

CAMBRIDGE TECHNICALS LEVEL 2 (2016)

Examiners' report

SPORT AND PHYSICAL ACTIVITY

05889, 05885, 05886

Unit 1 January 2022 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 is attached as an Appendix at the end of this report. The mark scheme can be downloaded from OCR.

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Unit 1 series overview

This was the seventh 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 LO3 was least successful.

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

General comments on the paper

On average candidates achieved just over half of the marks available. The majority of the candidates achieved marks between 17 and 29 out of the 40 marks available.

Learning outcome 1: questions 1 - 16

This LO covers core anatomy and the physiology of the musculo-skeleton. The candidates performed well on Questions 2, 4, 5, 6, 7, 8 and 14 – particularly Question 6 (which required the identification of muscles from an image of the upper body). The question which the candidates found most difficult within this section was Question 10, with a minority of candidates getting this correct. This question related to the identification of elbow joint parts from a diagram of an arm.

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 the candidates may not have been as aware of the requirements of this section as in some previous series.

Most candidates selected the correct response for Question 18 (which related to the functioning of heart valves) while a few selected the correct response for Question 25 (which related to vascular conditions). Candidates found Questions 20, 24 and 26 quite demanding.

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 least successfully answered section within the examination and this suggests that detailed and specific candidate knowledge of the content was not as high as in previous examination series. Performance was least successful on Question 31. This was the least well answered question on the entire paper. This question related to the interpretation of body fat percentage data. Questions 29 and 30 (which also related to the interpretation of body fat data) performed best within this section of the examination with about half of the candidates selecting the correct response on each of these two questions.

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. With this in mind, 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.

The candidates performed better on this section of the question paper than on any of the other three sections. Question 38 was the least well performing question within this section and it related to the cultural barriers to participation in sport and physical activity. By contrast, the majority of candidates successfully answered Question 37 (simply relating to the interpretation graphical data) and Question 40 (relating to the health barriers for participation in sport and physical activity). Overall, the candidates performed quite successfully on this section of the question paper.

Appendix 1 Questions

Question 1

Which **one** of the following is a role of a tendon?

A Attaching bone to bone

B Attaching muscle to bone

C Attaching muscle to cartilage

D Attaching muscle to muscle

[1]

Question 2

The knee joint is an example of a:

A Ball and socket joint

B Gliding joint

C Hinge joint

D Pivot joint

[1]

Question 3

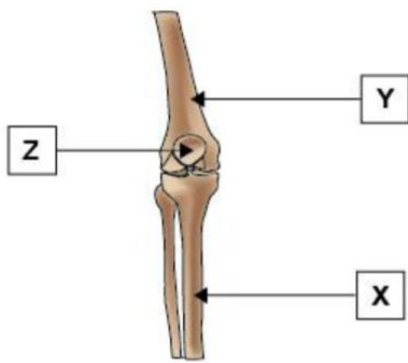


Fig. 1

Fig. 1 shows an image of the knee and parts of the upper and lower leg.

On Fig. 1 the bone labelled X is the:

A Femur

B Fibula

C Patella

D Tibia

[1]

Question 4

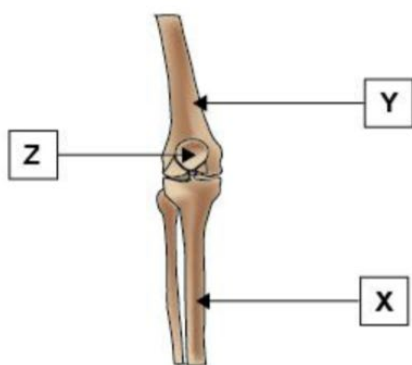


Fig. 1

Fig. 1 shows an image of the knee and parts of the upper and lower leg.

