Name: _____

PRACTICE QUESTIONS

Yr 10 summer project 2018

Use the revision grid, your book notes and your revision guide to answer the questions in this practice paper. This will help you consolidate the information you have just looked at.

Questions

Q1.

Complete the following statement about hinge joints.

The range of movement possible at a hinge joint is

(1)

. . . . . to . . . . . .

Q2.

Complete the following statement about hinge joints.

(i) The . . . . . is an example of a hinge joint in the body.

(1)

(ii) Give a specific sporting action where this range of movement is used at this joint.

(1)

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Q4.

Figure 6 shows the muscular system while running.

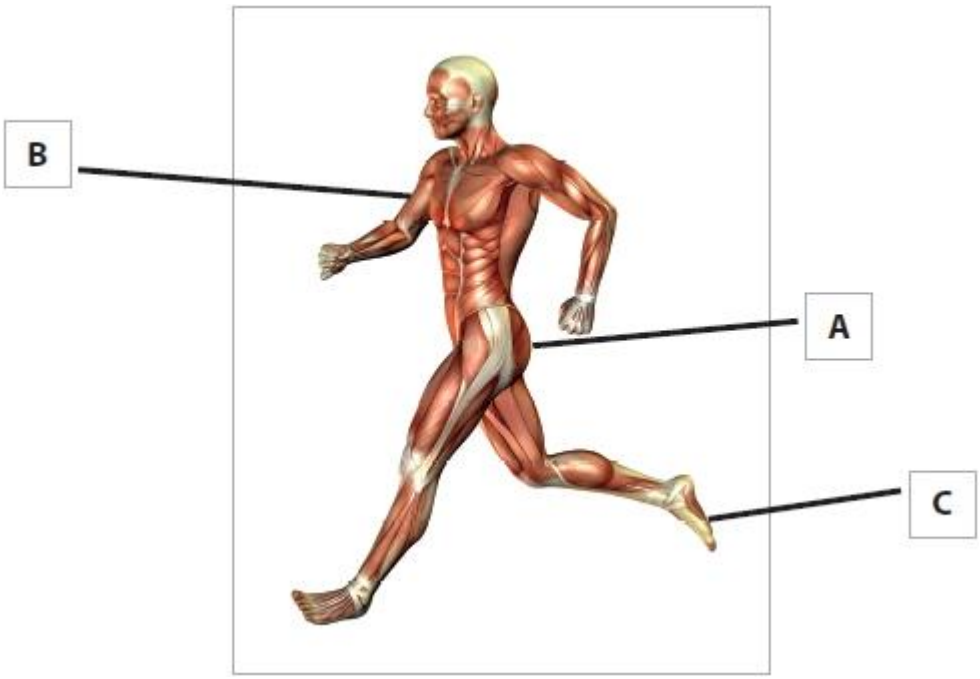

Figure 6

(a) Complete the following statements about the labelled muscles in **Figure 6**.

(2)

The muscle labelled **A** in **Figure 6** is the

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When muscle **A** contracts it

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(b) State the name of the muscle that works antagonistically with the muscle labelled **A** in **Figure 6**.

(1)

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(c) Analyse the action of muscle **B**, shown in **Figure 6**, to aid the performance of the runner.

(4)

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Q5.

Protection is a function of the skeletal system.

Explain, using **one** example, how the skeletal system's protective function aids performance in physical activity and sport.

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(Total for question = 3 marks)

Q6.

Figure 4 shows a rugby player about to pass the ball.

Figure 4

(a) Examine **two** ways the skeletal system makes it possible for the rugby player to move into the position shown to pass the ball.

(6)

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2 .....

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(b) White blood cells are produced by the skeletal system.

Explain, using an example, why white blood cell production is important to the rugby player.

(3)

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(Total for question = 9 marks)

Q7.

Identify an exercise activity that will result in an increase in bone density.

(1)

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Q9.

Figure 6 shows a gymnast moving from a standing Position A on the beam to a split Position B in the air.

