



The EverLearner

National Mock Exams 2024

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Model Answers

AQA GCSE PE - Paper 1

This document contains:

- Model answers for the National Mock Exam questions
- Model examples of extended writing

How should schools use these papers?

These model answers are written to support PE teachers and students review the National Mock Exam 2024 and to prepare for the live revision session delivered by James in May 2024. We strongly recommend that students learn these model answers in preparation for the summer exams 2024. The questions posed and the answers provided are based on significant analysis and model BOTH content and skills.

Please, use these model answers in combination with the National Mock Exam paper, mark scheme and the revision session (Wednesday, 8th of May 2024, 15:00-16:30), available via the AQA GCSE PE Revision page:

<https://pages.theeverlearner.com/2024-aqa-gcse-pe-revision>

All questions are taken from ExamSimulator. ExamSimulator is a premium resource available via TheEverLearner.com.

I hope this helps both students and teachers in their exam preparations.

James Simms



Subject	Physical Education
Course	AQA GCSE PE 9-1
Time allowed	1 hour 15 minutes

First name	
Last name	
Class	
Teacher	

Title	AQA GCSE PE 9-1 Paper 1 National Mock Exam 2024
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Guidance	<ul style="list-style-type: none">• This paper is marked out of 78 marks.• You have 75 minutes (plus additional time for those who have Exam Access Arrangements).• Answer all questions.• A calculator is permitted for this exam.• This paper contains a 6-mark question and a 9-mark question.• Good luck.
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Total marks	78
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1. Which of the following is a **long-term** effect of exercise on the **heart**?

- A Increased heart rate
- B Hypertrophy
- C Improved speed
- D Increased flexibility

B - Hypertrophy

Marks: [1]

2. Which of the following would be placed **in the middle** of a 2nd class lever diagram?

- A Joint
- B Mechanical advantage
- C Fulcrum
- D Load

D - Load

Marks: [1]

3. Which one of these is the correct description of cartilage in a synovial joint?

- A Prevents friction on the end of bones.
- B Encloses a joint.
- C Attaches bone to bone.
- D Secretes synovial fluid.

A - Prevents friction on the end of bones

Marks: [1]

4. Which of the following athletes is **most likely** to use altitude training?

- A Sprinter
- B Gymnast
- C Triathlete
- D Golfer

C - Triathlete

Marks: [1]

5. Which training intensity is correct when developing **strength**?

- A Above 70% of one rep max
- B Above 90% of one rep max
- C Below 70% of one rep max
- D 60-80% of maximal heart rate

A - above 70% of one rep max

Marks: **[1]**

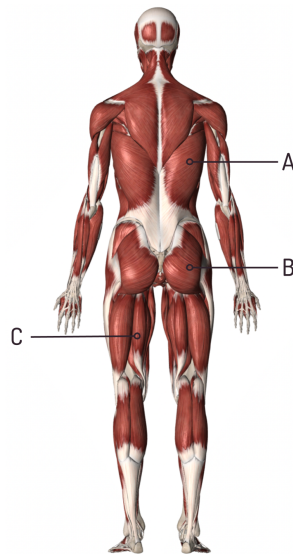
6. Which bones articulate at the hip joint?

- A Femur and tibia
- B Tibia and fibula
- C Pelvis and femur
- D Pelvis and tibia

C - Pelvis and femur

Marks: **[1]**

7. Look closely at the image.
Identify the muscles labelled **A**, **B** and **C**.



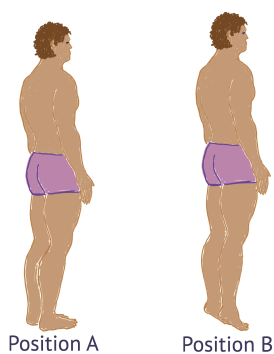
A: Latissimus dorsi

B: Gluteals

C: Hamstrings

Marks: **[3]**

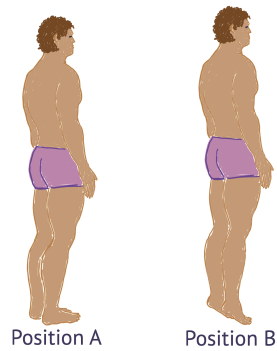
8. The image shows the performance of a body-weight exercise.
Identify the joint action taking place at the **ankle** as the participant moves **from position A to position B**.



