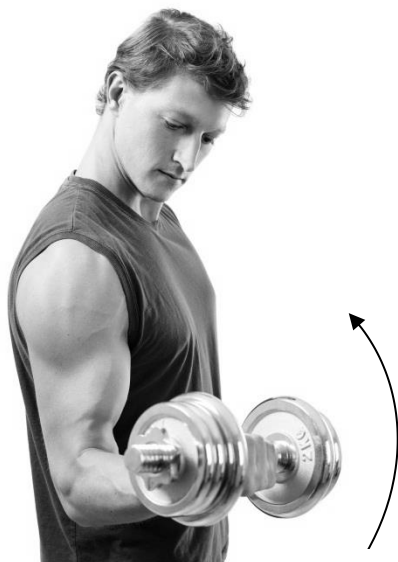


Section A
Answer all the questions.

- 1** The image below shows someone performing a bicep curl.



Name the agonist and the antagonist muscles used when performing this move.

Agonist:

.....

Antagonist:

.....

[1]

- 2** Compare continuous training and fartlek training.

.....

.....

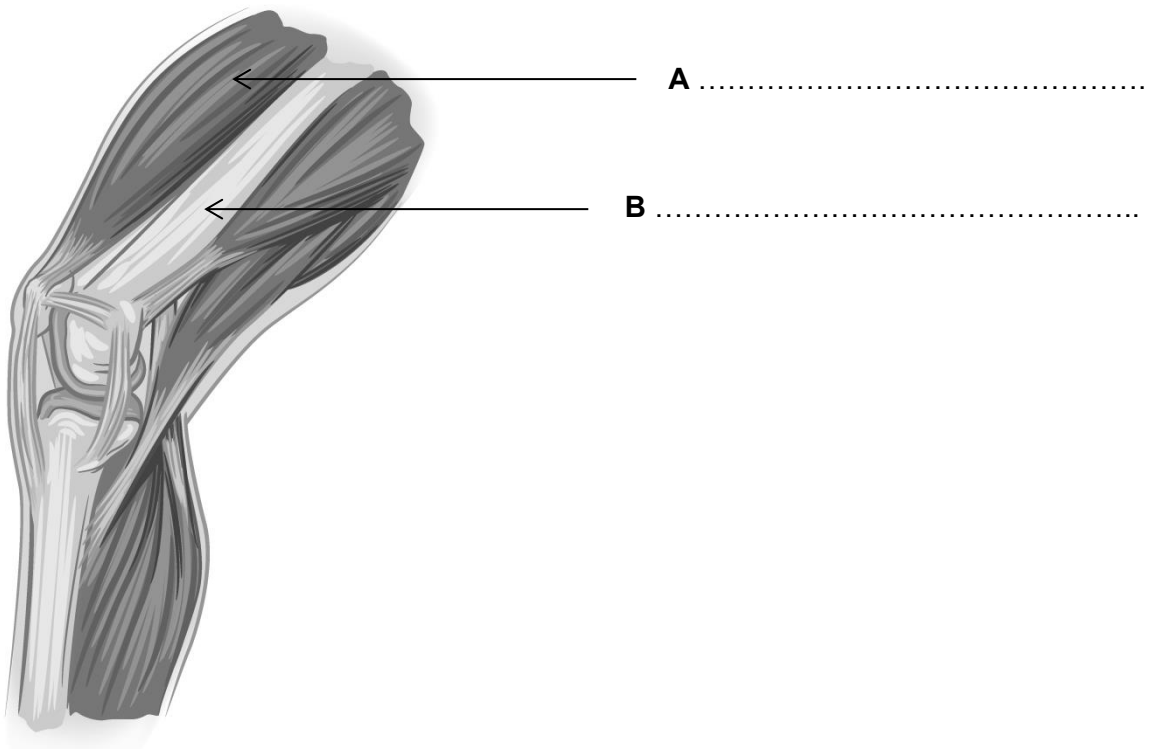
.....

.....

[2]

- 3 (a) Fig.1 shows a diagram of the knee. Label the muscle group **A** and the bone **B**.