On Fig. 1 the bone labelled Y is the:

A Clavicle

B Femur

C Fibula

D Tarsals

[1]

Question 5

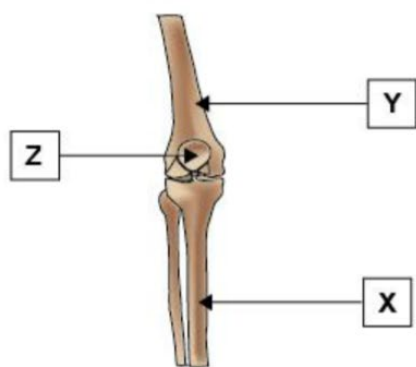


Fig. 1

Fig. 1 shows an image of the knee and parts of the upper and lower leg.

On Fig. 1 the bone labelled Z is the:

- A
- B
- C
- D

[1]

Question 6

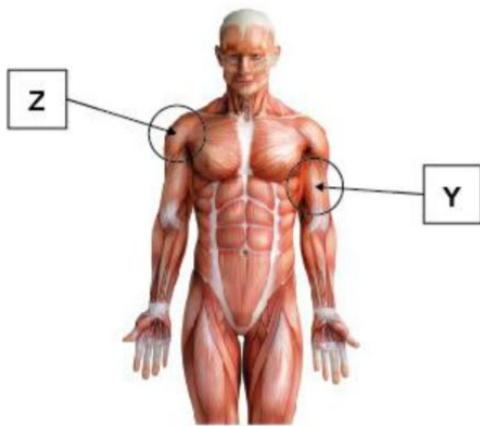


Fig. 2

Fig. 2 shows an image of muscles located in the upper body.

On Fig. 2 the muscles labelled Y are the:

- A
- B
- C
- D

[1]

Question 7

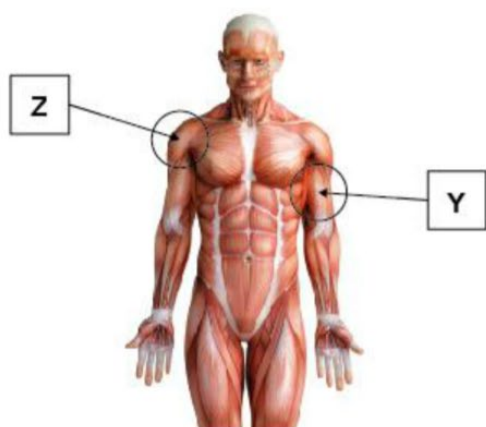
**Fig. 2**

Fig. 2 shows an image of muscles located in the upper body.

On **Fig. 2** the muscles labelled **Z** are the:

A Abdominals

B Deltoids

C Pectorals

D Trapezius

[1]

Question 8

Which **one** of the following is **not** found in the arm?

- A
- B
- C
- D

[1]

Question 9

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

- A
- B
- C
- D

[1]

Question 10

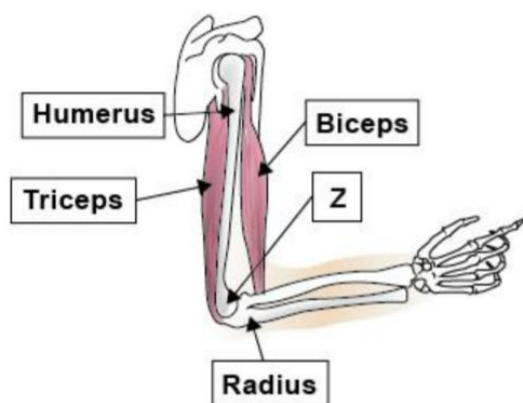


Fig. 3

Fig. 3 shows the structure of an elbow joint.

The part of the elbow joint labelled **Z** on Fig. 3 is:

- A
- B
- C
- D

[1]

Question 11

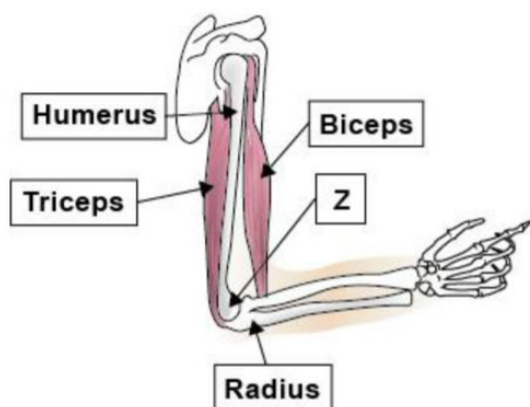


Fig. 3

Fig. 3 shows the structure of an elbow joint.

