

Command Words

Analyse	Separate information into components and identify their characteristics.
Apply	Put into effect in a recognised way.
Calculate	Work out the value of something.
Compare	Identify similarities and or differences.
Complete	Finish a task by adding to given information.
Consider	Review and respond to given information.
Define	Specify meaning.
Describe	Set out characteristics.
Discuss	Present key points about different ideas or strengths and weaknesses of an idea.
Evaluate	Judge from available evidence.
Explain	Set out purposes or reasons.
Identify	Name or otherwise characterise.
Illustrate	Present clarifying examples.
Interpret	Translate information into recognisable form.
Justify	Support a case with evidence.
Outline	Set out main characteristics.
Suggest	Present a possible case/solution.
State	Express clearly and briefly.

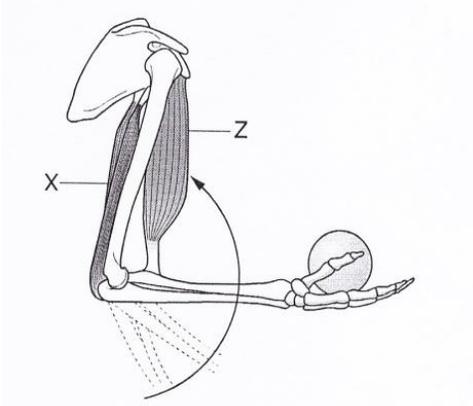
Name / state / identify / Give

Command word	What you have to do	In simple terms
State /Name/ Give	Express clearly and briefly.	Simple short answer with no description or explanation. Be guided by number of marks as with all questions.
Identify	Name or otherwise characterise.	

Chair analogy: State what is on the table

A chair is on the table

Using the diagram of an elbow joint:



- (i) Name muscle X [1]
- (ii) Name muscle Z [1]
- (iii) Identify which muscle is the agonist [1]
- (iv) Identify which muscle is the antagonist [1]

Four marks max for identifying and naming

- (i) X = Tricep
- (ii) Z = Bicep
- (iii) Agonist is the biceps (brachii)/Z
- (iv) Antagonist is the triceps (brachii)/X

7. Name the **two** bones that form the shoulder joint. [2]

- A. Humerus
- B. Scapula

8. Name the **three** bones that form the elbow joint. [3]

- A. Humerus
- B. Radius

C. *Ulna*

9. Name the **three** bones that form the ankle joint and state the type of synovial joint found at the ankle. [4]

Four marks for:

- A. *Talus*
- B. *Tibia*
- C. *Fibula*
- D. *Hinge joint*

13. Name the muscles that cause movements at the ankle. [2]

A. *Gastrocnemius*

Tibialis anterior

1. When we breathe in, air enters our nose and mouth. Identify the other structures through which air passes before entering our lungs. [4]

Four marks for:

- 1. *Trachea*
- 2. *Bronchi*
- 3. *Bronchioles*
- 4. *Alveoli*

2. State the type of blood vessels that carry blood away from the heart. [1]

A. *Arteries / aorta*

3. State the term used to describe the narrowing of small arteries to re-distribute blood? [1]

A. *Vasoconstriction*

4. Give **three** short term effects of exercise on the heart. [3]

3 marks for:

- A. *Increase in heart / pulse rate*
- B. *Increase in cardiac output / more blood pumped out per minute*
- C. *Increase in stroke volume*

1. State the type of exercise that the equation 'glucose → energy + lactic acid' summarises. [1]

A. *Anaerobic*

2. Describe how ice baths speed up recovery. [2]

Any 2 from:

- A. *Flush out waste products*
- B. *E.g. lactic acid*
- C. *Increase blood flow into muscles after leaving bath*

1. The diagram represents the lever system operating at the elbow joint during the extension phase of a throw



- (i) State the class of lever that operates at the elbow during extension. [1]
- (ii) Identify which parts of the lever system at the elbow that labels A and B represent. [2]

- (i) *First class lever*
- (ii) *A - resistance/load or effort/force*
B - resistance/load or effort/force

2. Identify the plane and axis involved in a cartwheel. [2]

- A. *Frontal plane*
- B. *Sagittal axis*

1. Identify **two** components of fitness required by a shot putter. [2]

Two marks for two from:

- A. *Strength*
- B. *Power*
- C. *Speed*
- D. *Flexibility*
- E. *Balance*
- F. *Co-ordination*

DEFINE

5. Define tidal volume and state its average value. [2]

- A. *Amount / volume of air entering lungs during normal breathing*
- B. *500 mls / 0.5 litres*

2. Define health. [1]

A. *Complete physical, mental and social well-being*

3. Define fitness. [1]

A. *Ability to cope with demands of environment*

4. Define agility and describe a suitable test to measure agility. [5]

Four marks for 4 from:

Sub max one mark

A. *Ability to change direction quickly*

5. Other than frequency, what are the other components of the FITT principle? [3]

Three marks for 3 from:

A. *Intensity*

B. *Time*

C. *Type*

D. *Tedium*

Describe

1. Describe the main functions of the skeletal system that keep the body healthy and active. [4]

Four marks for 4 from:

