The EverLearner

National Mock Exams 2024

POWERED BY ExamSimulator

Mark Scheme
OCR A-level PE - Paper 1

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 OCR A-Level PE Paper 1 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/May/June.

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 (**Monday 29th of April, 15:00-16:30** on 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

The EverLearner

Subject	Physical Education
Course	OCR Linear GCE PE Paper 1: Physiological Factors
Time allowed	2 hours

First name	
Last name	
Class	
Teacher	

Title	OCR A-level (H555) Paper 1: Physiological Factors National Mock Exam 2024

Guidance	• This paper is marked out of 90 marks. • You have 120 minutes (plus additional time for those who have Exam Access Arrangements). • Answer all questions. • A calculator is permitted for this exam. • This paper contains one 20-mark question. • Good luck.

Total marks	90

1. Identify **two** functions of protein in a balanced diet.

Marking points **(maximum 2)**

(1) [AO 1] Growth/Growth of cells/Growth of body tissue

(2) [AO 1] Repair/Repair of body tissue

(3) [AO 1] Form muscle tissue/Form muscle

(4) [AO 1] Form hormones/Hormone formation

(5) [AO 1] Form enzymes

(6) [AO 1] Form haemoglobin

(7) [AO 1] Broken down into amino acids/Amino acids/Broken down to produce amino acids

2. Explain why a table tennis player may use caffeine as a nutritional ergogenic aid.

Marking points **(maximum 2)**

(1) [AO 2] Increased alertness to anticipate which way the ball is going to travel during a rally

(2) [AO 2] Decreased reaction time to react to a powerful shot and return the ball

(3) [AO 2] Increased fat metabolism to maintain optimum weight/Body shape for table tennis

(4) [AO 2] Assists in preservation of glycogen for energy during a match

(5) [AO 2] Increases activity of the central nervous system

3. Identify **two** sporting activities where a high percentage of fast oxidative glycolytic muscle fibres would be beneficial.

Marking guidance

Accept other suitable examples.

Marking points **(maximum 2)**

(1) [AO 2] 800m running/1500m running/Middle distance running

(2) [AO 2] 200m freestyle/Butterfly/Breaststroke

(3) [AO 2] 1km cycling/2km cycling/3km cycling

(4) [AO 2] High press in football

(5) [AO 2] Full court press in basketball

(6) [AO 2] Multiple phases of play in a rugby game

4. Using a sporting example, describe what is meant by tapering.

Marking guidance

Accept other suitable examples of tapering.

Marking points **(maximum 2)**

(1) [AO 1] Maintaining intensity but reducing the volume of training to prepare for competition

(2) [AO 2] A runner will reduce the number of training miles completed by a third per week during the tapering period

(3) [AO 2] A cyclist will reduce the number of kilometres completed per week by a third in the tapering period

(4) [AO 2] A rugby player will reduce the number of training sessions completed per week by a third in the tapering period

5. Stability is defined as "the ability of the body to remain in a balanced position". Describe factors that affect stability.

Marking points **(maximum 2)**

(1) [AO 1] Mass

(2) [AO 1] Height of the centre of mass/Centre of mass

(3) [AO 1] Base of support/Size of base of support

(4) [AO 1] Line of gravity

(5) [AO 1] Points of contact

6. Complete the table to analyse the press-up action at the elbow.
Ensure your responses are correctly linked to the relevant letter in your answer.

Marking guidance

Mark the first answer for each letter/space only.

Only accept answers correctly linked to the relevant letter. For example, do not accept "A is flexion."

Marking points **(maximum 6)**

(1) [AO 3] A is elbow extension/A is extension/A extension

(2) [AO 3] B is the triceps brachii/B triceps brachii/B are the triceps brachii

(3) [AO 3] C is isotonic concentric/C is concentric/C concentric

(4) [AO 3] D is elbow flexion/D is flexion/D flexion

(5) [AO 3] E is the triceps brachii/E triceps brachii/E are the triceps brachii

(6) [AO 3] F is isotonic eccentric/F is eccentric/F eccentric

7. Explain how venous return mechanisms assist in the return of blood back to the heart.

Marking guidance

No marks for stating the mechanisms. The student must explain how each mechanism assists venous return.