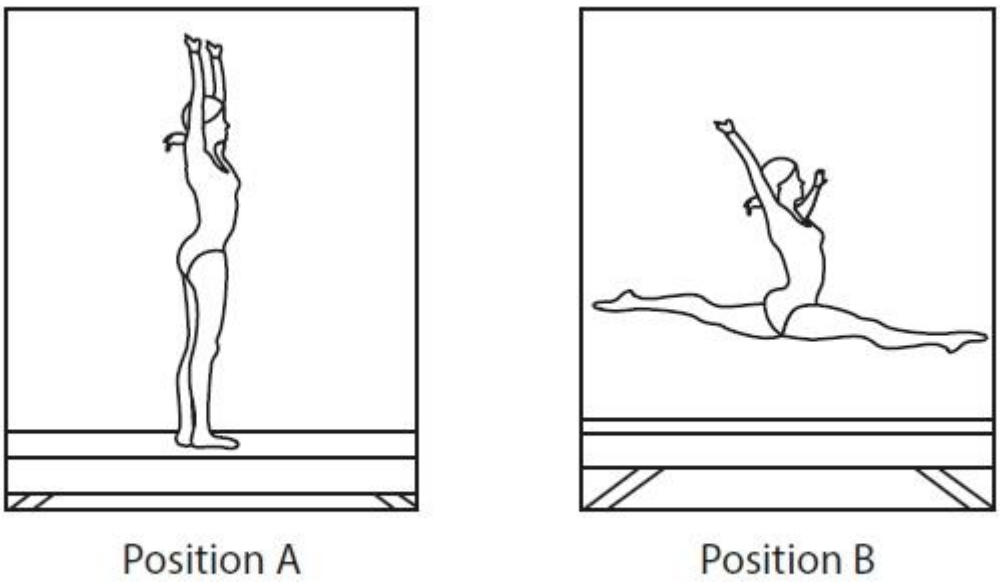

Figure 6

Analyse the movement and muscle action at the ankle as the performer in Figure 6 moves from Position A to Position B.

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(Total for question = 4 marks)

Q10.

Describe the antagonistic muscle action that allows flexion and extension at the elbow **and** knee.

(4)

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Q11.

(a) Which one of the following muscle fibre types is best suited for use in a 100 m sprint?

(1)

- ☒ **A** Type I
- ☒ **B** Type IIa
- ☒ **C** Type IIx

☒ **D** Slow twitch

(b) Which one of the following is the correct composition of inhaled air?

(1)

☒ **A** Oxygen 21%, carbon dioxide 4%, nitrogen 79%
☒ **B** Oxygen 16%, carbon dioxide 4%, nitrogen 79%
☒ **C** Oxygen 79%, carbon dioxide 4%, nitrogen 0.04%
☒ **D** Oxygen 21%, carbon dioxide 0.04%, nitrogen 79%

(f) Which one of the following performance-enhancing drugs is an athlete **most** likely to take if they are suffering from a painful injury?

(1)

☒ **A** Anabolic steroids
☒ **B** Beta blockers
☒ **C** Diuretics
☒ **D** Narcotic analgesics

Tom is 16, has a resting heart rate of 64 bpm and has just completed a six-week personal exercise programme (PEP).

Figure 2 shows Tom's working heart rate during each week of his training.