A. *Shape/support*

B. *Blood cell (red) production*

C. *Mineral production/store*

D. *Protection*

E. *To be able to move/keep moving/being mobile/leverage*

4. Describe, using an example of a named hinge joint, the structure of a synovial joint. [4]

4 marks for 4 from:

A. *E.g. - knee, elbow, ankle*

B. *Joint - where two or more bones meet*

C. *Has joint capsule*

D. *Has synovial fluid*

E. *Has synovial membrane*

F. *Cartilage (on articulating surfaces)*

G. *Has ligaments (holding bone to bone)*

6. Describe the route taken by deoxygenated blood from when it enters the heart until it becomes oxygenated. [4]

- A. *Enters right atria*
- B. *Via vena cava*
- C. *Passes through a-v valve*
- D. *Into right ventricle*
- E. *Systole / contraction*
- F. *blood into pulmonary artery*
- G. *To lungs*

3. Describe **four** long term effects of exercise on muscles. [4]

Four marks for four from:

- A. *Increase in size (of muscle fibres) / hypertrophy of muscles*
- B. *Increase in strength (of muscle fibres) / power*
- C. *Increase in muscular endurance*
- D. *Increase in flexibility (of muscle) / elasticity*
- E. *Increased tolerance to lactic acid / removal of lactic acid*
- F. *Greater potential for energy production/more energy available*
- G. *Increase in capillaries / more oxygen / haemoglobin to (working) muscles*

6. Describe how flexibility can help you lead a healthy lifestyle. [4]

four marks for four from:

- A. *(General) To stop danger of straining yourself / safer (e.g. lifting)*
- B. *(Specific joint/ muscular) To prevent joint /muscle injuries/healthy joints/better posture*
- C. *To be able to reach for things easier/greater range of movement*
- D. *To be able to perform activities that demand flexibility such as gymnastics / enables you to want to do more exercise / enables activity in old age*
- E. *To be able to move faster/ quicker reactions/more agile*
- F. *To be more effective in movement technique*
- G. *To go about everyday activities more easily/ do jobs better*

7. Describe plyometrics. [3]

- A. *bounding/hopping*
- B. *On off boxes*
- C. *concentric contractions of muscles*
- D. *and eccentric*
- E. *usually leg muscles*
- F. *needs warm up*
- G. *Very strenuous*

8. Describe the sit and reach test for flexibility.

[2]

- A. *Sit on floor with legs straight*
- B. *No shoes; Feet flat on sit and reach board*
- C. *Reach forward as far as possible (push slider)*
- D. *Measure how far past toes*

9. Describe **four** ways in which continuous training can improve performance in physical activities. [4]

Four marks for 4 from:

- A. *Improves fitness/stamina/(cv)endurance/increases energy levels*
- B. *Can assist weight control/weight loss*
- C. *Decrease in fatigue/less need for rest*
- D. *Increase tolerance to lactic acid*
- E. *Emulates/duplicates the 'real game' situation/prepares for competition*
- F. *Reduces resting heart rate*
- G. *Increases heart efficiency/or adaptations identified (other than reducing resting heart rate)*
- H. *Improved efficiency of vascular shunt*
- I. *Increases lung efficiency/better use of O₂/or adaptations identified*
- J. *Increases muscular efficiency or adaptations identified*
- K. *Reduces blood pressure*
- L. *Reduces risk of health problems/or examples of these problems*

10. Describe **two** advantages and **two** disadvantages of circuit training. [4]

Four marks for four from:

Sub max 3 marks

Advantages

- A. *Variable*
- B. *Large numbers*
- C. *Simple*
- D. *Specific*
- E. *Easy to overload*

Disadvantages

Sub max 2 marks

- F. *Needs space*
- G. *Needs specialist equipment*
- H. *Hard to measure / track intensity*

11. Describe the benefits of altitude training. [4]

4 marks for four from:

- A. *Less oxygen at altitude*

- B. *Body produces More red blood cells/haemoglobin*
 - C. *Greater oxygen transport capacity/carry more oxygen*
 - D. *Greater stamina/cardio-respiratory endurance*
- E.g. marathon/endurance athletes.*

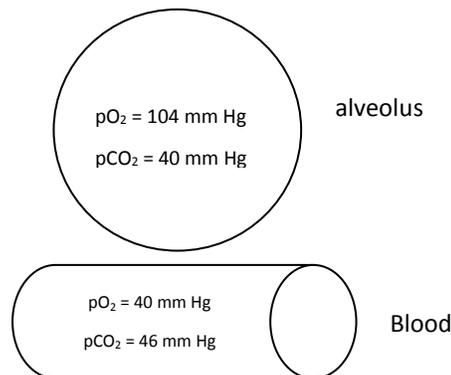
Explain, using a practical example for each, what is meant by abduction and adduction.