Fig.1



[2]

- (b) Describe **two** roles of ligaments within joints when performing a physical activity.

.....
.....
.....
.....

[2]

- 4 Which **one** of the following is the best example of the overload principle of training?
Put a tick (✓) in the box next to the correct answer.

- (A) A weightlifter who loses muscle hypertrophy due to not training because of injury.
(B) A javelin thrower who lifts too much during a weights session.
(C) A hockey player who adapts their training session to suit their needs.
(D) A basketball player who works harder than normal during a training session.

☐
☐
☐
☐

[1]

- 5 **Fig.2** below shows the passage of air from when oxygen is breathed in through the mouth or nose until oxygen is passed to the red blood cells.

Put the following words in the correct order to complete **Fig.2**.

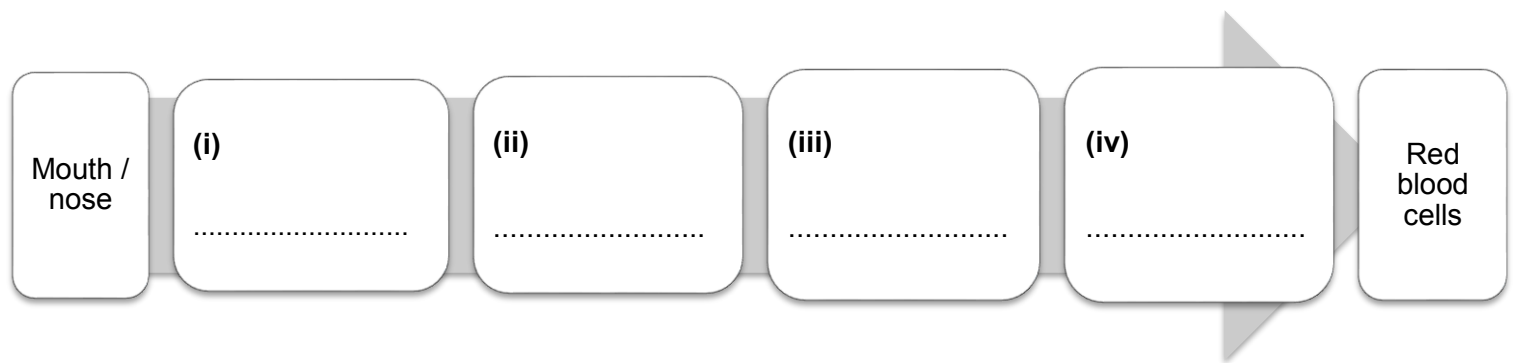
Bronchi

Alveoli

Trachea

Bronchiole

Fig.2



[1]

- 6 Describe **one** role of red blood cells during exercise.

.....

[1]

- 7 The dancer in the picture below has performed a movement that has passed through the frontal plane.



Is this statement true or false? Draw a circle around your answer.

True

False

[1]

- 8 Which **one** of the following statements is false?
Put a tick (✓) in the box next to the correct answer.

- (A) The movement at the elbow joint during a biceps curl is an example of flexion and extension.
- (B) The deltoid at the shoulder joint during a biceps curl is an example of a fixator.
- (C) Most of the lever systems that provide movement in sport are examples of third class levers.
- (D) An example of a second class lever is a tennis player using their elbow joint during a forehand shot.

☐
☐
☐
☐

[1]

- 9 Identify the waste product which causes muscular fatigue during exercise.

.....

[1]

10 Leon has just taken part in a rugby match and needs to complete a cool down.

Complete **Table 1** below by:

- (i) identifying the missing component of a cool down
- (ii) describing the missing cool down activity
- (iii) describing the physical benefit of the cool down activity.

