

**CAMBRIDGE TECHNICALS LEVEL 2 (2016)**

**Examiners' report**

# **SPORT AND PHYSICAL ACTIVITY**

**05889, 05885, 05886**

**Unit 1 Summer 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 tenth 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 outcomes (LOs) than others with performance on LO3 giving the highest overall outcome, while performance on LO2 was again the least successful.

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

### General comments on the paper

The majority of the candidates achieved marks between 18 and 26 out of the 40 marks available.

The lowest mark point was 6 and the highest mark point was 36.

### 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, 13 and 15 and overall this was the second best answered section on the exam. With Question 13 (name a muscle in the arm) being answered correctly by the majority of candidates.

#### Assessment for learning



Students should be encouraged to use their knowledge of joint types to independently identify the different types of joints found in the body.

### 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.

Question 20 achieved the lowest outcome on the exam. With only a small minority of candidates being able to correctly identify which part of the body vascular disease affects. Questions 23 (cardiorespiratory health benefit of activity) and 28 (function of cardiac system) were also answered incorrectly by the majority of candidates.

#### Assessment for learning



This LO continues to see some of the lowest correct response rates on the exam. It is important that candidates are familiar with this area 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 most successfully answered section of the exam. Questions 29 and 30 (interpretation of BMI classification table) performed best within this exam, with the majority of candidates answering them correctly. Performance was least successful on Question 34 which required candidates to know what a peak flow test is used to measure.

### 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 be able to recall statistics themselves (in contrast to LO3) as this data can vary significantly over time and between sources. The relevant information is provided within the test and the candidates must be able to correctly respond to the stimulus data which is provided.

Question 37 (identifying increased levels of activity on a graph) was answered correctly by the majority of candidates.

Question 38 was the least well performing question on this section, which required candidates to demonstrate knowledge around cultural barriers to participation in sport.

## Appendix 1 Questions

### Question 1



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

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

- A
- B
- C
- D

**[1]**



### Question 3



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

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

A Condylloid

B Foot

C Gliding

D Hinge

[1]

### Question 4

Which **one** of the following is a function of the skeleton?

A Glycogen storage

B Mineral storage

C Regulate body temperature

D Removal of waste

[1]

## Question 5

What do ligaments attach bone to?

A Bone

B Cartilage

C Ligaments

D Muscle

[1]

## Question 6

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

A Ankle

B Hip

C Thumb

D Vertebrae

[1]

## Question 7

Which **one** of the following best describes the function of synovial fluid?

A Prevents friction

B Produces energy

C Provides movement

D Provides stability

[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 Capillaries

C Muscle

D Tendons

[1]

## Question 9

Which **one** of the following does the disease osteoarthritis affect?

A Cardiac system

B Joints

C Muscles

D Respiratory system

[1]

## Question 10

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

A Abduction

B Adduction

C Extension

D Flexion

[1]

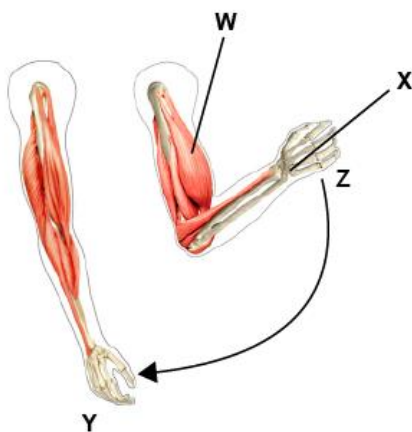
### Question 11

Which **one** of the following is stored in muscles and provides energy?

