

Physical Education
COMPONENT 1: Fitness and Body Systems

Diagram Booklet

In the boxes below, write your name, centre number and candidate number.

| | | | | | |
|------------------|--|--|--|--|--|
| Surname | | | | | |
| Other names | | | | | |
| Centre Number | | | | | |
| Candidate Number | | | | | |

INSTRUCTIONS

There may be spare copies of some diagrams in case you need them.

**THIS DIAGRAM BOOKLET *MUST* BE RETURNED WITH THE
QUESTION PAPER AT THE END OF THE EXAMINATION.**

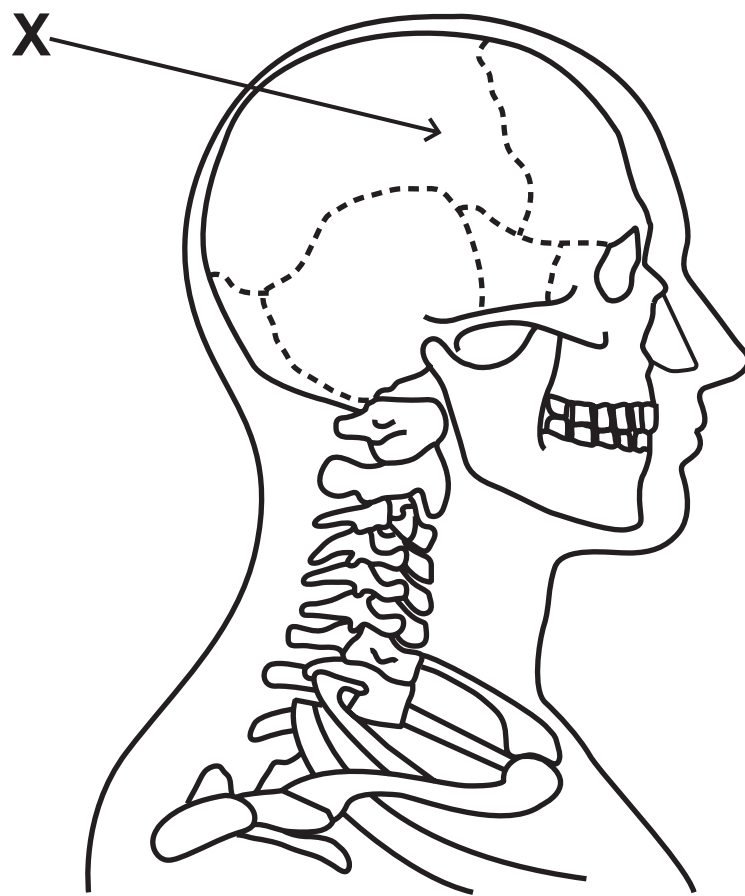
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Question 1(a)

