OCR GCSE PE

Self-quizzing booklet

GCSE Physical Education

Name:

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Questions

Muscles and Skeleton

1. Name the bones of the arm.
2. Name the muscles that create movement in the elbow.
3. Name the bones that articulate at the knee.
4. Name the muscles that create movement at the shoulder.
5. Name the bones in the hand and wrist.
6. Name the bone surrounding the brain.
7. Name the movements that occur at the shoulder.
8. Define what an antagonistic pair is.
9. Define a fixator.
10. Give a sporting example of extension at the knee.

Levers, Axes of Rotation and Planes of movement

1. Describe the orientation of the Effort, Load and Fulcrum in a 1st class lever.
2. Describe the orientation of the Effort, Load and Fulcrum in a 2nd class lever.
3. Give a sporting example using a 3rd class lever.
4. Describe where the Frontal plane runs along the body.
5. Give a sporting example of movement along the Sagittal plane.
6. Describe where the Transverse plane runs along the body.
7. Give a sporting example of rotation around the front axis.
8. Describe where the Longitudinal axis runs in the body.
9. Give a sporting example of rotation around the transverse axis.
10. Describe the axis rotated around when performing a pirouette.

Cardiovascular and respiratory system

1. Name the four chambers of the heart.
2. Name the blood vessels that are linked to the heart.
3. Describe the role of red blood cells.
4. Define vasodilation.
5. Define vasoconstriction.
6. Name the four valves in the heart.
7. Describe the pathway of air in to the lungs in 5 stages.
8. What is the formula to work out minute ventilation?
9. What is the formula to work out Cardiac Output?
10. Describe what happens to the diaphragm and ribs when you breath in.

Effects of exercise

1. Describe the effects of Lactic acid on the muscles.
2. Define Vascular shunt.
3. Define Anticipatory rise.
4. Define Hypertrophy.
5. Describe the role on Tendons.
6. Describe the process and benefit of increased Capillarisation.
7. What is a benefit of the Intercostal muscles becoming stronger?
8. Name an immediate effect of exercise on the muscular system.
9. Name a short-term effect of exercise on the respiratory system.
10. Exercise decreases the risk of Osteoporosis, what does this mean?

Components of fitness

1. Define Muscular endurance.
2. Define Speed.
3. Define Strength.
4. Which two components make up Power.
5. How do you test Flexibility?
6. Define Agility.
7. How do you test for Co-ordination?
8. Being able to maintain your centre of mass is known as what?
9. How do you test Power?
10. Define Cardiovascular fitness.

Physical training

1. What does SPOR stand for?
2. What does FITT stand for?
3. Define Continuous training.
4. Fartlek training involves a changing of what three things?
5. What is the difference between Interval and HIIT?
6. State the five stages of a warm up.
7. Why is a cool down important for muscle recovery?
8. Why would a person use PPE?
9. What is the difference between a Sprain and a Strain?
10. What is the difference between a Risk and a Hazard?

Engagement patterns in participation

1. What are the current government participation guidelines?
2. What are the 5 most popular sports for adults in the UK?
3. Describe the difference in participation between males and females
4. Explain how age affects participation
5. State 3 factors which may affect your participation
6. Describe how family can affect your participation
7. Describe the influence of role models on participation.
8. Explain how your race or ethnicity might affect your participation.
9. What are the 3 strategies to improve participation?
10. Explain how ‘This Girl Can’ aims to increase participation

Commercialisation

1. Define commercialisation
2. Define sponsorship
3. What are the 3 components of the golden triangle?
4. State the 4 main types of media
5. Name 3 positive effects of the media on commercialisation of sport.
6. Name 3 negative effects of media on the commercialisation of sport.
7. Explain the link between sport and sponsorship
8. Name 3 examples of sponsors in sport.
9. State 3 positive effects of sponsorship in the commercialisation of sport
10. State 3 negative effects of sponsorship in the commercialisation of sport.

Ethics in sport

1. Define sportsmanship
2. Give 2 examples of when sportsmanship is shown in sport
3. Define gamesmanship
4. Give 2 examples for when gamesmanship is shown in sport
5. Define deviance
6. Explain the difference between gamesmanship and deviance
7. What are the two types of deviance shown in sport?
8. Describe the three main drugs used in sport
9. What are the 4 main causes of violence?
10. Explain how athletes may avoid violence in sport.