Marking points **(maximum 5)**

(1) [AO 1] Skeletal muscle pump squeezes veins and increases pressure/Muscle pump squeezes on the veins forcing blood upwards/Skeletal muscle pump squeezes

(2) [AO 1] Gravity forces blood downwards from the upper body/Gravity can be used if the performer raises their legs/Gravity applies weight force to the blood

(3) [AO 1] Respiratory pump uses pressure differences in the thoracic cavity to aid the movement of blood/Pressure in the chest cavity moves the blood/Respiratory pump is useful for the final part of the journey

(4) [AO 1] Pocket valves in veins prevent backflow of blood during diastole/Pocket valves prevent backflow/Valves in veins keep blood moving in one direction only

(5) [AO 1] Smooth muscle around veins pulses to increase pressure in the vein/Smooth muscle squeezes on the vein/Smooth muscle constricts and dilates squeezing blood back

8. Describe the ATP- PC energy system.

Marking points **(maximum 6)**

(1) [AO 1] PC breakdown releases energy/Releases energy/High energy bond is broken

(2) [AO 1] Energy is used to resynthesize ATP/Resynthesize ATP/Energy + ADP + P = ATP

(3) [AO 1] Using coupled reactions/Coupled reactions/Endothermic and exothermic reactions

(4) [AO 1] Reaction takes place without oxygen/Reaction without oxygen/Anaerobic reaction

(5) [AO 1] The enzyme is creatine kinase/Enzyme creatine kinase/Creatine kinase

(6) [AO 1] Reactions take place in the sarcoplasm/Sarcoplasm

(7) [AO 1] 1 ATP per PC/1 ATP 1 PC/1:1 energy yield

(8) [AO 1] Used during high-intensity activity/During high-intensity exercise/During intense activity

9. Explain why a coach would encourage an endurance athlete to attend a high altitude training camp.

Marking points **(maximum 3)**

(1) [AO 2] Allows athlete to acclimatise to conditions/Acclimatisation/Period of acclimatisation

(2) [AO 2] Minimise the impact of decreased partial pressure of oxygen/pO₂

(3) [AO 2] Increased release of erythropoietin/Increase in red blood cell production/Increase in concentration of red blood cells to make oxygen transport more efficient

(4) [AO 2] Altitude training helps to stabilise breathing rate and ventilation after acclimatisation

(5) [AO 2] Oxygen extraction becomes more efficient/Oxygen extraction efficiency leads to lower stroke volume/Cardiac output

(6) [AO 2] Reduces chances of altitude sickness/Reduces chances of becoming unwell/Reduces chance of breathlessness

10. Dynamic flexibility and maximum strength are both fitness components important in sport. Describe a sporting situation where **each** would be used.

Marking guidance

Accept other suitable examples.

Marking points **(maximum 2)**

(1) [AO 2] Dynamic flexibility is needed at the shoulder when throwing a javelin/When a dancer performs a split leap/During the bowling action in cricket

(2) [AO 2] Maximum strength is needed when performing a deadlift in weightlifting/When throwing an opponent in judo/When pushing in a rugby scrum

11. Identify **three** tests which assess aerobic capacity.

Marking guidance

Do not accept "Cooper run" on its own. There must be reference to 12 minutes. Do not accept "beep test" or "bleep test" for multi-stage fitness test.

Marking points **(maximum 3)**

(1) [AO 1] Cooper 12 minute run/12 minute run

(2) [AO 1] Queen's College step test

(3) [AO 1] Multi-stage fitness test/NCF multi-stage fitness test/Multi stage fitness test

(4) [AO 1] Direct gas analysis/Gas analysis/VO2 max test using direct gas analysis

12. Evaluate the use of continuous training as part of a training programme for a triathlete.

Marking guidance

Sub max three marks for positives of continuous training. Sub max three marks for negatives of continuous training.