FIGURE 1



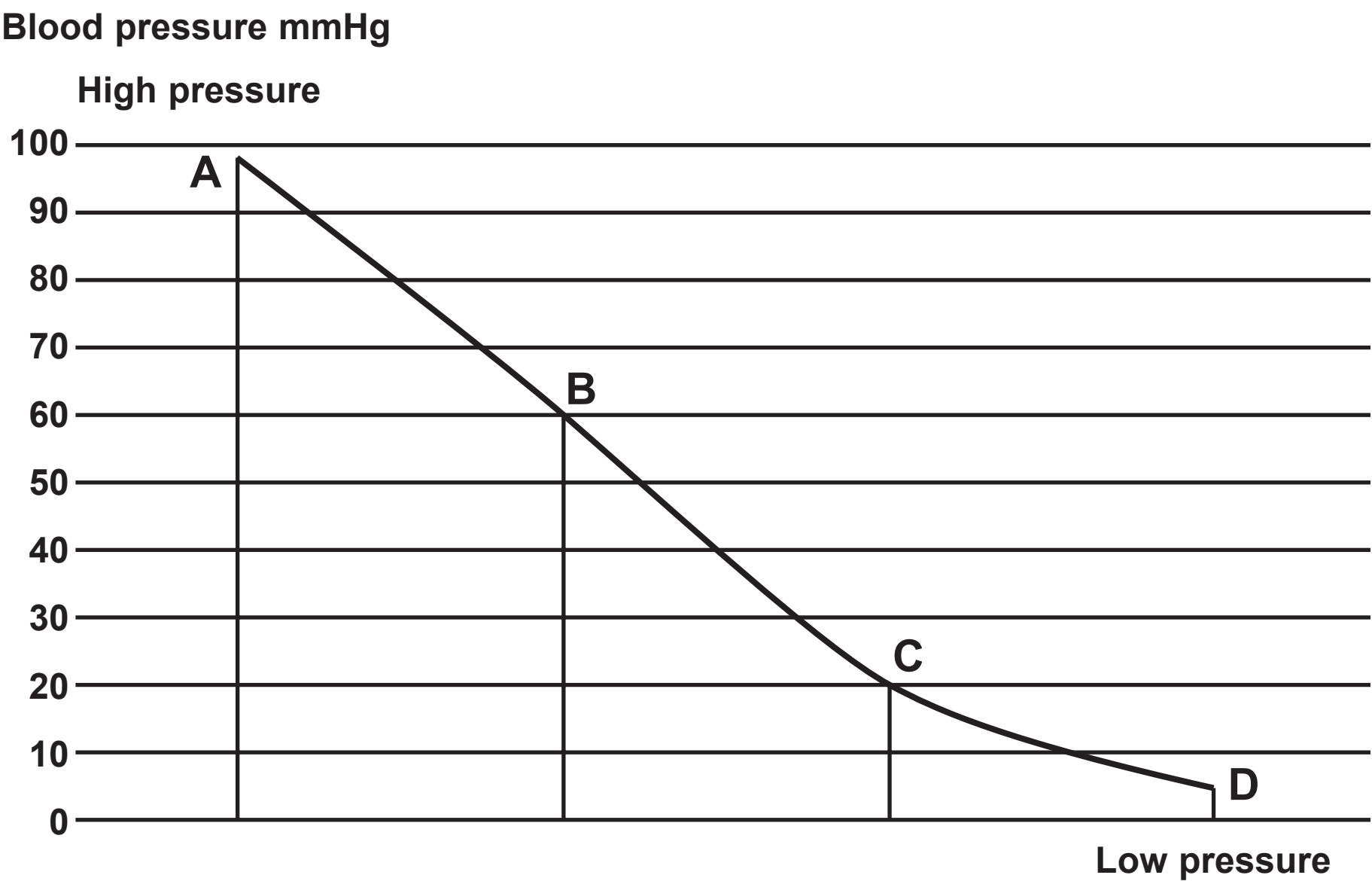
Question 1(e)

TABLE 1

| Gender | Excellent | Good | Average | Fair |
|--------|-----------|-------|---------|-------|
| Male | >56 | 51–56 | 45–50 | 39–44 |
| Female | >36 | 31–36 | 25–30 | 19–24 |

Question 1(f)

FIGURE 2



Question 2(a) and Question 2(b)