Skilful movement

1. Give the definition of a motor skill
2. What 6 components make a performance skilful?
3. Explain the extremes of the difficulty continuum and give an example
4. Explain the extremes of the environmental continuum and give an example
5. Explain why athletes set goals
6. What is the difference between a performance and outcome goal?
7. What does SMART stand for?
8. State the 4 types of mental preparation techniques
9. Explain the difference between internal and external imagery
10. Define selective attention

Guidance and feedback

1. Describe what verbal and visual guidance are.
2. What is the difference between manual and mechanical guidance?
3. Explain which type of guidance is best for a novice athlete
4. Give one advantage and one disadvantage of mechanical guidance
5. State the 6 types of feedback
6. Explain why athletes use feedback
7. What is the difference between knowledge of performance and knowledge of results?
8. Give an example of intrinsic feedback
9. Describe how an athlete would use negative feedback
10. What is extrinsic feedback?

Health fitness and wellbeing

1. Define health
2. Define well-being
3. What are the components of a balanced lifestyle?
4. State 2 physical benefits and 2 physical consequences of physical activity
5. State 2 emotional benefits and two emotional consequences of physical activity
6. State 2 social benefits and 2 social consequences of physical activity
7. State the 3 macronutrients
8. What is the role of carbohydrates?
9. How might protein intake differ between an athlete and a sedentary person?
10. Why should athletes stay hydrated?

Answers

Muscles and Skeleton

1. Ulna, Radius and Humerus.
2. Tricep and Bicep.
3. Tibia, Fibula, Patella and Femur.
4. Latissimus dorsi, Deltoid, Pectoral and Trapezius.
5. Carpals, Metacarpals and Phalanges.
6. Cranium.
7. Abduction, adduction, Flexion and Extension, Circumduction, Rotation.
8. Muscles that work in pairs with one muscles contracting and the other relaxing to create movement.
9. A fixator is a muscle that stabilises the origin of the prime mover.
10. Kicking a football.

Levers, Axes of Rotation and Planes of movement

1. Fulcrum in the middle, Effort and Load either side.
2. Load in the middle, Effort and Fulcrum either side.
3. A bicep curl.
4. Splitting the body in to front and back.
5. Jogging, any movement that includes flexion and extension.
6. Splitting the body in to upper and lower halves.
7. A cartwheel.
8. Straight down from top of the head down to the feet.
9. A forward roll.
10. Longitudinal axis.

Cardiovascular and respiratory system

1. Left Atrium, Right Atrium, Left Ventricle and Right Atrium.
2. Vena cava, Aorta, Pulmonary Artery, Pulmonary Vein.
3. Transporting oxygen and Carbon dioxide
4. The artery walls increase in size to increase the internal surface area.
5. The artery walls decrease in size to decrease the internal surface area.
6. Aortic, Pulmonary, Tricuspid and Bicuspid valves.
7. Nose and mouth, Trachea, Bronchi, Bronchioles, Alveoli.
8. Minute ventilation = Tidal volume x Breathing rate.
9. Cardiac output = Stroke volume x Heart rate
10. The diaphragm goes down and flat whilst the rib cage goes upwards and outwards.

Effects of exercise

1. Muscular pain and fatigue.
2. Blood is redistributed from non-essential organs to the working muscles
3. Increase in heart rate and adrenaline levels before starting exercise.
4. Muscles fibres increase in size.
5. To attach muscle to bone.
6. An increased number of capillaries in the muscles to increase gaseous exchange in that area.
7. You are able to inhale and exhale a greater volume of air.
8. Increased Temperature and/or Increased metabolic activity.
9. Increase in Breathing rate and/ Increased Tidal volume.
10. Through exercise the density of bones increases, decreasing chance of developing brittle bones.

Components of fitness

1. The ability for a muscle or muscle group to repeatedly contract without rest.
2. The ability to move the body or body part quickly.
3. The ability of a muscle to exert force for a short period of time.
4. Speed and Strength.
5. Sit and reach test.
6. The ability to change direction quickly.
7. Wall throw test.
8. Balance.
9. Vertical jump test.
10. The ability to maintain an activity for a prolonged period of time without tiring.

Physical training

1. Specificity, Progression, Overload, Reversibility.
2. Frequency, Intensity, Time, Type.
3. Maintaining a low intensity exercise for a minimum of 20 minutes.
4. Intensity, Terrain and Gradient.
5. HIIT must be performed at high intensity with short periods of work and rest. Interval training can be performed at a variety of intensities with varying work and rest periods.
6. Pulse raiser, Mobility, Stretching, Dynamic movements, Skill rehearsal.
7. Maintains blood flow to muscles to remove Lactic acid and reduce muscles soreness.
8. To reduce the risk of injury.
9. A Sprain is a tear to a ligament and the Strain is a tear/twist to a muscle.
10. A Hazard is the things that may cause injury, the Risk is the chance of that Hazard

Engagement patterns in participation

1. 60 minutes of moderate to vigourous activity for people aged 5-18.
2. Walking, swimming, yoga or dance exercise, cycling, cue sports.
3. Males participation in competitive sport is higher than females at all ages.
4. Participation decreases as you get older with a big drop off for girls post 16
5. Cost, time, education, gender, race, disability, family.
6. Positively through encouragement, transport, funding. Negatively through pressure to do one sport, won't take you or can't afford it
7. Few role models in minority sports can reduce participation
8. Worship commitments, Ramadan and cultural beliefs may limit participation
9. Promotion, provision and access.
10. Aims to increase female participation by advertising and putting on women only clubs and groups. Also provide role models for young people to aspire to.