6. Explain, using a practical example for each, what is meant by abduction and adduction. [4]

Four marks for:

- A. *Adduction - movement towards mid line of body*
- B. *E.g. leg / arm action in breast stroke*
- C. *Abduction - movement away from mid line of body*
- D. *E.g. - splits / crucifix*

7. The diagram shows the concentrations of oxygen (pO_2) and carbon dioxide (pCO_2) in the alveoli and lung capillaries. Use the information in the diagram to explain how these gases move. [3]



Three marks for 3 from:

- A. *Process = diffusion*
- B. *Gases move from high to low concentration*
- C. *Oxygen from alveolus to blood / 104 to 40*
- D. *Carbon dioxide from blood to alveolus / 46 to 40*

12. Using a practical example, explain why a warm up is important before exercise. [4]

1 mark for:

- A. *an appropriate warm-up activity (jogging/stretching etc)*

Three marks for 3 from:

- B. *Increase temperature (of muscles)*

- C. *To improve performance/technique*
- D. *Raise heart rate/increase blood supply*
- E. *Rehearse skills*
- F. *Mentally prepare/get in the right mood or frame of mind/focus/increase motivation*
- G. *To increase/enable greater flexibility/loosen joints*
- H. *Reduces risk of muscle strain/reduce injury*
- I. *Improves speed/strength of muscular contractions*
- J. *Raise oxygen uptake/increase O₂ supply to muscles*

Justify

13. Do footballers need cardio-vascular endurance? Justify your answer. [2]

- A. *Cardio-vascular endurance – ability to supply oxygen to muscles*
- B. *Needed by footballers because matches last 90 minutes*

14. Do swimmers need to be flexible? Justify your answer. [2]

- A. *Flexibility – range of movement at a joint*
- B. *Larger range of movement means longer application of force – quicker*

15. Do tennis players need balance? Justify your answers. [2]

- A. *Balance – stay in equilibrium*
- B. *Need dynamic balance when moving around court*

16. The sit and reach test measures flexibility. Justify whether this is a suitable test for a swimmer. [4]

- E. *Swimmer – limited for leg flexibility/only measures hamstrings/back flexibility*
- F. *Definitely not for arms*

GCSE PE Extended questions

Six mark responses:

Marks for these questions: AO1 = 1, AO2 = 2 and AO3 = 3

Level	Marks	Description
3	5–6	Knowledge is accurate and generally well detailed. Application to a performer is mostly clear and effective. Analysis is thorough, reaching valid and well-reasoned links. The answer is generally clear, coherent and focused, with appropriate use of terminology throughout.
2	3–4	Knowledge is evident but is more detailed for some stages than others. There is some appropriate and effective application to a performer, although not always presented with clarity. Any analysis is clear but reaches only some valid and well-reasoned. The answer lacks coherence in places, although terminology is used appropriately on occasions
1	1–2	Knowledge is limited. Application to a performer is either absent or inappropriate. Analysis is poorly focused or absent, with few or no reasoned links. The answer as a whole lacks clarity and has inaccuracies. Terminology is either absent or inappropriately used.
0		No relevant content.

Nine mark responses:

Marks for these question: AO1 = 2, AO2 = 2 and AO3 = 5

Level	Marks	Description
3	7–9	Knowledge is accurate and generally well detailed. Application is mostly appropriate, clear and effective. Justification is thorough, reaching valid and well-reasoned conclusions. The answer is generally clear, coherent and focused, with appropriate use of terminology throughout.
2	4–6	Knowledge is evident but is more detailed for some aspects more than others. There is some appropriate and effective application, although not always presented with clarity. Any justification is clear but reaches valid and well-reasoned conclusions for some factors more than others. The answer lacks coherence in places, although terminology is used appropriately on occasions.
1	1–3	Knowledge is limited. Application is either absent or inappropriate. Justification is poorly focused or absent with few or no reasoned

		conclusions. The answer as a whole lacks clarity and has inaccuracies. Terminology is either absent or inappropriately used.
0		No relevant content.

1. Explain how long-term exercise may improve performance.

[9 marks]

Marks for this question: AO1 = 2, AO2 = 2 and AO3 = 5

Possible content may include:

AO 1

Body shape may change

Improved fitness

Change in body shape – less fat, more muscle

Increased muscle strength

Improved muscular endurance

Improved speed

Improved suppleness / flexibility

Better cardio-vascular endurance / stamina

Bigger heart

AO 2

Change in body shape – less fat, more muscle – from running/ cardiovascular exercise examples

Increased muscle strength – from playing rugby

Improved muscular endurance – from playing netball/ football

Improved speed – from playing basketball

Improved suppleness / flexibility – from yoga/ gymnastics

Better cardio-vascular endurance / stamina – from long swimming/ cycling

Bigger heart – from any sporting examples

AO 3

Hypertrophy – is enlarging of the heart – able to pump more blood per beat (Bigger stroke volume) – and per minute – (Bigger cardiac output). This would be beneficial for any cardiovascular event e.g. marathon as able to pump more blood around body and carry more oxygen. This would be beneficial in the production of aerobic energy/ respiration.

Lower resting heart rate (Bradycardia) explained

Improvements in fitness - better able to cope with exercise demands – explained...

Quicker recovery from (anaerobic) exertion.....

Less fatigue – improved performance/ less errors / advantages over less fit athletes towards end of game

Credit other suitable responses relevant to the question.