Table 1

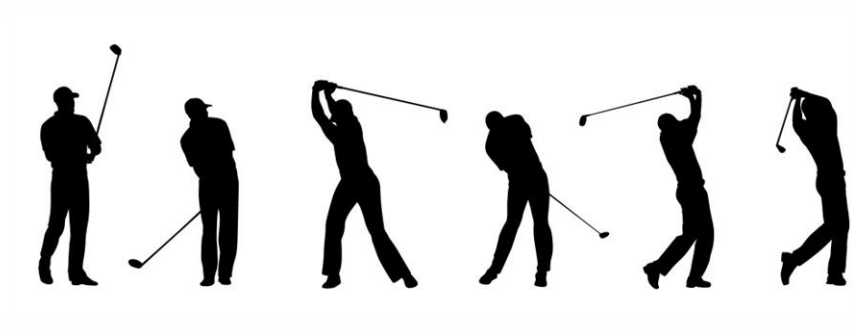
Component of cool down	Description of cool down activity	Physical benefit
(i)	light jogging around the rugby pitch	(iii)
stretching	(ii)	promotes recovery of muscles for next rugby match

[3]

11 Complete the following statements using words from the box below.

(a) The volume of air moved in and out of the lungs per breath is known as

(b) The series of images below show a golf swing.



The main movement plane during a golf swing is

stroke volume	sagittal	rotation
minute ventilation	transverse	tidal volume

[2]

12 What class of lever is involved when performing a header in a game of football?

.....

[1]

13 Describe how the skeleton performs **three** of its functions.

1

.....

2

.....

3

.....

[3]

14 Mobility is a key component of warm ups. Describe **two** different practical examples of mobility exercises which could be used as part of a warm up for named physical activities or sports.

Mobility exercise.....

Physical activity or sport:.....

[1]

Mobility exercise.....

Physical activity or sport:.....

[1]

15 Which axis of rotation will a gymnast be using when performing a cartwheel?

.....

[1]

16 Identify a suitable test that can be used to assess the stamina of a marathon runner.

.....

[1]

- 17** Which **one** of the following is **not** an articulating bone of the elbow joint?
Put a tick (✓) in the box next to the correct answer.

(A) humerus

☐

(B) radius

☐

(C) clavicle

☐

(D) ulna

☐

[1]

- 18** Outline what is meant by High Intensity Interval Training (HIIT).

.....

.....

[1]

- 19** Using a practical example, explain **one** way correct footwear can minimise the risk of injury in sport or physical activity.

.....

[1]

- 20** Which **one** of the following is the best practical example of muscular endurance?

(A) An athlete running a 1500 metre race.

☐

(B) A sprinter driving out of the blocks at the start of a race.

☐

(C) A rugby player who sprints from the half way line to score a try.

☐

(D) A basketball player dribbling around an opponent to score a basket.

