

**CAMBRIDGE TECHNICALS LEVEL 2 (2016)**

**Examiners' report**

# **SPORT AND PHYSICAL ACTIVITY**

**05889, 05885, 05886**

**Unit 1 January 2023 series**

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## Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from OCR.

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## Unit 1 series overview

This was the ninth series of assessment for this unit. The unit contains a large breadth of knowledge and, as is to be expected, candidates performed better on some Learning Objectives (LOs) than others with performance on LO4 giving the highest overall outcome, while performance on LO2 was again the least successful.

Candidates who did well on this paper generally did the following:	Candidates who did less well on this paper generally did the following:
<ul style="list-style-type: none"> <li>performed well across each of the four Learning Objectives.</li> </ul>	<ul style="list-style-type: none"> <li>had gaps in their knowledge in relation to individual Learning Objectives or across the unit specification content.</li> </ul>

### General comments on the paper

The majority of candidates achieved marks between 15 and 32 out of the 40 marks available. The lowest mark point was 13 and the highest mark point was 35.

### Learning outcome 1: questions 1 - 16

This LO covers core anatomy and the physiology of the musculo-skeleton. The candidates performed well on Questions 4, 5, 7, 14 and 15 – particularly Question 4 (which required knowledge about the functions of a skeleton). The question candidates found most difficult within this section was Question 2 (naming a bone in the ankle joint) with only a small minority of candidates getting this question correct.

#### Assessment for learning



Students should be encouraged to practice the skill of naming specific parts of a diagram, as this style of question often features in the exam.

### Learning outcome 2: questions 17 - 28

This LO covers the cardio-vascular and respiratory systems. This LO contains content of a technical nature and terminology where component names and functions can be easily confused, and performance within this section suggests that candidates continue to struggle, as this was once again the lowest scoring LO on the exam.

Questions 19, 21 and 22 were the best answered in this LO. Question 28 (function of cardiac system) had the joint lowest outcome on the exam. Candidates also found the rest of the questions in this LO quite demanding.

## Assessment for learning



This LO continues to see some of the lowest correct response rates on this exam. It is important that candidates are familiar with this part of the specification.

### Learning outcome 3: questions 29 - 34

This LO relates to health measurements such as BMI, blood pressure and body fat and the candidates need to know normative data and standard values and classifications for some of these elements of the section in order to answer the questions.

This was the second most successfully answered section within the examination. Questions 29 and 30 (interpretation of BMI classification table) performed best within this section of the exam with the majority of candidates selecting the correct response on each of these two questions. Performance was least successful on Question 33 (which required knowledge and comparison of correct blood pressure levels).

### Learning outcome 4: questions 35 - 40

LO4 is about the trends in participation within sport and physical activity. The candidates do not need to know or to be able to recall statistics themselves (in contrast to LO3) as this data can vary significantly over time and as between sources. The relevant information is provided within the test and the candidates have to be able to correctly respond to the stimulus data which is provided.

This was the most successfully answered section in the examination.

Questions 35, 37 and 38 were answered correctly by the majority of candidates.

Question 40 was the least well performing question within this section and it related to Government departments who provide information on sport and activity.

## Appendix 1 Questions

### Question 1

**Fig. 1**

Item removed due to third party copyright restrictions

**Fig. 1** shows an image of an ankle joint.

On **Fig. 1**, name the bone labelled **X**.

A Clavicle

B Fibula

C Tibia

D Ulna

[1]

## Question 2

**Fig. 1**

Item removed due to third party copyright restrictions

**Fig. 1** shows an image of an ankle joint.

On **Fig. 1**, name the bone labelled **Y**.

- A
- B
- C
- D

**[1]**



### Question 3

Fig. 1

Item removed due to third party copyright restrictions

Fig. 1 shows an image of an ankle joint.

On Fig. 1, name the type of joint labelled Z.

- A
- B
- C
- D

[1]

### Question 4

Which **one** of the following is **not** a function of the skeleton?

- A
- B
- C
- D

[1]

## Question 5

What do tendons attach muscle to?

A Bone

B Cartilage

C Ligaments

D Muscle

[1]

## Question 6

Which **one** of the following is a saddle joint?