Marking points **(maximum 4)**

(1) [AO 3] Continuous training is simple/Basic/Easy to set up

(2) [AO 3] Continuous training is easily available for performers/Available without needing complex facility to train in

(3) [AO 3] Performer can use continuous training regardless of current fitness levels/Suits all fitness levels/Suits training after an injury lay-off

(4) [AO 3] Continuous training is specific for triathlon/Specific to all three disciplines for triathlon/Specific for different parts of triathlon

(5) [AO 3] Effective for improving aerobic capacity/Endurance/Cardiovascular endurance

(6) [AO 3] Continuous training can be tedious/Boring/Too repetitive

(7) [AO 3] Time consuming/Takes too long/Not time-efficient

(8) [AO 3] Has a detrimental effect on speed/Doesn't help speed/Speed is also needed in triathlon and continuous training can hinder this

(9) [AO 3] Can cause chronic injury/Cause injury/Cause performer to stop training due to injury

13. Describe the process of glycogen loading.
Evaluate the effectiveness of glycogen loading as an ergogenic aid.

Marking guidance

Sub max two marks for AO1 description. Sub max three marks for AO3 evaluation.

Evaluation must contain both positive and negatives of glycogen loading for marks to be credited. The description of glycogen loading should give some reference to time frame for the process.

Marking points **(maximum 5)**

(1) [AO 1] Manipulation of carbohydrate intake in the week before competition/Manipulation of amount of carbohydrate prior to competition/Change the amount of carbohydrate intake a week prior to competition

(2) [AO 1] Day 1 glycogen depleting bout of endurance exercise/Depleted glycogen stores through endurance exercise/Endurance exercise to deplete glycogen

(3) [AO 1] Day 2-3 high protein/High fat diet/Diet high in fat

(4) [AO 1] Day 4 glycogen depleting bout of endurance exercise/Depleted glycogen stores through endurance exercise/Endurance exercise depletes glycogen

(5) [AO 1] Days 5-7 high carbohydrate diet/Consume high amounts of carbohydrate/Increase carbohydrate intake

(6) [AO 1] Day 5-7 training reduced/Tapering/Rest

(7) [AO 3] Glycogen loading leads to 50% greater glycogen stores/Large increase in glycogen stores/Increases glycogen stores

(8) [AO 3] Takes longer to reach exhaustion/Can exercise for longer before exhaustion/Increase time to exhaustion

(9) [AO 3] Delays fatigue/More resistant to fatigue/Reduces rate of fatiguing

(10) [AO 3] Risk of hypoglycaemia/Hypoglycaemia can occur/Risk of hypoglycaemia in depletion phase

(11) [AO 3] Causes lethargy/Cause tiredness/Cause sluggishness

(12) [AO 3] Causes irritability/Causes anger/Causes rage

(13) [AO 3] Gastrointestinal problems/Problems with intestines

(14) [AO 3] Causes water retention/Water retention/ Hold water

(15) [AO 3] Can affect mental preparation/Affect mental state/Affect mindset

14. Name and describe two types of fracture that could occur when playing sport. Give sporting examples of the possible cause of each type of fracture.

Marking guidance

Award sub max two marks for each correctly named fracture. Award sub max two marks for each correct description. Award sub max two marks for each relevant example of how a fracture could occur. Accept any other suitable examples of how fractures could occur. Examples should describe a specific action within the sport, such as "trippin" or "falling" and should reference on which bone or part of the body the fracture could occur. Naming the sport only is too vague and should not be credited.

Marking points **(maximum 6)**

(1) [AO 1] A compound fracture is where the fractured bone breaks through the skin/An open fracture is where the fractured bone punctures the skin/An open fracture is where the skin is broken and increases the risk of an infection

(2) [AO 1] A simple fracture is where the skin remains unbroken/A closed fracture is where the skin is not punctured/A simple fracture is where there is no breaking of the skin

(3) [AO 1] Incomplete fracture is where there is a partial crack/Incomplete fracture is where the bone doesn't completely separate/Incomplete fracture is a tiny crack in the bone

(4) [AO 1] Complete fracture is where the bone separates/Complete fracture is where the bone breaks into fragments/Complete fracture is where there is a total break

(5) [AO 1] Greenstick fracture is a splitting partial break/Greenstick fracture is a result of a bending motion/Greenstick fracture is a splitting break