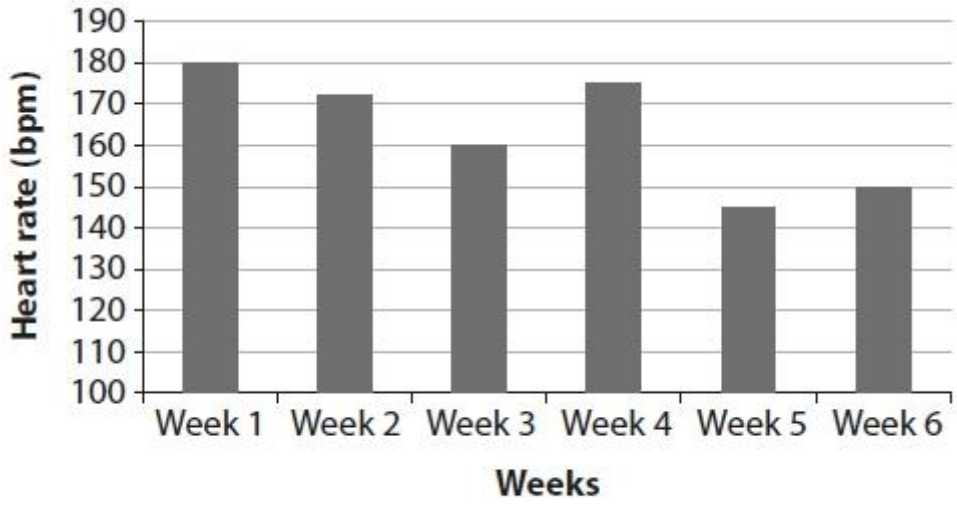

Figure 2

(g) State the total number of weeks Tom's heart rate was within his aerobic target zone.

(1)

☒ **A** One
☒ **B** Two
☒ **C** Three
☒ **D** Four

Jenny is a 16-year-old GCSE PE student. She has just taken the Cooper 12-minute run test.

Table 1 shows ratings for the Cooper 12-minute run test.

Age	Excellent	Above Average	Average	Below Average
15-16	>2100m	2000-2100m	1700-1999m	1600-1699m

Table 1

(h) Which one of the following is the correct rating for Jenny, given her score of 2050m in the Cooper 12-minute run test?

(1)

- ☒ **A** Excellent
- ☒ **B** Above average
- ☒ **C** Average
- ☒ **D** Below average

(Total for question = 8 marks)

Q12.

Ben and Jake are cross country runners. They both take part in a series of fitness tests.

After completing the Harvard Step Test, Ben recovers to his resting heart rate quicker than Jake.

Give **one** reason why this may not be a good test to assess fitness for cross country.

(1)

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Q13.

The shoulder is an example of a ball and socket joint. One possible range of movement at a ball and socket joint is flexion to extension.

State the other **two** ranges of movement possible at a ball and socket joint.

(2)

1 .....

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2

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Q15.

Which **one** of the following performers relies most heavily on a high level of cardiovascular fitness for success?

(1)

- ☒ **A** 200m runner
- ☒ **B** 400m runner
- ☒ **C** 800m runner
- ☒ **D** 1500m runner

Q20.

* Discuss the use of steroids to enhance performance in athletic events.

Candidates are not expected to use all the space provided.

(6)

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Q21.

Diuretics are a banned performance-enhancing drug.

State **two** reasons why an athlete may take diuretics even though they are banned.

Reason 1

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Reason 2

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(Total for question = 2 marks)

Q22.

Figure 7 shows Olympic doping cases by sport from 1968 to 2010.

No. of doping cases reported	III. Olympic doping cases by sport, 1968–2010
36	Weightlifting[1,2,3]
28	Athletics (Track and Field)[4,5,6]
12	Cross Country Skiing[7,8]
8	Equestrian
6	Ice Hockey[9,10,11], Wrestling[12]
5	Cycling[13]
3	Biathlon[8], Modern Pentathlon, Volleyball
3	Baseball[14], Gymnastics[15], Judo, Rowing, Swimming, Shooting
1	Alpine Skiing[16], Basketball, Boxing[17], Canoeing, Sailing
127	**Total**

(Source: http://sportsanddrugs.procon.org/view.resource.php?resourceID=004420)

Figure 7

Using **Figure 7**:

(a) Identify the activity with the greatest number of reported doping cases.

(1)

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(b) State the **most** likely type of performance-enhancing drug taken by the performers in the activity you identified in (a).

(1)

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Figure 8 shows the number of doping tests carried out in summer and winter Olympic Games.

