



The EverLearner

National Mock Exams 2024

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Mark Scheme IGCSE PE Paper

Please read before distributing to students.

Purpose of this document

This document and the associated question paper are based on the data analysis performed by The EverLearner Ltd and published within the 2024 infographics. Please, note the following:

- We believe this mark scheme has a very strong association with previous IGCSE PE exams in relation to command terms, skills, AO distribution, extended writing requirements and topics.
- However, this is categorically NOT a mark scheme for a predicted paper. No one can accurately predict an exam paper and we make no claim to this end.
- It is vital that you only use this document internally in your school/college. Publishing the document online or sharing it in any other way is strictly prohibited as this will undermine the potentially educational experiences of students in other schools/colleges.
- Finally, please check the publication dates of the model answers for this paper as well as the associated revision sessions in April.

This mark scheme contains:

- Copy of each question for reference
- Marking guidance where appropriate
- Marking points containing alternative acceptable responses plus relevant assessment objective

How should schools use this mark scheme?

The mark scheme has been constructed specifically for the exam paper used in The EverLearner's National Mock Exams from 2024. The model answers will be available in early April and many of these questions will be discussed in the live revision show provided by James Simms (Wednesday 24th of April, 15:00-16:30 on [youtube.com/TheEverLearner](https://www.youtube.com/TheEverLearner)).

All questions/mark schemes are available on ExamSimulator. Please note, there are hundreds of additional questions and mark schemes on ExamSimulator covering the IGCSE PE topics and skills. Within the platform, the teacher is assisted with the marking and full diagnostic feedback is also provided. 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	IGCSE PE 0413
Time allowed	1 hour 45 minutes

Title	IGCSE PE 9-1 and 0413 National Mock Exam 2024
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Guidance	<ul style="list-style-type: none">• This paper is relevant for both iGCSE PE 9-1 students and iGCSE PE 0413.• This paper is marked out of 100 marks.• You have 105 minutes (plus additional time for those who have Exam Access Arrangements).• Answer all questions.• A calculator is permitted for this exam.• Good luck.
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Total marks	100
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1. Look closely at this image. Which two lever classifications are represented?

Marking guidance

Answers must be associated with the correct image. For example, "lever A is a third-class lever" is wrong.

Marking points (maximum 2)

(1) [AO 1] Lever A is a first-class lever

(2) [AO 1] Lever B is a third-class lever

2. Look closely at this image. Name the three long bones that are labelled with letters A, B and C.

Marking points (maximum 3)

(1) [AO 1] Bone A is the humerus

(2) [AO 1] Bone B is the radius

(3) [AO 1] Bone C is the ulna

3. Describe the function of a long bone.

Marking points (maximum 1)

(1) [AO 1] Enable gross movement/Gross movement/Large movements

(2) [AO 1] Form levers with muscles and joints/Leverage

4. Identify the range of movement at a hinge joint.

Marking guidance

Answers must include the full range, and not just one type of movement. For example, "flexion to extension" is accepted, but "flexion" by itself is not.

Marking points (maximum 1)

(1) [AO 1] Flexion to extension

5. Identify the range of movement at a ball-and-socket joint.

Marking guidance

Answers must include the full range, and not just one type of movement. For example, "flexion to extension" is accepted, but "flexion" by itself is not.

Marking points (maximum 2)

- (1) [AO 1] Flexion to extension
- (2) [AO 1] Abduction to adduction

6. Describe three positive effects of exercise and fitness on social health.

Marking points (maximum 3)

- (1) [AO 1] Make new friends/Meet new people
- (2) [AO 1] Social mixing/Mixing with different cultures/Bring communities together
- (3) [AO 1] Developing communication skills
- (4) [AO 1] Playing with current friends/Seeing friends
- (5) [AO 1] Reduces loneliness/Increases feelings of belonging
- (6) [AO 1] Essential human needs are met
- (7) [AO 1] Having value within society

7. Describe the relationship between health and fitness.

Marking points (maximum 2)

- (1) [AO 1] Fitness can decrease due to ill health/Ill health can lead to an inability to train, which will impact fitness
- (2) [AO 1] High levels of fitness do not directly equate to good social health/High levels of fitness do not directly equate to good emotional health

8. Suggest two short-term effects of exercise.

Marking points (**maximum 2**)

- (1) [AO 1] Heart rate increases
- (2) [AO 1] Breathing rate increases
- (3) [AO 1] Red skin/Heat control/Sweating
- (4) [AO 1] Fatigue/Feeling tired
- (5) [AO 1] Suffering from nausea/feeling light-headed