A Elbow

B Neck

C Thumb

D Wrist

[1]

## Question 7

Which **one** of the following best describes a joint in the body?

A A place where glycogen is stored

B A place where minerals are stored

C A place where two or more bones meet

D A place where two or more muscles meet

[1]

## Question 8

Which **one** of the following is found on the end of bones, to help stop bones rubbing against each other?

A Cartilage

B Joint capsule

C Ligaments

D Synovial fluid

[1]

## Question 9

Which **one** of the following does the disease osteoporosis effect?

A Arteries

B Bones

C Heart

D Lungs

[1]

## Question 10

Which **one** of the following movements occurs when a gymnast moves their legs sideways away from the centre of their body?

A Abduction

B Adduction

C Extension

D Flexion

[1]

## Question 11

What is stored in muscles that provides energy?

A Alveoli

B Carbon dioxide

C Glycogen

D VO2 max

[1]

## Question 12

Fig. 2

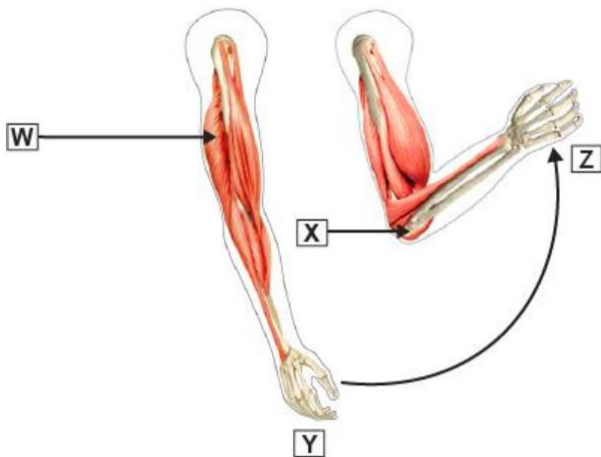


Fig. 2 shows movement at the elbow.

On Fig. 2, what is the movement that takes place from Y to Z?

A Abduction

B Adduction

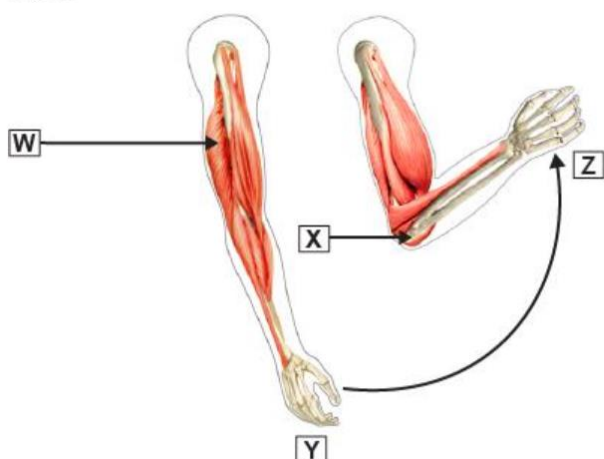
C Extension

D Flexion

[1]

## Question 13

**Fig. 2**



**Fig. 2** shows movement at the elbow.

On **Fig. 2**, name the muscle labelled **W**.

A Biceps

B Soleus

C Trapezius

D Triceps

[1]

## Question 14

Fig. 2

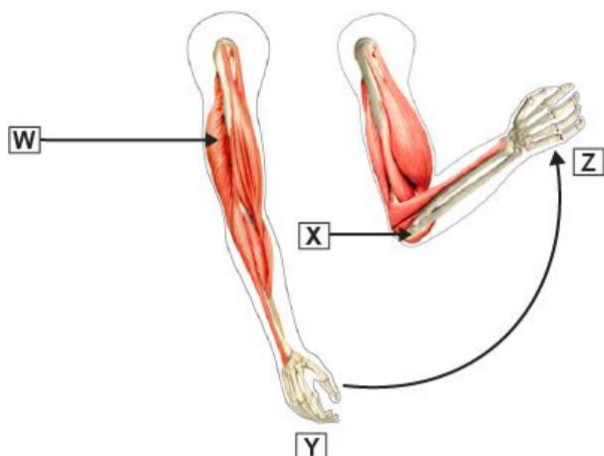


Fig. 2 shows movement at the elbow.