Commercialisation

1. The influence of trade or commerce on an industry (e.g. sport) to make a profit.
2. Sponsorship is the funding of individual teams or kits to make a profit.
3. Sport, sponsorship and the media
4. Radio, TV, Newspaper and the internet
5. Increases participation, makes sport more entertaining, promotes minority sports, role models
6. Paying (sky sports) limits viewers, minority sports less coverage, controls sport, can include damaging press coverage.
7. Sponsors want to put their logo on sports kit as it is exposed to high numbers of people, and sports people need sponsorship to train full time and get the right equipment.
8. Adidas, Nike, Emirates,
9. Train full time, increased funding for equipment, pays for competition.
10. Bad image if linked to smoking/ fast food, only the top sports get sponsors, can be lost if lack of form/ injury.

Ethics in sport.

1. Sportsmanship is fair play, a behaviour which follows written and unwritten rules of the game.
2. Shaking hands at the end of a match, kicking the ball out in football if someone is injured.
3. Gamesmanship is the bending of the rules to gain an unfair advantage.
4. Diving in football, talking to a player to distract them from scoring.
5. Deviance is going against societies norms and values- breaking the rules.
6. Gamesmanship is bending the rules whereas deviance is breaking the rules
7. Drugs and violence
8. Anabolic steroids- increase muscle mass and recovery rates. Stimulants increase reaction time and alertness, reducing fatigue. Beta blockers steady the heart rate to calm your nerves.
9. Anger, frustration, we cant help it (natural instinct) and we copy others
10. Walking away, getting substituted, focusing on own performance, ignoring it, fear of punishment, anger management/ breathing exercises.

Skilful movement.

1. An action or task aimed at a target or goal which is caused by voluntary limb movement.
2. Predetermined, coordinated, fluent, aesthetic, efficient,
3. Simple and complex. Complex is where there are lots of decisions e.g. netball interception. Simple is no decisions for example a sprint start.
4. Open and close. Open is a pass in football as the environment round them might change. A tennis serve is a closed skill.
5. Athletes set goals to maintain motivation, adhere to a programme and optimise performance.
6. A performance goal relates to improving technique whereas an outcome goals are related to the end result.
7. Specific, measurable, achievable, recorded, timed
8. Selective attention, positive thinking, imagery and mental rehearsal.
9. Internal imagery is imagining yourself doing the activity. External imagery is picturing yourself doing it from outside your body.
10. Focusing on relevant cues and discarding relevant information.

Guidance and feedback

1. Verbal guidance is explaining how to complete an action where visual guidance is showing someone, e.g. a demonstration
2. Manual guidance is moving someone into the right position e.g. helping someone into the right position for the correct golf swing. Mechanical guidance is the use of a physical aid e.g. arm bands
3. Mechanical and visual guidance to help them get a feel for the movement but also be able to see what it looks like
4. One advantage is that you get the correct kinaesthetic feel for the movement but if used too much the performer may become reliant.
5. Positive, negative, intrinsic, extrinsic, knowledge of performance, knowledge of results.
6. Athletes use feedback to improve their performance and correct their mistakes
7. Knowledge of performance relates to technique where as knowledge of results relates to the outcome, e.g. win or lose.
8. The feel of hitting the tennis ball successfully.
9. They would use negative feedback to correct their performance and know not to do that action again.
10. Extrinsic feedback is feedback from outside of your body, e.g. the sound of the table tennis ball hitting the bat.

Health, fitness and well-being

1. The complete mental, physical and social state not merely the absence of disease or infirmity.
2. Positive mental state of being happy and healthy
3. Regular exercise, balanced diet, maintaining healthy body weight, maintaining positive relationships, minimising stress and not drinking or smoking excessively.
4. Prevents injury, reduces risk of coronary heart disease, increases bone density, prevents obesity and maintains good posture. Consequences include increase risk of injury, CHD, obesity, poor posture.
5. Increases self esteem, manages stress, and positive body image. Negatives include decreasing self esteem, increasing stress and negative body image.
6. Increases friendship group, sense of belonging and makes you socially active. Consequences are that it reduces social interaction, isolated and loneliness.
7. Fat, protein and carbohydrates
8. To provide energy for the working muscles
9. Protein intake will need to increase for an athlete due to muscle hypertrophy.
10. Allows chemical reactions to occur, if not enough water stroke volume decreases, increasing the heart rate and the blood thickens.