9. Explain how the structure of the heart changes to improve efficiency as a result of long-term training.

Marking points (**maximum 6**)

- (1) [AO 1] Cardiac hypertrophy/Heart becomes stronger/Heart size increases
- (2) [AO 2] Stronger contractions
- (3) [AO 2] Leading to a decrease in resting heart rate/Leading to bradycardia
- (4) [AO 2] Increase in stroke volume
- (5) [AO 2] Increase in maximal cardiac output
- (6) [AO 2] Greater working heart-rate range

10. Look closely at this image. Identify feature A **and** feature B.

Marking points (**maximum 2**)

- (1) [AO 1] A is an alveolus
- (2) [AO 1] B is a capillary

11. Describe gaseous exchange at the lung.

Marking points (maximum 2)

- (1) [AO 1] Takes place through diffusion/Diffusion of gases/Movement of gases from high to low pressure
- (2) [AO 1] Oxygen concentration in the alveoli is higher than in the capillaries/Oxygen concentration is higher in the alveoli/Oxygen concentration is high in the alveoli
- (3) [AO 1] Oxygen moves into the capillaries down the concentration gradient/Oxygen diffuses into the capillaries down the concentration gradient/Gases move down the concentration gradient
- (4) [AO 1] Carbon dioxide concentration in the capillaries is higher than in the alveoli/Carbon dioxide concentration is higher in the capillaries/Carbon dioxide concentration is high in the capillaries
- (5) [AO 1] Carbon dioxide moves into the alveoli down the concentration gradient/Carbon dioxide diffuses into the alveoli down the concentration gradient/Down the concentration gradient

12. Describe a characteristic of a capillary that helps gaseous exchange.

Marking points (maximum 1)

- (1) [AO 1] Short diffusion pathway/Thin walls/One-cell thick
- (2) [AO 1] Lots of capillaries/Lots of capillaries around the alveoli/High capillary density
- (3) [AO 1] Large blood supply/Continual supply of blood

13. Suggest **three** outcomes of overarousal for a sports performer.

Marking points (maximum 3)

- (1) [AO 1] Panic/Stress
- (2) [AO 1] Performer may miss relevant information/Poor selective attention/Narrow attention
- (3) [AO 1] Decrease in performance quality/Play worse

14. Using this graph to support your answer, identify the impact of gender on participation in physical activity in Wiggleton-by-Sea.

Marking points (**maximum 6**)

(1) [AO 2] Attitudes to female activity might be different/Less positive attitude to female sport/Female sport is valued less than male sport

(2) [AO 2] Fewer female role models than male/Female role models are less visible/Lack of female role models

(3) [AO 2] There are differences in accessibility/Fewer female clubs/Fewer female activities

(4) [AO 2] Less female media coverage/Fewer females see people like them in the media/Less media coverage

(5) [AO 2] Females may experience stereotypes/Gender stereotypes such as "tomboys"/Sexism towards female participation

(6) [AO 2] Females may have more family commitments/Females often perform the "double shift"/Females have more domestic responsibilities

(7) [AO 2] Females may have less available leisure time/Females may have less free time/Less leisure time

(8) [AO 2] Females may have less disposable income to spend on activity/Females may have to spend more of their money on day-to-day expenses/Females have access to less disposable income on average

15. Suggest reasons why a sports performer may take anabolic steroids.

Marking points (**maximum 3**)

(1) [AO 1] Increases muscle mass/Increases muscle size/Muscular hypertrophy

(2) [AO 1] Lets athletes train for longer/Train for longer

(3) [AO 1] Lets athletes train harder/Train harder

(4) [AO 1] Increases power/Power/Strength

(5) [AO 1] Speeds up recovery/Recovery

16. Suggest **four** reasons for anabolic steroids being prohibited in sport.

Marking points (**maximum 4**)

- (1) [AO 2] Illegal drugs/Prescription drugs/Illegal street drugs
- (2) [AO 2] Damaging to health when taken in large doses/Damage health
- (3) [AO 2] Create an unfair advantage
- (4) [AO 2] Cheating/Deviant behaviours/Deviance
- (5) [AO 2] Bad role model for children/Sets a bad example
- (6) [AO 2] Leads to mistrust of the sport/Damaged reputation

17. Describe the process of blood doping.

Marking points (**maximum 3**)