Year	Place	Number of tests	Number of cases recorded
1968	Mexico City	667	1
1972	Munich	2,079	7
1976	Montreal	2,054	11
1980	Moscow	645	0
1984	Los Angeles	1,507	12
1988	Seoul	1,598	10
1992	Barcelona	1,848	5
1996	Atlanta	1,923	2
2000	Sydney	2,359	11
2004	Athens	3,667	26*
2008	Beijing	4,770	14+6**

Summer games

Year	Place	Number of tests	Number of cases recorded
1968	Grenoble	86	0
1972	Sapporo	211	1*
1976	Innsbruck	390	2**
1980	Lake Placid	440	0
1984	Sarajevo	424	1***
1988	Calgary	492	1****
1992	Albertville	522	0
1996	Lillehammer	529	0
2000	Nagano	621	0
2004	Salt Lake City	700	7
2008	Turin	1,200	7

Winter games

(Source: http://sportsanddrugs.procon.org/sourcefiles/IOCFactsheet2010.pdf)

Figure 8

(c) Analyse the data in **Figure 8** to determine:

- The trend in number of tests administered at the Olympic Games.

(1)

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- A difference in testing data between the summer and winter games

(1)

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(Total for question = 4 marks)

Q23.

Sam is studying GCSE PE.

As part of his course, he learns about ways to reduce high blood pressure.

During his GCSE PE course Sam designed a Personal Exercise Programme (PEP).

His aim was to improve his cardiovascular fitness.

One popular test to measure cardiovascular fitness is the Harvard Step test.

The Harvard Step test requires the participant to measure their heart rate at one-minute intervals after exercise.

Give **two** immediate effects that this exercise session would have on Sam's respiratory system.

(2)

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Q24.

Figure 9 shows a circuit.