Plantar flexion

Marks: **[1]**

9. The image shows the performance of a body-weight exercise. Identify **both** the agonist and the **antagonist** at the **ankle** when the participant moves **from position A to position B**.

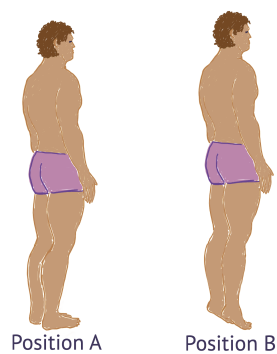


Agonist: Gastrocnemius

Antagonist: Tibialis anterior

Marks: [2]

10. The image shows the performance of a body-weight exercise. Identify the muscle contraction of the **agonist** when the participant moves **from position A to position B**.



Muscle contraction: The agonist is contracting concentrically

Marks: [1]

11. Look at the image of a rugby scrum.

Define static strength.

Justify why static strength is important in a rugby scrum.



Definition: Static strength is the ability to hold a body part in a static position

Justification: It is needed in a rugby scrum because the players need to push against the opposition for the scrum half to get possession of the ball. The static strength creates a force against the opponents, forcing them to collapse the scrum. Therefore, it is also needed by the players of both teams to remain on their feet and not allow their knees to touch the floor.

Marks: **[4]**

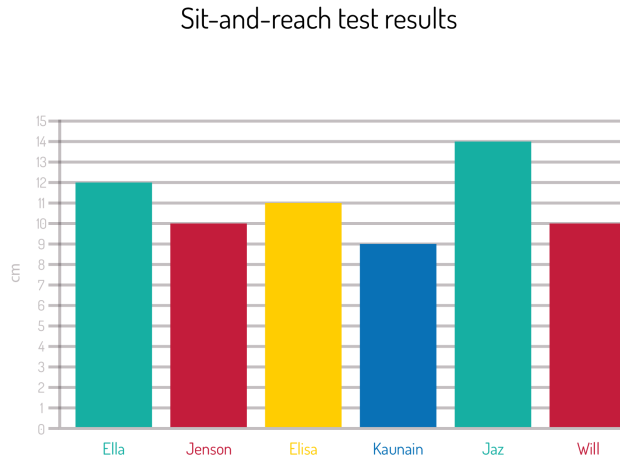
12. Describe the test protocol for a fitness test used to measure **maximal** strength.

Select an exercise with either a resistance machine or free weights, such as the bench press. Choose a weight to complete one repetition, until a weight is found where the performer can only complete one repetition and no more. This is called a one rep max.

Marks: **[3]**

13. This image shows the results from the sit-and-reach fitness test from a group of experienced dancers.

Using the data, identify the highest and lowest scoring dancer **and** the average sit-and-reach fitness test score for the group."



Highest test score: Highest test score is Jaz

Lowest test score: Lowest test score is Kaunain

Average score for the group: The average score is 11cm

Marks: **[3]**

14. State **three** limitations of using the sit-and-reach fitness test for an experienced dancer.

1: The test is only specific to testing hamstring flexibility.

2: The test does not replicate all movements in a dance routine.

3: The test is subject to human error.

Marks: **[3]**

15. Explain how a dancer is able to remain injury-free through the use of **three** different injury prevention methods.

Prevention 1: The dancer can prevent injury by completing a warm-up. This will increase muscle temperature and ensure muscles do not get strained.

Prevention 2: The dancer can also focus on using good technique in each dance move. This will ensure they do not put unnecessary pressure on joints when landing or leaping.

Prevention 3: The dancer can also ensure they keep hydrated. This will ensure they do not become light-headed or nauseous whilst dancing.