- (1) [AO 1] Removal of blood a few weeks before competition/Blood collected weeks before competition/Blood extracted well before competition
- (2) [AO 1] Blood is frozen/Kept in deep freeze/Frozen
- (3) [AO 1] Blood is carefully thawed/Carefully thawed out/Thawed
- (4) [AO 1] Blood is reinjected before competition/Reinjected the day of competition/Reinjected shortly before competing

18. Justify why a combination of verbal and visual guidance is advantageous for novice performers.

Marking points (**maximum 1**)

- (1) [AO 2] Visual guidance can use a demonstration alongside highlighting the key teaching points/Can both show and tell the performers the correct technique
- (2) [AO 1] Novice performers are beginners, so cannot yet visualise the skill without seeing it and need to hear the important coaching points to look out for

19. Describe and give a sporting example of mechanical guidance.

Marking points **(maximum 2)**

(1) [AO 1] Mechanical guidance uses equipment to support the correct technique/Mechanical guidance uses equipment to support learning/A physical aid is used to support learning

(2) [AO 2] Rig in trampolining/Scrum machine in rugby/Automatic ball machine in cricket

20. Define speed.

Marking points **(maximum 1)**

(1) [AO 1] Maximum rate at which an individual is able to cover a distance or perform a movement in a period of time

21. Describe the relative importance of speed for the following performers.

Marking points **(maximum 6)**

(1) [AO 1] Weightlifters need speed to generate power/Speed is important to create power for weightlifters/Speed is needed to combine with strength to create power

(2) [AO 2] Power is needed to be able to generate the force to lift the heavy weight

(3) [AO 1] Squash players need speed to quickly cross the court to reach the ball/Speed is needed to move around the court to return the ball

(4) [AO 2] If a squash player doesn't return the ball, then they will lose the point/If a squash player doesn't fully reach the ball, then they won't be able to hit with the correct technique

(5) [AO 1] Marathon runners need speed in order to overtake/Speed is needed in marathon running to get a good start/Speed is needed for sprint finishes in marathon running

(6) [AO 2] Speed is not as important as cardiovascular fitness for marathon running due to the length of the event

22. Explain the reasons for fitness testing.

Marking points (**maximum 2**)

- (1) [AO 2] Suitability for different physical activities
- (2) [AO 2] Identifying strengths and weaknesses/Assessing baseline fitness
- (3) [AO 2] Monitoring improvement/Checking effectiveness of training programme
- (4) [AO 2] Comparison to others/Compare to normative data
- (5) [AO 2] Informing the design of a training programme/Supports training planning
- (6) [AO 2] Motivation/Improves training plan adherence

23. Describe the sit-and-reach test protocol.

Marking points (**maximum 2**)

- (1) [AO 1] Remove shoes/Bare feet/No shoes
- (2) [AO 1] Sit on floor with legs straight out/Knees flat on floor/Straight legs
- (3) [AO 1] Soles of the feet on the box/Feet against the sit-and-reach box/Feet flat against the box
- (4) [AO 1] Bench and ruler as an alternative/Bench and ruler
- (5) [AO 1] Reach forward with one hand on top of the other/Reach forward with one hand above the other/Stretch forward with one hand on top of the other
- (6) [AO 1] Stretch as far as possible/Reach as far as possible
- (7) [AO 1] Hold for two seconds/Two seconds
- (8) [AO 1] No jerking movements/No bouncing/Not ballistic
- (9) [AO 1] Distance reached is measured/Distance measured in centimetres/Distance measured in cm

24. Explain why VO₂max is an important measure of stamina.

Marking points (**maximum 4**)

- (1) [AO 2] Because it is relative
- (2) [AO 2] Because it is measured in ml.kg.min
- (3) [AO 2] Because it is a direct measure of oxygen usage
- (4) [AO 2] Because muscles need oxygen for aerobic respiration
- (5) [AO 2] Because the heart must provide force to deliver oxygen to the muscles

25. Describe the differences and similarities between skill and ability.

Marking points (**maximum 6**)

- (1) [AO 1] Skill is learned
- (2) [AO 1] Skill is developed through experience
- (3) [AO 1] Skill is based upon abilities
- (4) [AO 1] Ability is innate
- (5) [AO 1] Ability is genetic
- (6) [AO 1] Ability is predetermined

26. Justify why a tennis serve is not a fully closed skill.

Marking points (**maximum 2**)