(6) [AO 1] Transverse fracture is a perpendicular crack/Transverse fracture/Transverse

(7) [AO 1] Oblique fracture is a diagonal fracture/Oblique diagonal/Oblique

(8) [AO 1] Spiral fracture is a twisting fracture/Spiral twisting/Spiral

(9) [AO 1] Comminuted fracture is a crack which produces multiple fragments/Comminuted fracture is the bone in multiple fragments/Comminuted fracture is a crack producing many fragments

(10) [AO 1] Impacted fracture is a break when the two ends are compressed/Impacted is when the two ends are pushed together/Impacted caused by end-to-end compression

(11) [AO 1] Avulsion fraction is bone detached from connective tissue/Avulsion is connective tissue causing bone detachment/Bone detaches from connective tissue is avulsion

(12) [AO 2] A dangerous high tackle in football could lead to a leg fracture/A dangerous high tackle could lead to a femur fracture/ A dangerous high tackle could lead to a tibia fracture

(13) [AO 2] Stamping on an opponent's arm during a ruck in rugby could lead to an arm fracture/Stamping on an opponent's arm during a ruck in rugby could lead to a radius fracture/Stamping on an opponent's arm during a ruck in rugby could lead to an ulna fracture

(14) [AO 2] Punching someone in the head in a boxing match could lead to a skull fracture

(15) [AO 2] Trying to catch a hard-hit cricket ball could lead to a fractured bone in the hand/Trying to catch a hard-hit cricket ball could lead to a fractured bone in the phalanges/Trying to catch a hard-hit cricket ball could lead to a fractured bone in the metacarpals

(16) [AO 2] Falling off a bike in road cycling could lead to fracturing your ribs/Falling off a bike in road cycling could lead to fracturing your sternum/Falling off a bike in road cycling could lead to fracturing your clavicle

(17) [AO 2] Tripping on the goal post in netball could lead to fracturing a bone in your toes/Tripping on the goal post in netball could lead to fracturing a bone in your phalanges/Tripping on the goal post in netball could lead to fracturing a bone in your metatarsals

(18) [AO 2] Falling from a horse during an equestrian event could lead to a pelvic fracture

15. Look closely at this image. Explain how Newton's three laws of motion could be applied to the footballer when taking a shot.

Marking guidance

Sub max two marks for each of Newton's laws. Therefore, all three laws must be mentioned to gain full marks. Accept any other suitable examples that are related to the shooting action.

Marking points **(maximum 6)**

(1) [AO 2] Newton's first law: The ball will remain in a state of rest until an external force is applied to it/Ball will remain still until the player applies force by kicking it/Ball will remain at rest until the player kicks it

(2) [AO 2] Newton's first law: Ball willl not accelerate towards goal until a force acts upon it/Ball will not move towards goal until the player kicks it

(3) [AO 2] Newton's first law: Once ball is at a constant velocity it will remain this way until a force acts upon it/The ball's constant velocity will be affected by unbalanced force/External force

(4) [AO 2] Newton's second law: Acceleration of the ball towards the goal is dependent on the size of the force applied to it/How hard the player kicks it/Rate of change of momentum of the ball depends on how hard the player kicks it

(5) [AO 2] Newton's second law: If the player applies force through the middle of the ball, it will accelerate quickly towards goal/Ball will travel quickly towards goal if player contacts the middle of the ball as force is applied in a forward direction

(6) [AO 2] Newton's second law: If the player applies curl or spin by kicking the side or bottom of the ball, the momentum of the ball towards goal will be slower/Newton's second law: If the player applies curl or spin by kicking the side or bottom of the ball, the acceleration of the ball towards goal will be slower

(7) [AO 2] Newton's third law: When the player plants their foot next to the ball, a downward force is applied. The ground applies an equal and opposite upward reaction force

(8) [AO 2] Newton's third law: If the ball hits the post an equal and opposite reaction force is applied to the ball and it rebounds back/Newton's third law: If the ball hits the crossbar an equal and opposite reaction force is applied to the ball and it rebounds back/Newton's third

law: If the ball hits the post an equal and opposite reaction force is applied to the ball and it bounces back