☐

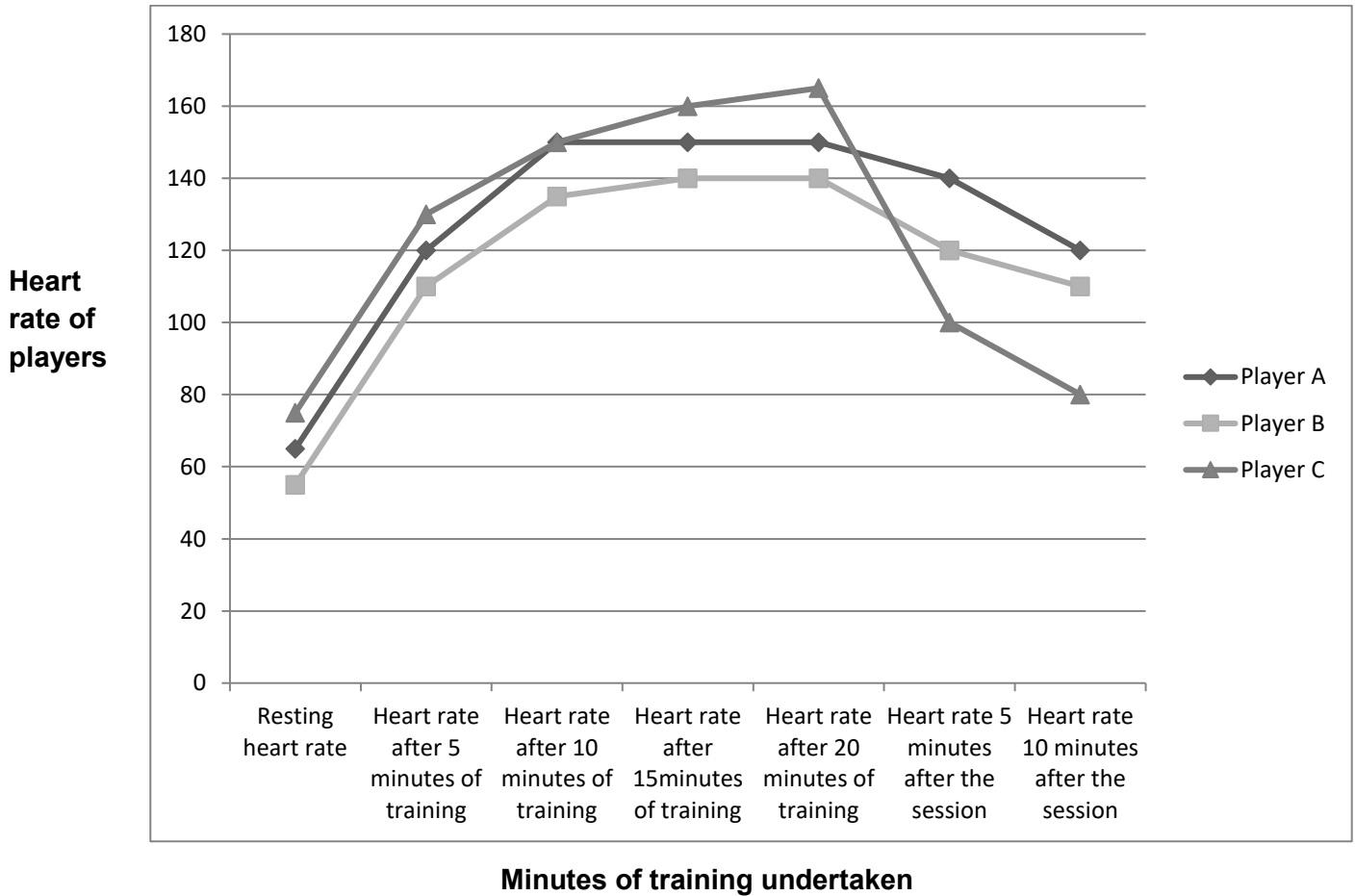
[1]

Section B
Answer all the questions.

- 21** As part of their 8 week pre-season football training programme, players are monitored in terms of the changes in heart rate that occur during and after a training session.

Fig. 3 shows a graph of heart rate results for three players during the first training session of the programme.

Fig. 3



- (a)** Using the information in Fig.3, analyse the players' fitness levels, performance in training and recovery.

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- (b) Describe **two** short term effects which the pre-season training programme could have on the players' hearts.

- 1
-
- 2
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[2]

- (c) Evaluate how the long term effects of exercise on the muscular system could be beneficial to a footballer.

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[5]

- 22 (a)** The heart is responsible for pumping blood around the body.

Describe how the double circulatory system performs this function.

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[4]

- (b)** Two dancers are preparing for performance. Dancer A is sitting on the floor performing static stretching. Dancer B is performing a dress rehearsal of their physically demanding dance routine.

(i) Describe how the changes in blood flow for Dancer B will be different to those for Dancer A.

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[3]

(ii) Compare the changes in the respiratory system of Dancer A to Dancer B.

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[3]

23 (a) 'Type' is one of the components of the FITT principle of training. High Intensity Interval Training is an example of a 'type' of training.

Give **two** other practical examples of 'type' in personal exercise programmes and assess **two** ways in which applying this principle might help someone who is carrying out this programme.

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[4]

- (b)*** Using practical examples, explain how a personal trainer might reduce the risk of injury to a participant when delivering a training session in a fitness centre.

How could the general health, fitness and wellbeing of a participant influence their risk of injury?

[illegible]

[6]

Summary of updates

Date	Version	Details
September 2021	2.6	Updated copyright acknowledgements.

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