FIGURE 4

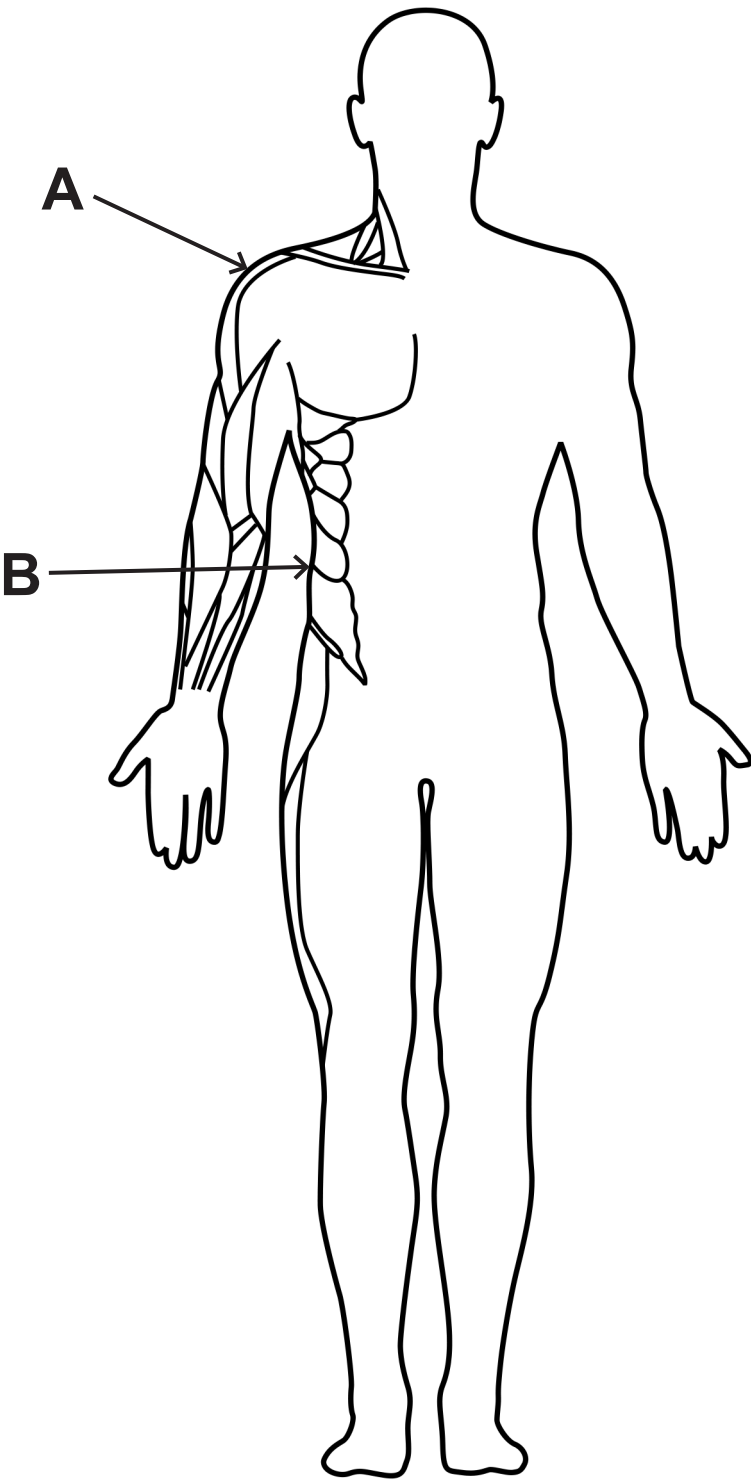


TABLE 2

| Labelled muscle | (a) Name of the muscle | (b) Function of the muscle |
|---|------------------------|----------------------------|
| A (pointing to the shoulder) | (1 mark) | (1 mark) |
| B (pointing to the side of the trunk) | (1 mark) | (1 mark) |

Question 2(a) and Question 2(b)