(9) [AO 2] Newton's third law: If the ball is saved by the goalkeeper, an equal and opposite reaction is applied by the reaction force of the ball rebounding off the goalkeeper

(10) [AO 3] If the player applies a forward force to the ball when kicking it, the ball applies an equal and opposite downward reaction force to the player's foot/If the player applies a forward force to the ball when kicking it, the ball applies an equal and opposite backward reaction force to the player's foot/If the player applies a upward force to the ball when kicking it, the ball applies an equal and opposite backward reaction force to the player's foot

16. Explain how a tennis player creates topspin on the ball when playing a forehand shot.

Marking guidance

Only credit responses explaining how topspin is produced. Do not credit for backspin or side spin.

Marking points **(maximum 4)**

(1) [AO 2] Applies an off-centre force to the ball/Eccentric force/Applies torque above the centre of the ball

(2) [AO 2] Causes the ball to spin forwards around the transverse axis/Ball spins forwards during flight

(3) [AO 2] Airflow decreases above the ball/Air moves more slowly above the ball/Slower moving air above the ball

(4) [AO 2] High-pressure zone/High pressure/High air pressure above the ball

(5) [AO 2] Increased air flow below the ball/Air moves faster below the ball/Slow moving air below the ball

(6) [AO 2] Low pressure zone/Low pressure/Low air pressure below the ball

(7) [AO 2] Pressure gradient /Pressure differential/Pressure difference

(8) [AO 2] Magnus force downwards/Magnus force created/Magnus force

(9) [AO 2] Ball has a reduced flight path/Asymmetrical flight path/Non-parabolic flight path

17. Identify **two** factors that affect the magnitude of drag acting on a body moving through water.

Marking points **(maximum 2)**

(1) [AO 1] Velocity

(2) [AO 1] Frontal cross-sectional area

(3) [AO 1] Streamlining/Shape/Aerodynamic shape

(4) [AO 1] Surface characteristics/Smoothness of the surface

18. For a sport of your choice, describe a piece of biomechanical technology that is used to analyse performance.

Marking guidance

Award a maximum of one mark for description of biomechanical equipment, and a maximum of one mark for the example.

Marking points **(maximum 2)**

(1) [AO 1] Limb kinematics is 2D modelling of human movement/Motion analysis of movement/Video analysis of movement

(2) [AO 2] An example of limb kinematics is mapping knee motion for a sprinter/Mapping throwing action for a javelin thrower/Mapping joint angles when hurdling

(3) [AO 1] Wind tunnels are for measuring aerodynamic properties/Measuring aerodynamics/Measuring air resistance and drag

(4) [AO 2] Measuring the drag of a new design of a road bike/Measuring drag of a F1 car/Measuring air resistance of a ski jumper's suit

(5) [AO 1] Force plates are metal, rectangular plates which measure the size and direction of forces acting on an athlete/Plates in the floor which measure the forces on an athlete/Plates which give immediate graphical readings of forces acting on an athlete

(6) [AO 2] An example of using forces plates is to assess the force produced for a basketball player in a jumping motion for a rebound/Force produced by a gymnast balancing on one foot/Force produced by a sprinter when their foot hits the floor in their running action

19. Explain why a hard-hit shuttlecock follows a non-parabolic flight path.

Marking points **(maximum 2)**

(1) [AO 3] Shuttlecock travels very fast and has a high air resistance/High velocity causes high air resistance/Long air resistance vector because of high speed

(2) [AO 3] Shuttlecock has a large relative cross-sectional area so has a high air resistance/Large cross-sectional area so high air resistance

(3) [AO 3] Shuttlecock has rough surface characteristics so a high air resistance/Rough surface causes air resistance/Wood and glue are rough and cause air resistance

(4) [AO 3] Shuttlecock is not streamlined, so it has a high air resistance/Lack of streamlined shape means high air resistance/Broad shape is not streamlined and has high air resistance

(5) [AO 3] Shuttlecock is very light so the air resistance is dominant/Low mass means air resistance is dominant/Low weight force means air resistance is dominant