- (1) [AO 2] Change in wind direction will lead to last-minute adjustments
- (2) [AO 2] Crowd screaming out at the moment of serve could be a distraction
- (3) [AO 2] Opponent moves position, therefore serve direction might need to be changed

27. Describe each stage of the simple information processing model.

Marking points **(maximum 4)**

- (1) [AO 1] Input - Internal and external information
- (2) [AO 1] Decision making - Attending to relevant information and selecting a response
- (3) [AO 1] Output - Neural and muscular response
- (4) [AO 1] Feedback - Feeling and outcome of the skill

28. Define the following terms:

- Leisure time
- Physical recreation
- Play
- Sport

Marking points **(maximum 4)**

- (1) [AO 1] Time away from work or chores/Free time without other commitments
- (2) [AO 1] Voluntary physical activity done in leisure time/Voluntary physical activity/Done in leisure time
- (3) [AO 1] A non-serious activity done for enjoyment/A non-serious activity/Done for enjoyment
- (4) [AO 1] A competitive, rule-based activity/A competitive activity that follows specific rules/A competitive activity done at an agreed time in an agreed space

29. Look closely at this image. Name section A **and** section B of the sports development pyramid.

Marking guidance

Accept answers when they are correctly associated with the correct label. For example, "A is performance" is wrong.

Marking points **(maximum 2)**

- (1) [AO 1] A is excellence/A is elite
- (2) [AO 1] B is performance

30. Look at this image and identify the highlighted muscle.

Marking points **(maximum 1)**

(1) [AO 1] Quadriceps

31. Explain the antagonistic muscle action.

Marking points **(maximum 2)**

(1) [AO 1] Muscles work in pairs

(2) [AO 1] Muscles can only pull

(3) [AO 1] Agonist is the working muscle/Agonist contracts/Agonist produces the movement

(4) [AO 1] Antagonist works to counter the prime mover

(5) [AO 1] Antagonist relaxes/Antagonist shortens

32. Describe how the muscles in the arm work together to create flexion at the elbow.

Marking guidance

Accept one mark.

Marking points **(maximum 2)**

(1) [AO 1] Agonist is the biceps, which contract and shorten

(2) [AO 1] Antagonist is the triceps, which relax and lengthen

33. Explain why a balanced diet is important to health.

Marking points (**maximum 4**)

(1) [AO 2] Lots of different types of food/Wide variety of foods/Different types of food

(2) [AO 2] Contains all the nutrients required/Right balance of carbohydrates, fats and proteins/Enough carbohydrates, fats and protein

(3) [AO 2] Includes plenty of vitamins and minerals/Sufficient vitamins and minerals/Vitamins and minerals

(4) [AO 2] Right balance of energy intake/Right number of calories

34. Define aerobic respiration.

Marking points (**maximum 1**)

(1) [AO 1] Glucose + Oxygen = Energy + Carbon dioxide + Water/Glucose + Oxygen goes to Energy + Carbon dioxide + Water/In the presence of oxygen

35. Justify the importance of a cool-down after a rugby match.

Marking points (**maximum 2**)

(1) [AO 1] To gradually reduce heart rate/Gradually reduce heart rate

(2) [AO 1] Removal of waste products/Removal of lactic acid/Removal of carbon dioxide

(3) [AO 1] To repay oxygen debt/Oxygen debt

36. Continuous training is often used by cross-country runners. Suggest **two** further methods of training a cross-country runner might benefit from.

Marking guidance

Do not accept reference to plyometric training.

Marking points (maximum 2)

- (1) [AO 1] Fartlek training
- (2) [AO 1] Interval training/HIIT
- (3) [AO 1] Weight training
- (4) [AO 1] Circuit training

37. Describe two advantages **and** two disadvantages of plyometric training.

Marking guidance

Sub max two marks for advantages and sub max two marks for disadvantages.

Marking points (maximum 4)

- (1) [AO 2] Excellent method for developing power
- (2) [AO 2] Many exercises require little or no equipment/Requires little or no equipment/Little equipment
- (3) [AO 2] It is a short, high-intensity work out/Doesn't take long/High intensity
- (4) [AO 2] Simulates movements from sport/Similar to movements in sport/Similar movements
- (5) [AO 2] Need lots of recovery time/Need recovery time/Can't do too many sessions
- (6) [AO 2] Must have good levels of strength and muscular endurance/Must have strength/Must have muscular endurance
- (7) [AO 2] Stress on the joints and muscle soreness/Stress on the joints/Muscle soreness