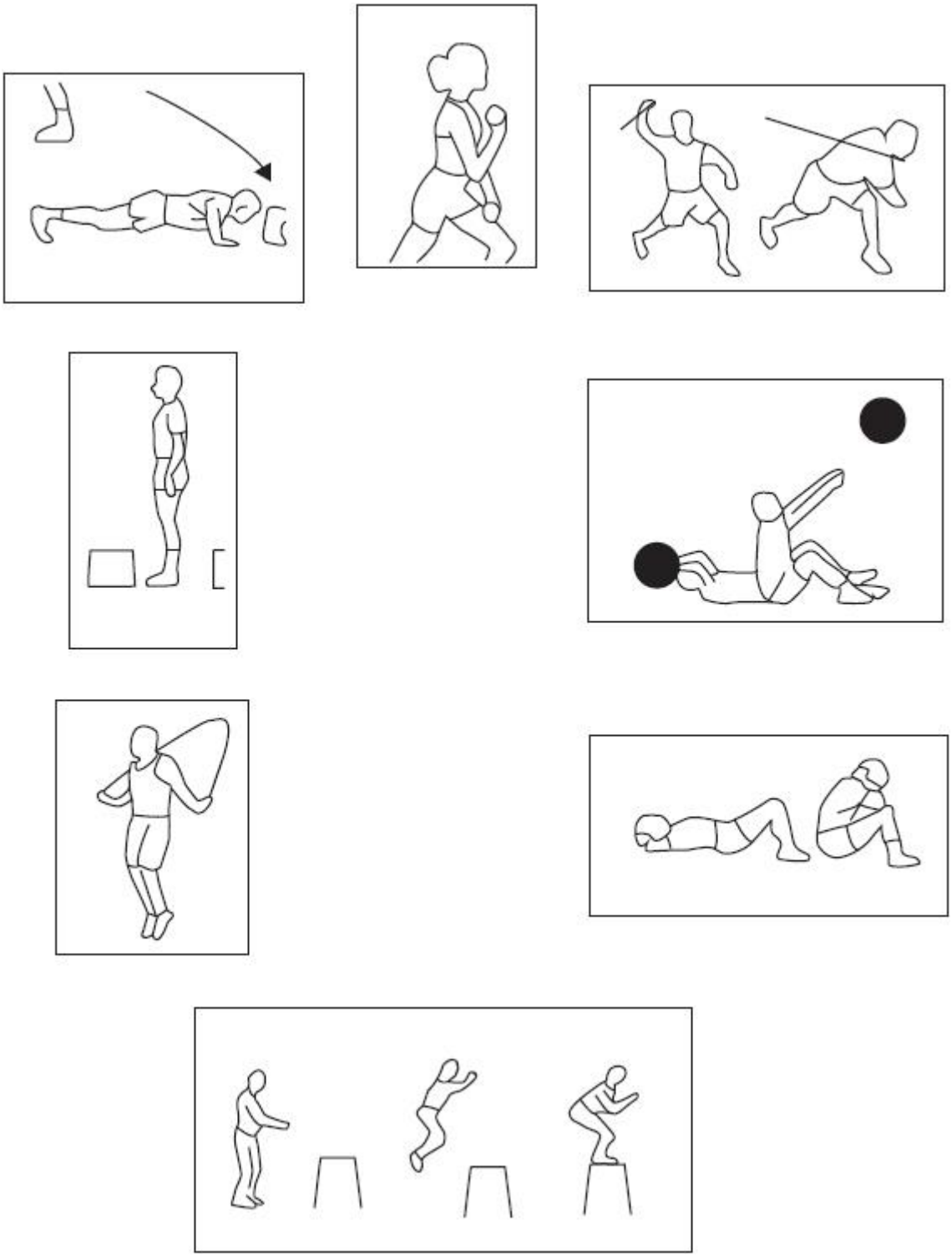

Figure 9

Padme wants to increase the distance she throws the javelin.

Discuss the suitability of the circuit shown in **Figure 9** to improve Padme's javelin performance.

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(Total for question = 9 marks)

Q30.

Figure 3 shows the movement of gases into and out of a capillary.

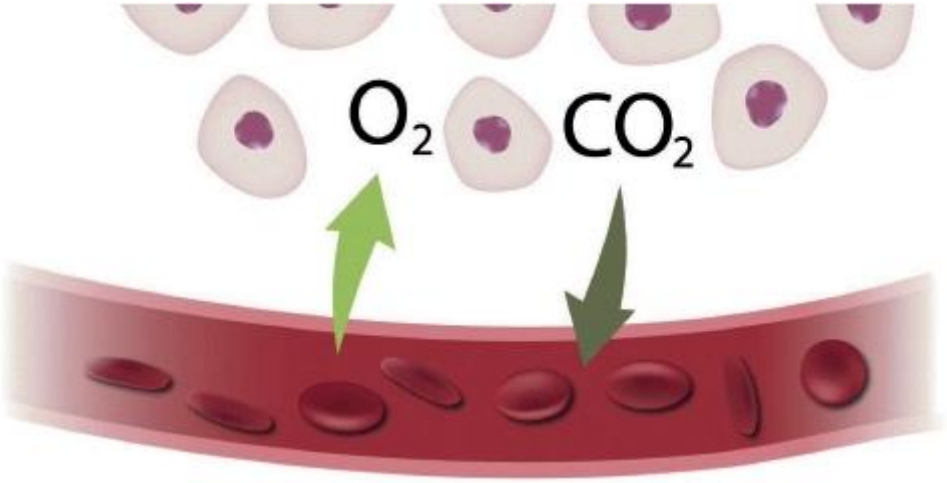

Figure 3

(a) Using **Figure 3**, state where this gas exchange is taking place.

(1)

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(b) State **two** reasons why gas exchange is important in a long tennis match.

(2)

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(Total for question = 3 marks)

Q33.

Elite sports performers make sure they eat a balanced diet.

Briefly explain the importance of carbohydrates and protein to an elite sports performer.

(i) Carbohydrates

(2)

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(ii) Protein

(2)

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(Total for question = 4 marks)

Q34.

Figure 4 shows a javelin thrower.

Position A Position B

Figure 4

Identify the joint action at the elbow as the performer in **Figure 4** moves the javelin **from** position A **to** position B.

(1)

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Q36.

Cholesterol is often measured as part of a health check

Which **one** of the following is a correct statement about cholesterol?

(1)

☒ **A** An increase in fat intake will only increase HDL (high density lipoprotein) levels.

☒ **B** Regular aerobic activity has no effect on cholesterol levels.

☒ **C** Correct diet can improve cholesterol levels.

☒ **D** High levels of LDL (low density lipoprotein) are preferable to high levels of HDL (high density lipoprotein).