On Fig. 2, name the type of joint labelled X.

A Ball and socket

B Gliding

C Hinge

D Saddle

[1]

### Question 15

Fig. 2

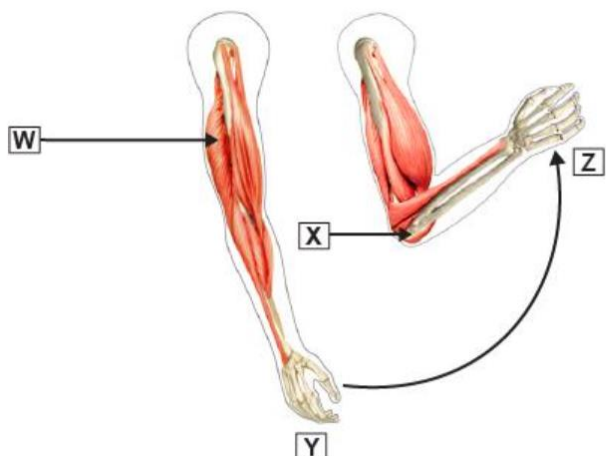


Fig. 2 shows movement at the elbow.

On Fig. 2, select another location in the body that has the same type of joint as the one labelled X.

- A Hip
- B Knee
- C Vertebrae
- D Wrist

[1]

### Question 16

Which **one** of the following will an improved metabolic rate mainly effect?

- A Alleviate asthma symptoms
- B Helps with weight control
- C Improved cardiac output
- D Increased flexibility

[1]



## Question 17

Which **one** of the following describes the function of the aorta?

A Transport deoxygenated blood to the vena cava

B Transport deoxygenated blood to the working muscles

C Transport oxygenated blood to the vena cava

D Transport oxygenated blood to the working muscles

[1]

## Question 18

Which **one** of the following is a type of blood vessel?

A Red cells

B Plasma

C Platelets

D Veins

[1]

## Question 19

Which **one** of the following is a respiratory muscle?

A Diaphragm

B Deltoid

C Pharynx

D Trachea

[1]

## Question 20

Which **one** of the following describes the part of the body that vascular disease affects?

A Blood

B Blood vessels

C Heart

D Plasma

[1]

## Question 21

Which **one** of the following statements is true about the long-term cardiorespiratory effects of sport?

A Cardiac output decreases

B Fewer capillaries in muscles

C Lower respiratory volumes

D Lower resting heart rate

[1]

## Question 22

Which **one** of the following is **not** located within the lungs?

A Alveoli

B Bronchi

C Bronchioles

D Diaphragm

[1]

## Question 23

Which **one** of the following is a cardiorespiratory health benefit of physical activity?

A Body fat percentage decreases

B Bone density increases

C Less chance of cardio pulmonary disease (CPD)

D Prevention of osteoarthritis

[1]

## Question 24

Fig. 3

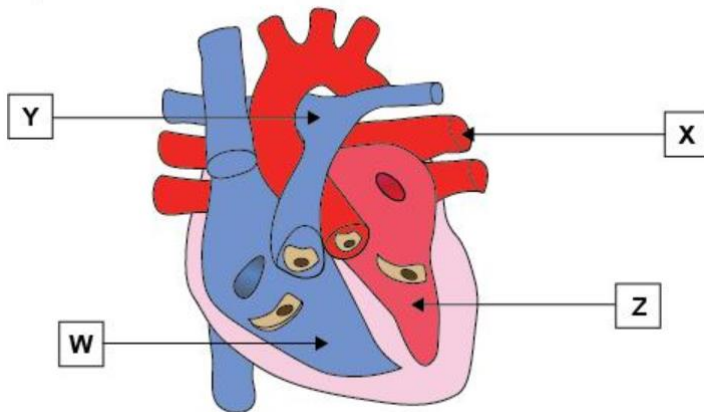


Fig. 3 shows an image of the heart.

On Fig. 3, what is the function of W?