- A
- B
- C
- D

[1]

### Question 12



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

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

- A
- B
- C
- D

[1]

### Question 13

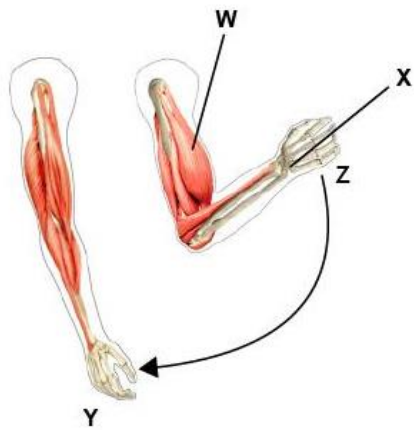


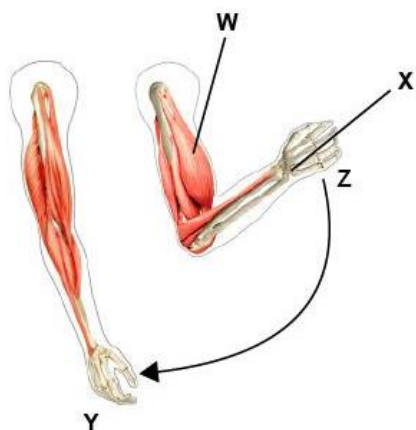
Fig. 2 shows movement at the elbow.

On Fig. 2, name the muscle labelled W.

- A
- B
- C
- D

[1]

## Question 14



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

On **Fig. 2**, name the joint labelled **X**.

- A
- B
- C
- D

[1]

## Question 15

Name another location in the body that has the same type of joint as the elbow.

A Hand

B Knee

C Shoulder

D Wrist

[1]

## Question 16

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

A Helps with weight control

B Hypertrophy of muscle

C Increased bone density

D Prevents osteoporosis

[1]



## Question 17

Which **one** of the following describes the function of the vena cava?

A Transport deoxygenated blood to the right atrium

B Transport deoxygenated blood to the working muscles

C Transport oxygenated blood to the left ventricle

D Transport oxygenated blood to the working muscles

[1]

## Question 18

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

A Atria

B Plasma

C Veins

D White cells

[1]

## Question 19

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

- A
- B
- C
- D

[1]

## Question 20

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

- A
- B
- C
- D

[1]

## Question 21

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

A Cardiac output increases

B Fewer capillaries in muscles

C Higher resting heart rate

D Lower respiratory volumes

[1]

## Question 22

Which **one** of the following is located within the lungs?

A Alveoli

B Epiglottis

C Nasal Cavity

D Trachea

[1]

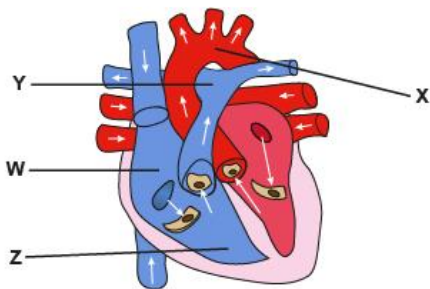
## Question 23

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

- A
- B
- C
- D

[1]

## Question 24



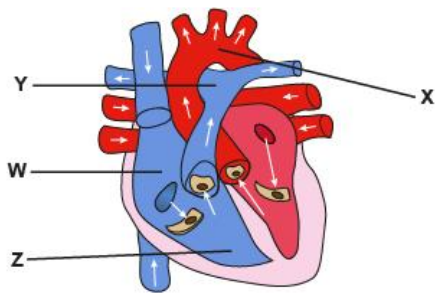
**Fig. 3** shows an image of the heart.

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

- A
- B
- C
- D

[1]

## Question 25



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

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

- A
- B
- C
- D

[1]

## Question 26

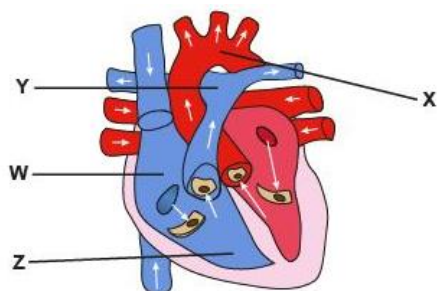


Fig. 3 shows an image of the heart.

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

- A
- B
- C
- D

[1]

## Question 27

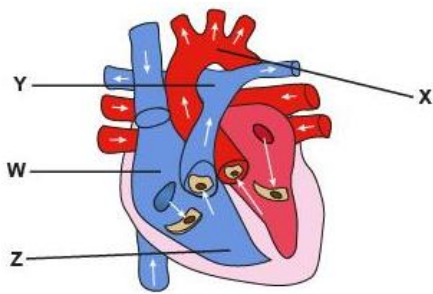


Fig. 3 shows an image of the heart.