FIGURE 4

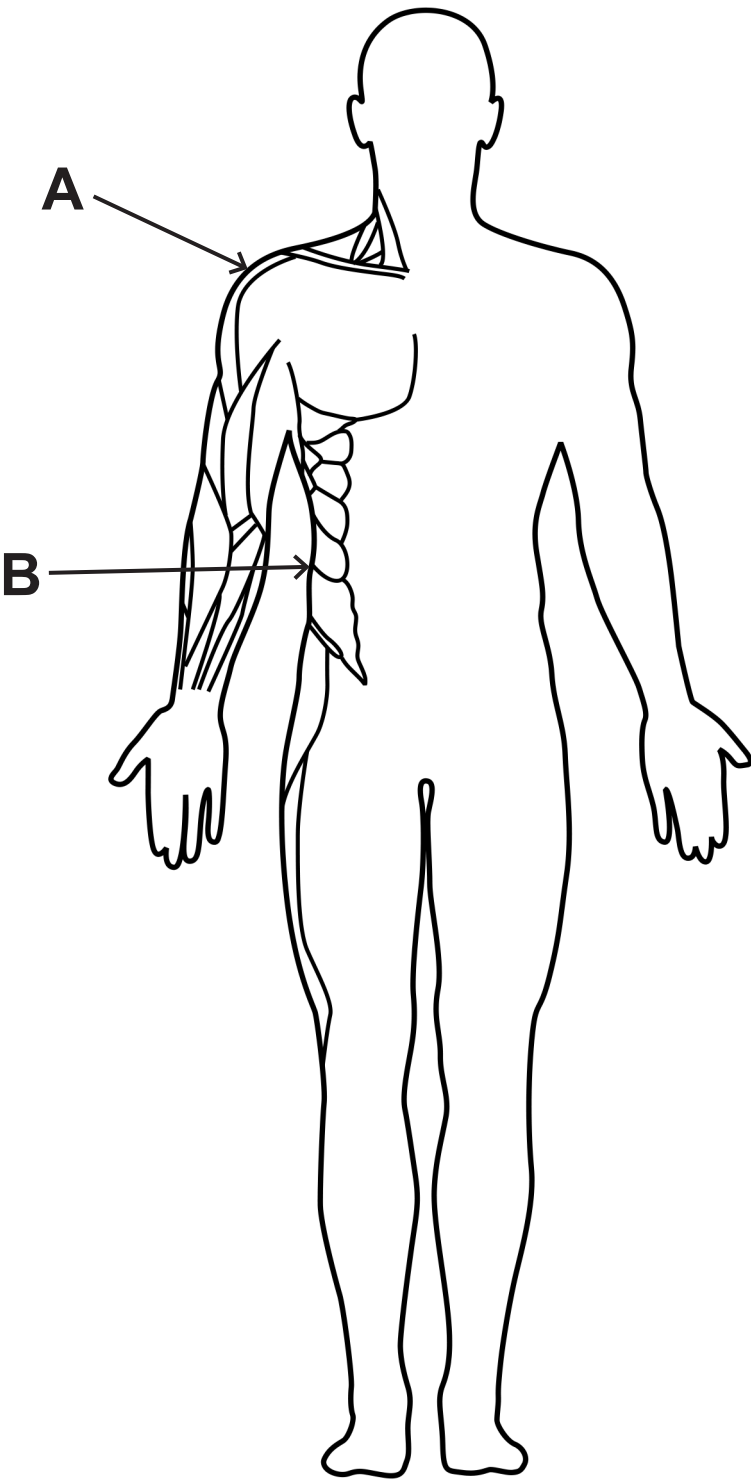
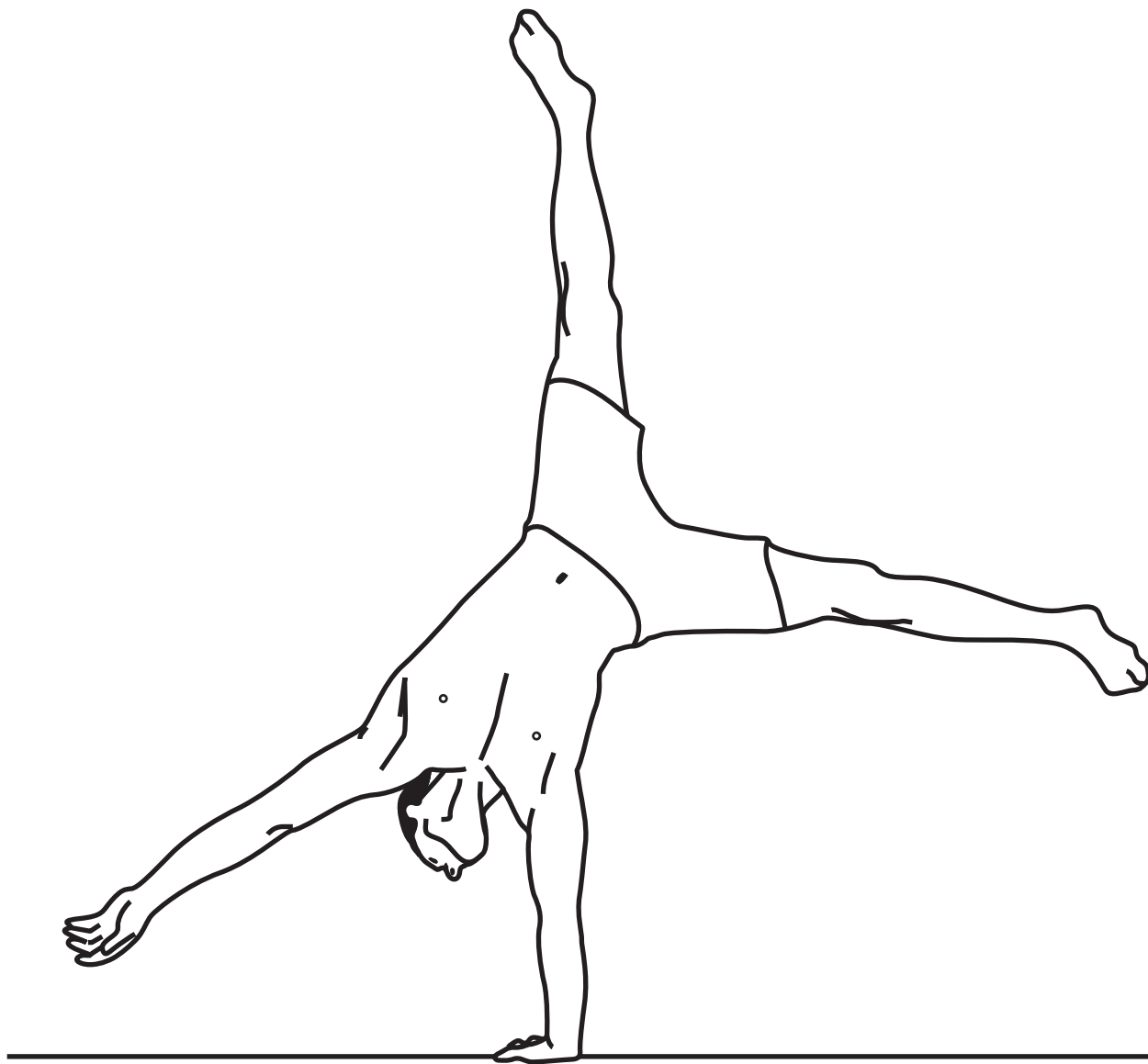