- A Prevents backflow of blood from the pulmonary artery
- B Pumps oxygenated blood to the lungs
- C Receives deoxygenated blood from the right atrium
- D Transports oxygenated blood to the left ventricle

[1]

### Question 25

Fig. 3

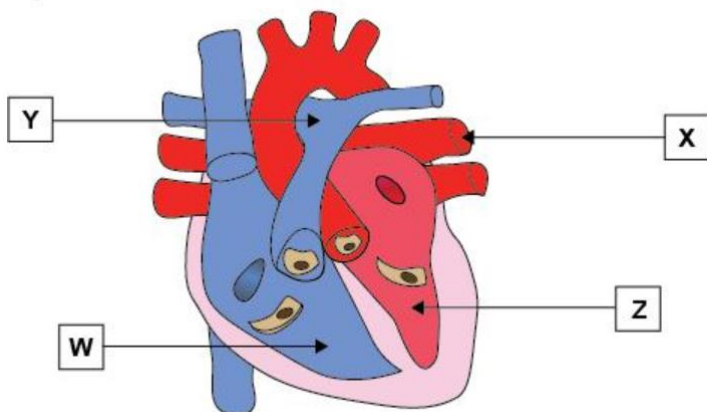


Fig. 3 shows an image of the heart.

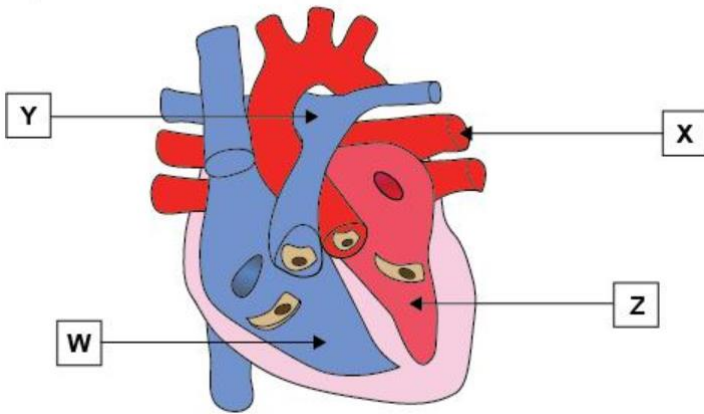
On Fig. 3, name the blood vessel labelled X.

- A
- B
- C
- D

[1]

### Question 26

**Fig. 3**



**Fig. 3** shows an image of the heart.

On **Fig. 3**, name the type of blood vessel labelled **Y**.

- A
- B
- C
- D

[1]

### Question 27

Fig. 3

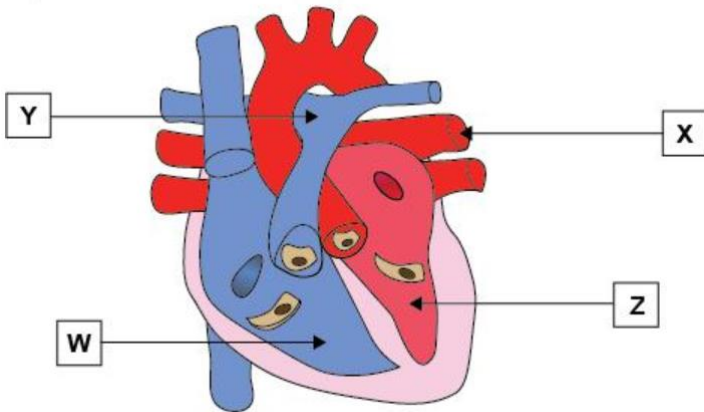


Fig. 3 shows an image of the heart.

On Fig. 3, which **one** of the following is the correct direction of blood flowing through the cardiac system that starts at Z?

- A
- B
- C
- D

[1]



## Question 28

Which **one** of the following is a function of the cardiac system?

A Expel carbon dioxide

B Fight infection and disease

C Gaseous exchange

D Intake of oxygen

[1]

## Question 29

**Table 1**

Underweight	Healthy weight	Overweight	Obese
Below 18.5	18.5–24.9	25–29.9	30–34.9

**Table 1** shows BMI classifications.

Sarah has a BMI of 22.9. Using **Table 1**, what classification is this measurement?