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

- A Atrium to ventricle to lungs
- B Atrium to ventricle to working muscles
- C Ventricle to pulmonary artery to lungs
- D Ventricle to pulmonary vein to lungs

[1]

## Question 28

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

- A Fight infection and disease
- B Gaseous exchange
- C Intake of carbon dioxide
- D Produces haemoglobin

[1]

## Question 29

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

**Table 1** shows BMI classifications

Using **Table 1**, Sam has a BMI of 18.2. What classification is this measurement?

- A
- B
- C
- D

[1]

## Question 30

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

**Table 1** shows BMI classifications

Using **Table 1**, Ling has a BMI of 25.5. What classification is this measurement?

- A
- B
- C
- D

[1]



## Question 31

What BMI measurement is used for someone who is morbidly obese?

A Above 40

B Above 45

C Above 50

D Above 55

[1]

## Question 32

What BMI classification would be used for someone who measured between 35–39.9?

A Extremely obese

B Extremely underweight

C Very obese

D Very underweight

[1]

## Question 33

Which **one** of the following is a measurement of low blood pressure?

A 85/55

B 100/70

C 120/80

D 140/90

[1]

## Question 34

Which **one** of the following is measured by a peak flow test?

A Blood pressure

B Lung capacity

C Percentage of body fat

D Vascular disease

[1]

### Question 35

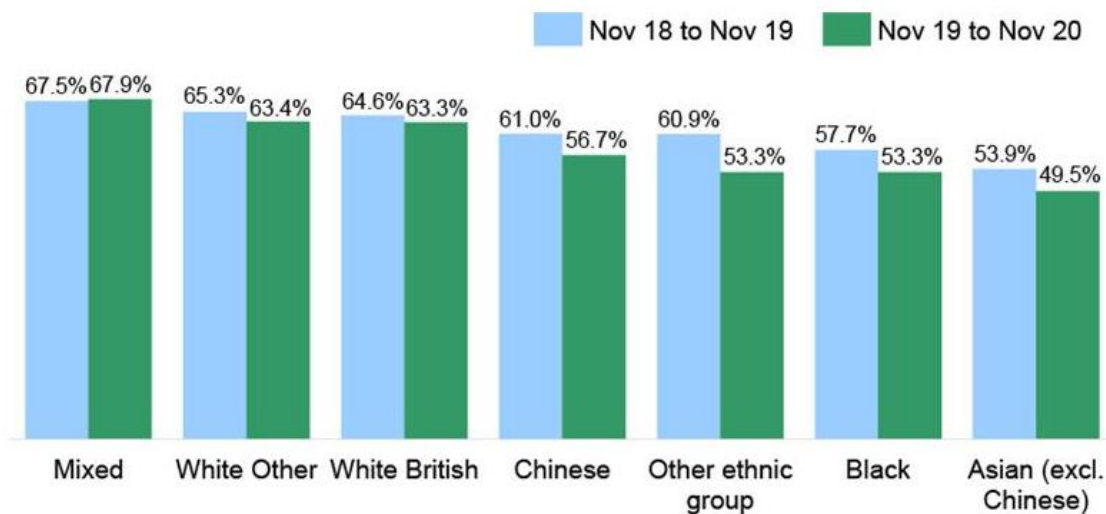


Fig. 4 shows a bar chart of the percentage of people from different ethnic groups that are active for at least 150 minutes a week.

Using Fig. 4, which ethnic groups were **most** active from Nov 19 to Nov 20?