(6) [AO 3] Flight path is shortened because of high air resistance/Travels less horizontal distance/Shortened flight path

20. Look closely at this image. Explain how the ice skater manipulates their body shape to spin on the ice.

Marking points **(maximum 4)**

(1) [AO 2] Bringing arms and legs closer to the longitudinal axis/Making body mass smaller increases their spin rate

(2) [AO 2] Ice skater tucking arms in and bringing legs together reduces their moment of inertia/Decrease moment of inertia

(3) [AO 2] Ice skater tucking arms and bringing legs together in increases angular velocity

(4) [AO 2] Tucking arms in and bringing legs together results in a greater amount of rotation around the longitudinal axis/Increase amount of rotation

21. Analyse the regulation of heart rate during exercise.
Describe the different types of cardiovascular disease that could occur as a result of long-term physical inactivity.

Marking guidance

20-mark descriptions

Marking points **(maximum 20)**

(1) [AO 1] Automatic nervous system determines the firing rate of the SA node/ANS determines SA node firing

(2) [AO 1] Cardiac control centre receives information from sensory nerves/CCC receives information from sensory nerves

(3) [AO 1] Three sources of information/Control/Three sources that determine action of CCC

(4) [AO 1] Neural control/Chemoreceptors/Proprioceptors

(5) [AO 1] Intrinsic control/Temperature change/Venous return changes

(6) [AO 1] Hormonal control

(7) [AO 2] Chemoreceptors located in muscles/Aorta/Carotid arteries

(8) [AO 2] Proprioceptors located in muscles/Tendons/Joints

(9) [AO 2] Baroreceptors in blood-vessel walls

(10) [AO 2] Hormonal control through release of adrenaline/Hormonal control through release of noradrenaline

(11) [AO 3] Neural factors are movement, blood pressure and blood chemistry/Movement, pressure and pH level/Muscle tension, blood pressure and tendon length

(12) [AO 3] Baroreceptors detect increases in blood pressure

(13) [AO 3] Chemoreceptors detect decrease in blood pH/Increase in blood acidity

(14) [AO 3] Proprioceptors detect movement/Mechanoreceptors detect changes in joint angles/Detect increased muscle tension

(15) [AO 3] Hormonal factors are the release of adrenaline/Adrenaline acts directly on the SA/Adrenaline stimulates the SA node

(16) [AO 3] Intrinsic factors are thermoreceptors in the heart detecting changes in temperature/Thermoreceptors detect change in temperature/Temperature of the heart

(17) [AO 3] Intrinsic factor is venous return changes, which affect stretch of ventricle walls/Stretch ventricle/Increase force of contraction

(18) [AO 3] Based on action-provided CCC actions either increase or decrease heart rate/Information provided leads to increase or decrease of heart rate

(19) [AO 3] Parasympathetic nervous system is actioned if heart rate needs to drop/Decrease

(20) [AO 3] Sympathetic nervous system is actioned if heart rate needs to increase

(21) [AO 2] Atherosclerosis

(22) [AO 2] Coronary heart disease/CHD

(23) [AO 2] Heart attack

(24) [AO 2] Stroke

(25) [AO 1] Atherosclerosis is the stiffening of artery walls/Thickening and hardening of artery walls/Loss of elasticity in the artery walls

(26) [AO 1] Leads to less blood flow to the vital organs/Reduces blood pressure and reduces blood flow/Leads to hypertension

(27) [AO 1] CHD results from atheroclerosis of coronary arteries that supply the heart with oxygenated blood/Supply heart with blood

(28) [AO 3] Reduction in blood flow and oxygen limits cardiac muscle ability to respire, which can result in heart attack/Heart attack is a consequence of CHD

(29) [AO 1] Heart attack is a result of a blood clot/Piece of fatty acid breaks away from arterial wall

(30) [AO 1] This causes oxygen to be cut off/Cut off oxygen supply

(31) [AO 1] Stroke occurs through blockage of cerebral artery/Blockage of blood supply to the brain

(32) [AO 1] Stroke occurs when blood vessel burst within or on surface of the brain/Heamorrhagic stroke occrus when blood vessel bursts within or on the surface of brain