The part of the elbow joint labelled **incorrectly** on **Fig. 3** is the:

- A
- B
- C
- D

[1]

Question 12

Which **one** of the following is the best description of the shoulder joint and movement it allows?

- A
- B
- C
- D

[1]

Question 13

Which **one** of the following are types of movement allowed at the elbow?

- A
- B
- C
- D

[1]

Question 14

Which **one** of the following is located in the foot?

- A
- B
- C
- D

[1]

Question 15

Which **one** of the following muscles is found in the back?

- A
- B
- C
- D

[1]

Question 16

Which **one** of the following is a positive musculoskeletal effect of sport?

A Decreased bone density

B Increased cardiac output

C Increased joint stability

D Increased VO₂ max

[1]

Question 17

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

A Takes deoxygenated blood to the lungs

B Takes deoxygenated blood to the right atrium

C Takes oxygenated blood to the left atrium

D Takes oxygenated blood to the rest of the body

[1]

Question 18

Which **one** of the following is a function of heart valves?

A Form clots to prevent bleeding

B Prevents backflow of blood

C Regulates body temperature

D Removes waste from muscles

[1]

Question 19

Which of the following is responsible for returning oxygenated blood back to the heart?

A Aorta

B Pulmonary artery

C Pulmonary vein

D Ventricles

[1]

Question 20

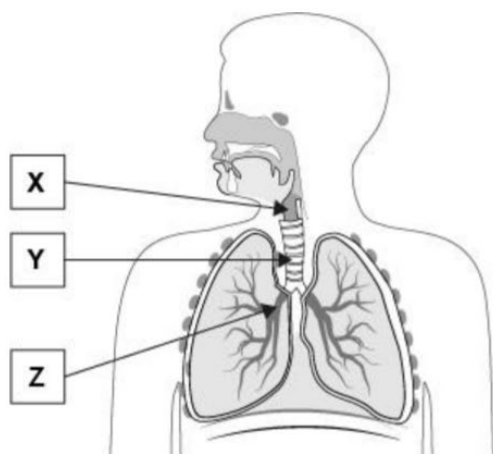


Fig. 4

Fig. 4 shows a picture of part of the respiratory system.

The part of the respiratory system labelled X on Fig. 4 is the:

- A
- B
- C
- D

[1]

Question 21

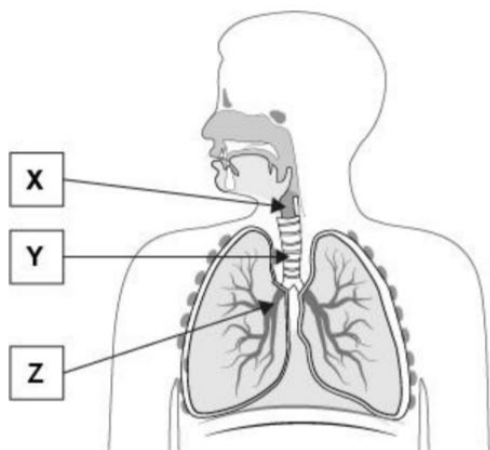


Fig. 4

Fig. 4 shows a picture of part of the respiratory system.

The part of the respiratory system labelled Y on Fig. 4 is the:

A Epiglottis

B Larynx

C Pharynx

D Trachea

[1]

Question 22

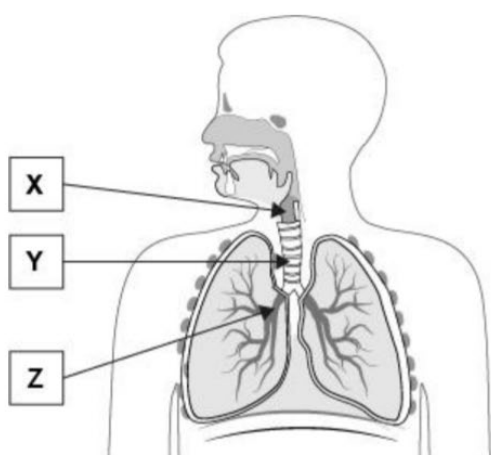


Fig. 4

Fig. 4 shows a picture of part of the respiratory system.