Marks: **[3]**

16. Describe the pathway that air follows during inhalation.

The air enters through the nose and mouth. It then travels down the trachea. From here, the trachea divides into bronchi to direct air into each lung. The bronchi further divide into bronchioles. Air travels down the bronchioles and reaches the alveoli for gaseous exchange to occur.

Marks: **[5]**

17. Explain how both preseason **and** postseason training can benefit a football player.



Pre-season training allows the footballer to improve specific fitness components relevant to their position. A player might complete continuous training as part of pre-season training in order to improve cardiovascular fitness to meet the demands of a 90-minute match.

Post-season training can benefit a footballer by assisting in maintaining fitness levels ready for the next season. Post-season training will often involve training at a lower intensity than preseason, allowing the player's body to recover and rest from the demands of the season completed.

Marks: **[4]**

18. Define eccentric muscle contraction.

Use an example of a sporting action in your answer.

Definition: Eccentric muscle contraction is when the muscle is contracting and lengthening to cause movement at a joint.

Sporting example: An example of this is the quadriceps eccentrically contracting during the downwards phase of a squat.

Marks: **[2]**

19. Name the tissue which transmits force from the muscles to the bones.

Tendons transmit force from muscle to bone.

Marks: **[1]**

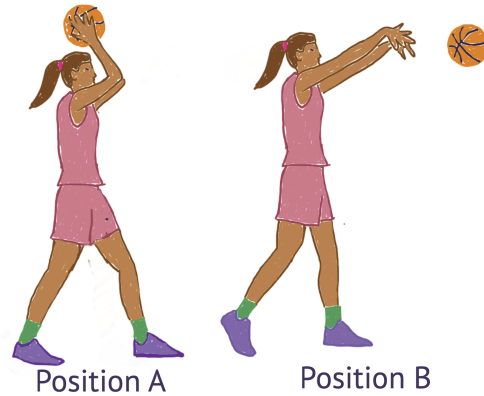
20. Discuss the effectiveness of plyometric training for a basketball player.



Plyometric training is effective for a basketball player, as it improves power in the legs to be able to jump high for a rebound. The bounding movements in plyometric training also replicate some skills in basketball, such as the approach in a lay-up shot. However, the nature and intensity of plyometrics means there is a high chance of injury, which may hinder the player's progress. Plyometrics also requires high levels of motivation, as it's an intense training method, so demotivated players may struggle to engage with plyometrics.

Marks: **[4]**

21. The image shows a basketball player performing an overhead pass. Identify the class of lever used at the **elbow** when performing the pass and **moving from position A to position B**.



First-class lever

Marks: [1]

22. The image shows the components of a lever. Identify how you would arrange the components to show the lever named in the previous question.



The arrow (effort) at one end above the line. The triangle (fulcrum) in the middle below the line. The load (square) at the other end above the line.

Marks: [3]

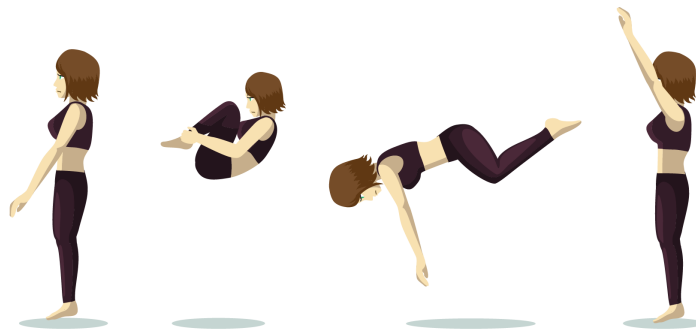
23. Describe the position of the effort **and** resistance arms for the lever in the previous question.

Effort arm: The effort arm is the distance between the fulcrum and effort.

Resistance arm: The resistance arm is the distance between the fulcrum and load.

Marks: [2]

24. This image shows a tucked-back somersault. Identify **both** the plane of movement **and** the axis of rotation during the rotation.