A Healthy weight

B Obese

C Overweight

D Underweight

[1]

## Question 30

**Table 1**

Underweight	Healthy weight	Overweight	Obese
Below 18.5	18.5–24.9	25–29.9	30–34.9

**Table 1** shows BMI classifications.

Leo has a BMI of 27.5. Using **Table 1**, what classification is this measurement?

A Healthy weight

B Obese

C Overweight

D Underweight

[1]

## Question 31

What BMI measurement range is used for someone who is very obese?

A 35–35.9

B 35–37.9

C 35–38.9

D 35–39.9

[1]

## Question 32

What BMI classification would be used for someone who measured 42?

A Extremely obese

B Extremely underweight

C Morbidly obese

D Morbidly underweight

[1]

## Question 33

Which **one** of the following is **false**?

A High blood pressure is 140/90 or more

B Ideal blood pressure is 90/60–140/90

C Low blood pressure is 90/60 or less

D Normal blood pressure is 120/80–140/90

[1]

## Question 34

What is measured by a peak flow test?

A Blood pressure

B Lung capacity

C Metabolic rate

D Resting heart rate

**[1]**

### Question 35

Fig. 4

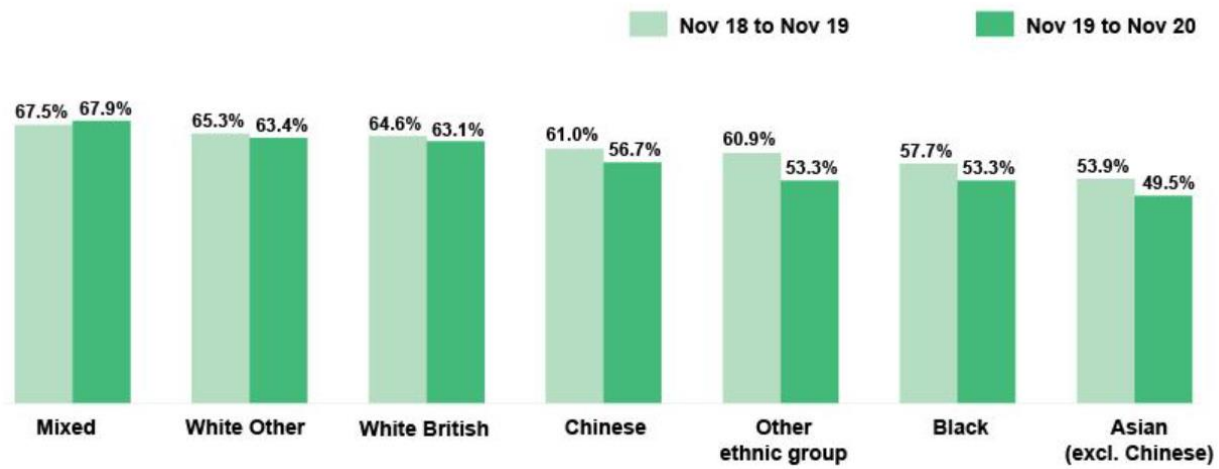


Fig. 4 shows a bar chart of the percentage of people from different ethnic groups that are active for at least 150 minutes a week.

Using Fig. 4, which ethnic group were **least** active from Nov 2019 to Nov 2020?

- A
- B
- C
- D

[1]