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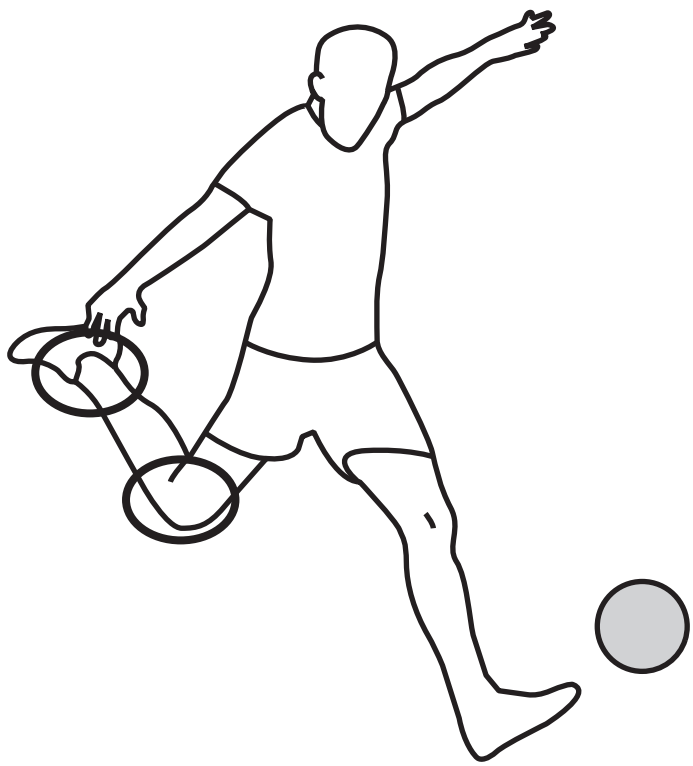
Question 4