- A
- B
- C
- D

[1]

### Question 36

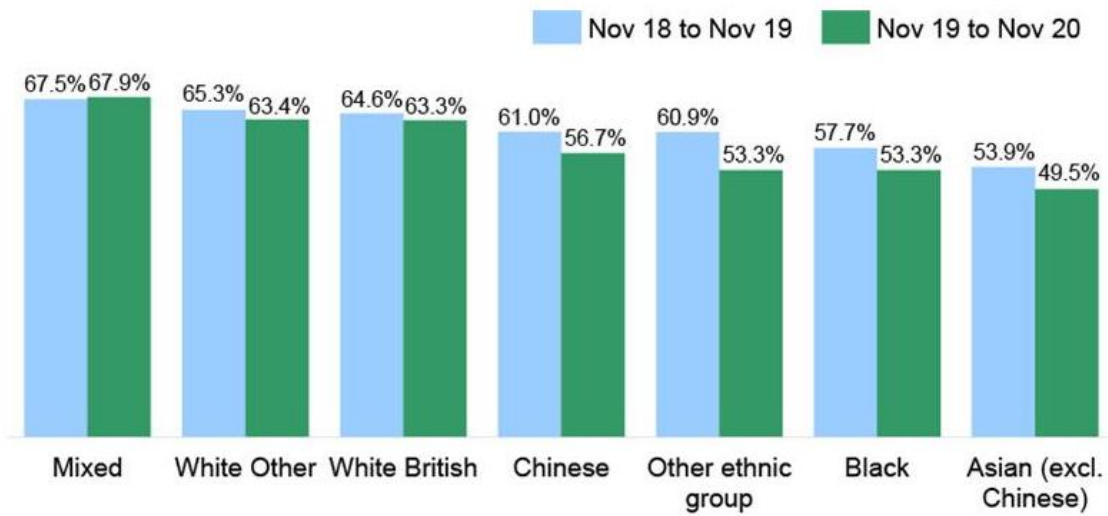


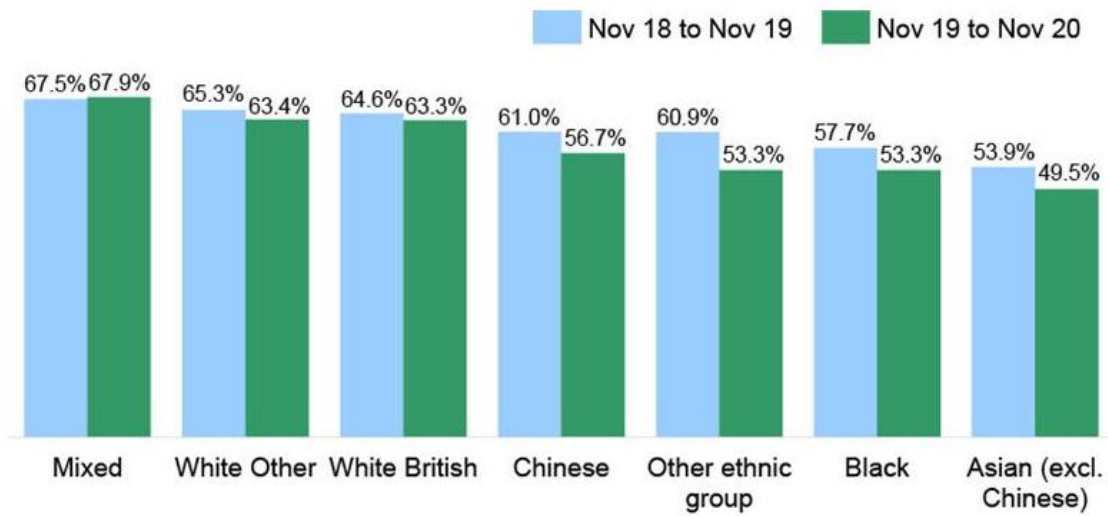
Fig. 4 shows a bar chart of the percentage of people from different ethnic groups that are active for at least 150 minutes a week.

Using Fig. 4, which ethnic group had the **smallest** decrease in levels of activity between Nov 18 and Nov 20?

- A
- B
- C
- D

[1]

### Question 37



**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 from Nov 19 to Nov 20?

- 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 Gender

C Local provision

D Time

[1]

## Question 39

Which **one** of the following is a solution to improve accessibility for a wheelchair user in a leisure centre?

A Assistive technology

B Braille

C Multilingual information

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 Sport England

[1]

## Copyright information

Questions 12, 13 14: Image of elbow - (Modified image) iStock credit: leonello

Questions 35, 36, 37: Activity bar chart - Sport England 'Active Lives Adult Survey', November 2019/20 report, published April 2021, [www.sportengland.org](http://www.sportengland.org)



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