### Question 36

Fig. 4

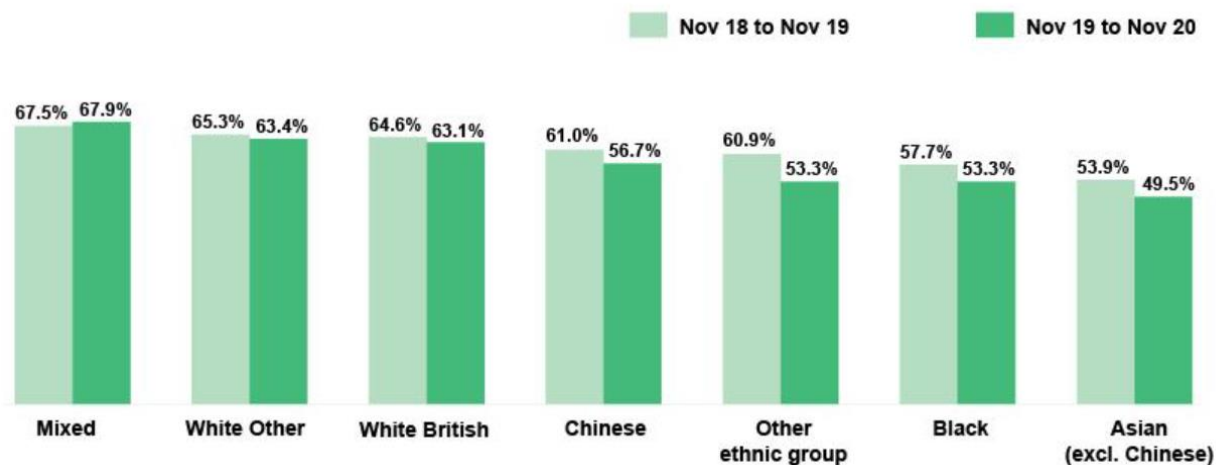


Fig. 4 shows a bar chart of the percentage of people from different ethnic groups that are active for at least 150 minutes a week.

Using Fig. 4, which ethnic group had the biggest **decrease** in levels of activity between Nov 2018 and Nov 2020?

- A
- B
- C
- D

[1]

### Question 37

Fig. 4

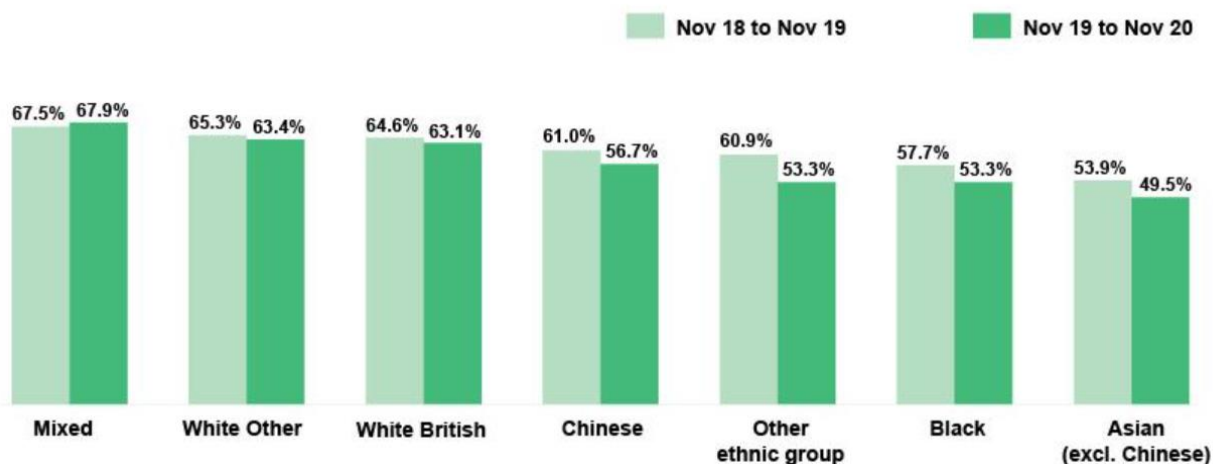


Fig. 4 shows a bar chart of the percentage of people from different ethnic groups that are active for at least 150 minutes a week.

Using Fig. 4, which ethnic group had an **increase** in levels of activity during Nov 2019 to Nov 2020?

- A
- B
- C
- D

[1]

## Question 38

Which **one** of the following is a cultural barrier to participation in sport and physical activity?

A Access

B Family commitments

C Religious beliefs

D Work restrictions

[1]

## Question 39

Which **one** of the following is an example of assistive technology to improve accessibility in a leisure centre?

A Braille

B Hoists

C Marketing

D Signage

[1]



## Question 40

Which **one** of the following is **not** a government department that provides information on participation in sport and physical activity?

A Culture, Media and Sport

B Education

C Health

D Youth Sport Trust

[1]

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