FIGURE 5

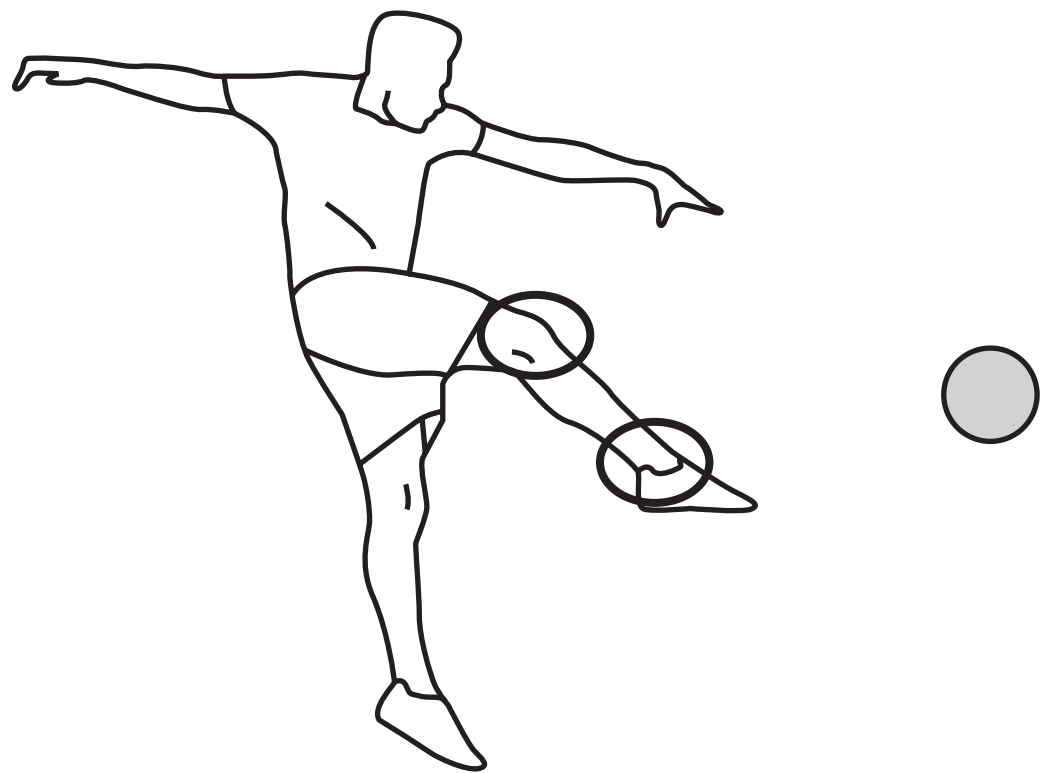


Question 5

FIGURE 6



Position A



Position B

Question 6

FIGURE 7

- I train 4 times a week.
- Each of my training sessions are in a gym.
- I work at 60% of my maximum heart rate in my aerobic target zone.
- Each gym session lasts 60 minutes.

TABLE 3

| Principle of training | Example |
|-----------------------|----------|
| Time | (1 mark) |
| Progressive overload | (1 mark) |

Question 6

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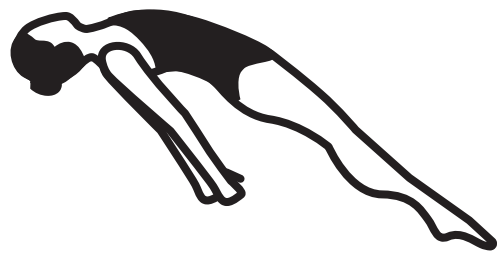
Question 7

TABLE 4

| Fitness test | Athlete 1 | Athlete 2 | Athlete 3 | Athlete 4 |
|----------------------|-----------|-----------|-----------|-----------|
| Vertical jump | Very good | Average | Poor | Very good |
| 30m sprint | Very good | Average | Excellent | Good |
| Sit and reach | Very good | Good | Average | Average |
| Cooper 12-minute run | Poor | Excellent | Average | Poor |

Question 8

FIGURE 8



Question 9(a)

TABLE 5

| | Description of effect | Name of type of performance-enhancing drug |
|------|--|--|
| (i) | This drug allows the performer to train harder and for longer, helping them increase muscle strength and power. | (1 mark) |
| (ii) | This drug leads to quick weight loss as urine is passed sooner, so may also be used to mask the presence of other drugs. | (1 mark) |

Question 9(a)

TABLE 5

| | Description of effect | Name of type of performance-enhancing drug |
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| (ii) | This drug leads to quick weight loss as urine is passed sooner, so may also be used to mask the presence of other drugs. | (1 mark) |

Question 10

TABLE 6

| Performer | Fitness test 1 | Fitness test 2 |
|----------------|--------------------|-----------------------|
| 10,000m runner | Sit and reach test | Harvard step test |
| Shot putter | Vertical jump test | Cooper 12-minute swim |

Question 11

TABLE 7

| |
|------------------------------|
| Short-term effects |
| Lactate accumulation |
| Increased depth of breathing |
| Increased heart rate |

Question 1(a)
Source: © PAL

Question 1(e)
**Source: © Adapted from Davis et al Physical Education and the study of sport, 2000/
<https://www.brianmac.co.uk/grip.htm>**

Question 2
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Question 4
Source: © PAL

Question 5
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Question 8
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