high blood pressure.

Name **one** other risk factor for strokes.

.....
.....[1]

(d) Stefan’s mother, Stella, has developed **cataracts**.

(i) Name the part of the eye affected by cataracts.

.....[1]

(ii) Describe the physiological cause of cataracts.

.....
.....
.....
.....[2]

(c) Trevor has coronary heart disease (CHD) and is recovering from a heart attack.

(i) Identify **two** possible causes of CHD.

1.....

.....

2.....

.....

[2]

(ii) Identify **one** method for monitoring Trevor's heart, following his heart attack.

Explain your answer.

Method

.....

Explanation

.....

.....

[2]

5 Fig. 5.1 shows the elbow joint.

(a)

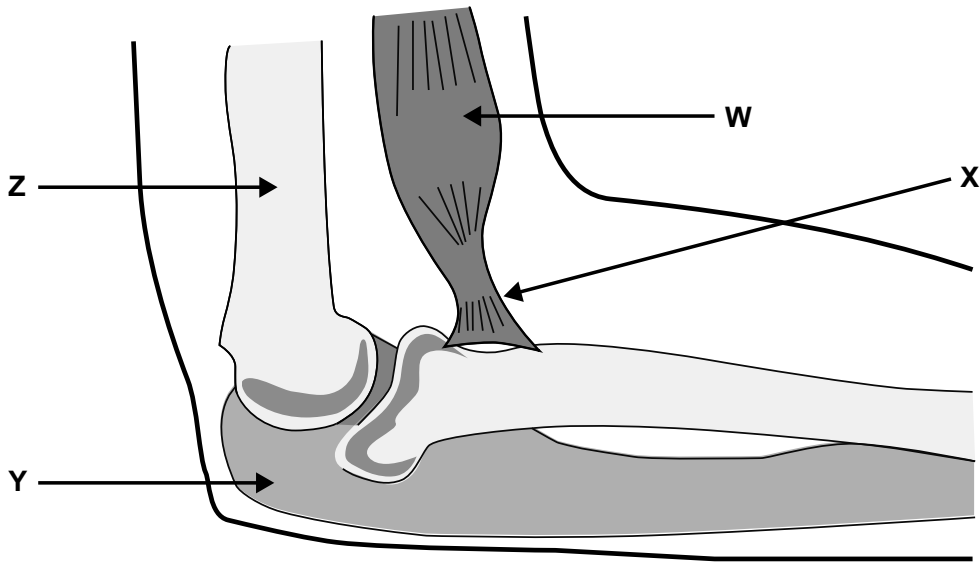


Fig. 5.1

(i) Which term correctly describes the joint shown in Fig. 5.1?

Tick (✓) **one** box.

- Ball and socket
- Pivot
- Hinge
- Sliding

[1]

(ii) Identify the parts labelled W, X, Y and Z in Fig. 5.1.

Use words from the list.

Each word can be used once, more than once, or not at all.

ligament bone cartilage tendon muscle

W =

X =

Y =

Z =

[4]

(d) Dorothy also suffers from hearing loss.

Suggest **two** reasons why osteoporosis may also cause hearing loss.

1.....
.....
2.....
.....

[2]

(e) Identify **two** possible treatments for hearing loss.

1.....
.....
2.....
.....

[2]

(f) The semi-circular canals in the ear are **not** involved in hearing.

State the function of the semi-circular canals and explain how they carry out this function.

Function:
.....

Explanation:
.....
.....
.....
.....

[3]

END OF QUESTION PAPER

ADDITIONAL ANSWER SPACE

If additional answer space is required, you should use the following lined page(s). The question number(s) must be clearly shown – for example 1(a) or 2(a).

A large rectangular area containing horizontal dotted lines for writing answers. The lines are evenly spaced and extend across the width of the page, starting from the top margin and ending near the bottom margin. A solid vertical line is on the left side of this area.

A series of horizontal dotted lines for writing, spanning the width of the page.

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