The part of the respiratory system labelled Z on Fig. 4 is the:

- A
- B
- C
- D

[1]

Question 23

Which of the following is a respiratory muscle used during respiration?

- A
- B
- C
- D

[1]

Question 24

Which **one** of the following does **not** assist in the transport of oxygenated blood?

- A
- B
- C
- D

[1]

Question 25

Which **one** of the following is a related vascular condition?

A Atherosclerosis

B Hypertrophy

C Osteoarthritis

D Osteoporosis

[1]

Question 26

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

A A function of the cardiac system is to fight infection

B Platelets reduce the risk of coronary heart disease

C The aorta is an artery

D Ventricles are located at the bottom of the heart

[1]

Question 27

Which **one** of the following is **not** a component of blood?

A Glycogen

B Plasma

C Platelets

D White cells

[1]

Question 28

Which **one** of the following is a positive effect of sports participation?

A It decreases the number of alveoli

B It decreases the number of capillaries in muscles

C It decreases the risk of some cancers

D It decreases VO₂ max

[1]

Question 29

What body fat percentage is classed as obese for women?

- A
- B
- C
- D

[1]

Question 30

	Body fat percentage
Amir	24%
Ben	27%
Jamal	22%
James	18%
Sam	23%

Fig. 5

Fig. 5 shows some body fat percentage results for men.

What would James' body fat percentage be classified as?

- A
- B
- C
- D

[1]

Question 31

	Body fat percentage
Amir	24%
Ben	27%
Jamal	22%
James	18%
Sam	23%

Fig. 5

Fig. 5 shows some body fat percentage results for men.

How many body fat percentage scores would be classed as fit?

- A
- B
- C
- D

[1]

Question 32

Amir has another body fat measurement taken 6 months later and the result has increased to 26%.

What classification would Amir now be in?

- A
- B
- C
- D

[1]

Question 33

Low blood pressure is classed as less than:

- A
- B
- C
- D

[1]

Question 34

How is BMI calculated?

A Height (m) divided by weight (kg) and multiply answer by height (m)

B Weight (Kg) divided by height (m) and divide answer by height (m)

C Weight (Kg) divided by height (m) and multiply answer by height (m)

D Weight (Kg) multiplied by height (m) and divide answer by height (m)

[1]

Question 35

Which **one** of the following is **not** a solution to improving physical accessibility to sport?

A Discounted rates

B Hearing loops

C Pool hoists

D Wheelchair ramps

[1]

Question 36

Item removed due to third party copyright restrictions

Fig. 6

Fig. 6 shows the results from the different types of activity people are taking part in.

Using **Fig. 6** which type of activity is the second least popular?

A Cycling for leisure/sport

B Cycling for travel

C Fitness activities

D Sporting activities

[1]

Question 37

Item removed due to third party copyright restrictions

Fig. 6

Fig. 6 shows the results from the different types of activity people are taking part in.

Using **Fig. 6** which type of activity is the second least popular?

- A
- B
- C
- D

[1]

Question 38

Which **one** of the following is **not** a cultural barrier to participation?

- A Disability
- B Ethnicity
- C Gender
- D Religion

[1]

Question 39

Which **one** of the following statements is **true**?

- A Ethnic minorities participate in physical activity less than the national average
- B Females participate in physical activity more than males
- C People with disabilities are more likely to take part in physical activity than non-disabled people
- D Retired people over the age of 75 participate in physical activity more than people who are still working

[1]

Question 40

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

A Having a low income

B Having to work different shifts

C Living in the countryside

D Recovering from an injury

[1]

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