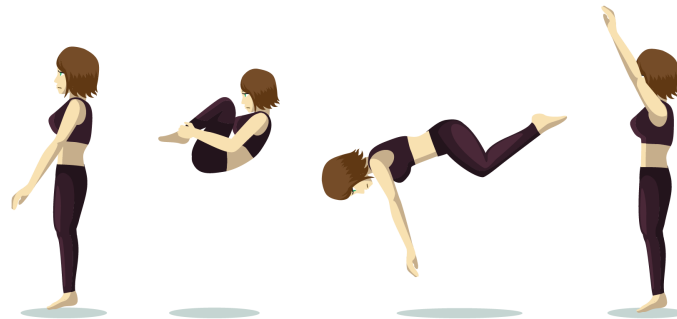


Plane: The somersault is moving in the sagittal plane

Axis: It is rotating around the transverse axis

Marks: [2]

25. Evaluate the importance of **power** when performing a tucked somersault.



Power in the legs is important when performing the somersault, as the performer will be able to jump higher, giving them more time in the air to complete the somersault before landing. Using power in the somersault will allow the performer to rotate easily in the air, making the skill look effortless and, therefore, scoring higher marks from the judges. Power is also required when thrusting the legs upwards into the tuck position. This will lead to greater speed in rotation. However, power is not the only fitness component required to complete a somersault successfully. It could be argued that high levels of flexibility and coordination are more important to complete the skill.

Marks: [4]

26. Define health **and** fitness.

Health: Health is a complete state of physical, social and mental well-being and being free from disease.

Fitness: Fitness is the ability to meet the demands of the environment.

Marks: [2]

27. Describe the likely impact of a person with ill health on their levels of fitness.

A person with ill health will not be able to train. This means the individual will have lower levels of fitness.

Marks: [2]

28. Review the image closely.
Complete the equation for cardiac output.

$$\text{Cardiac output} = \boxed{?} \times \boxed{?}$$

Cardiac output = Heart rate x Stroke volume

Marks: [2]

29. Justify the importance of both aerobic and anaerobic energy release within a **team** game.

Aerobic energy is released with the presence of oxygen. In a football match, aerobic energy is required in order to last the full 90 minutes of a game. If a player is able to do this, their skill levels will not deteriorate and they will be able to outwit opponents with less aerobic fitness. Aerobic respiration will also mean the player is able to reduce lactic acid build-up in the working muscles, allowing them to play for longer without muscle fatigue.

Anaerobic energy is released without the presence of oxygen. This is important during high intensity parts of a match, such as sprinting in a recovery run when the team loses possession. Anaerobic energy is also needed in explosive movements in football, such as taking a long throw-in.

Marks: [6]

30. Analyse the benefits of interval **and** weight training for a sprinter. Include reference to FITT in your answer.



A sprinter can use weight training and interval training to improve performance. Interval training is periods of high intensity exercise followed by periods of rest or low intensity exercise. This type of training is beneficial, as it replicates the high intensity of a sprint race. It is also useful as a training method, as it's easy and cheap to set up and can be completed on an athletics track. Interval training involves anaerobic exercise, which is also specific to sprinting. Weight training is useful, as it can be adapted to benefit the sprinter. For example, lifting high weights and low reps will increase muscle strength, which is needed for a powerful push out of the blocks and when in the drive phase of the race. This, in turn, will lead to quicker times and beating opponents out of the blocks. Weight training is also done at a high intensity and this replicates sprinting. An appropriate weight training programme for a sprinter to improve power would be lifting weights at 70% of one rep max. The FITT principle can be used to adapt both of these training methods. FITT stands for Frequency, Intensity, Time and Type. Interval training could be adjusted to be longer or shorter in duration, depending on the fitness levels of the sprinter. Intensity of training can be developed by decreasing the rest time between sets, when completing weight training. As the sprinter becomes fitter, the frequency of sessions included each week could increase. Lastly, both interval and weight training are specific to sprinting, so it could be argued these are the most appropriate types of training for the performer.

Marks: [9]

END OF PAPER