

Answers: 4 Mark Questions – Paper 1

Question 1

(4 x AO3)

2 marks sub-max (differences):

1. 2nd class lever: Load is in between fulcrum and effort
2. 3rd class lever: Effort between fulcrum and load
3. 2nd class lever example is jumping in basketball and a 3rd class lever example is bicep curl
4. 3rd class lever system most common type of lever in the body (more than 2nd class lever)
5. 2nd class lever systems can generate a lot of force

2 marks sub-max (produce movement):

1. 2nd class lever: Fulcrum is the joint between the metatarsals and phalanges
2. 3rd class lever: Fulcrum is elbow joint
3. 2nd class lever: Load is the weight of the body
4. 3rd class lever: Load is weight of forearm / plus actual weight / dumbbell / ball
5. 2nd class lever: Effort is force generated by gastrocnemius
6. 3rd class lever: Effort is force generated by biceps

Accept correctly labelled diagrams illustrating 2nd and 3rd class levers.

Question 2

(4 x AO1)

1. heart consists of two separate loops / circuits / one loop for heart and lungs and one for heart and rest of body
2. blood travels through the heart twice (during a complete cycle around the body)

(Sub-max three marks for):

3. pulmonary circulation
4. deoxygenated blood from right ventricle to lungs
5. pulmonary artery carries deoxygenated blood to lungs
6. oxygenated blood back to left atrium
7. pulmonary vein carries oxygenated blood back to left atrium

(Sub-max three marks for):

8. systemic circulation
9. oxygenated blood from left ventricle to body / muscles
10. Aorta carries oxygenated blood to body tissues / muscles
11. deoxygenated blood back to right atrium
12. vena cava carries deoxygenated blood back to right atrium

Question 3

(2 x AO1, 2 x AO2)

1. Intercostals contract
2. Diaphragm contracts/flattens
3. This pulls or moves the rib cage up/out
4. Increasing the volume of the thoracic cavity/thorax/lungs
5. Decreasing the pressure within thoracic cavity/thorax/lungs or pressure within thoracic cavity is less than atmospheric pressure

N.B. If state expiration contraction of respiratory muscles = X

Do not accept:

More space in lungs = TV

Decrease in pressure on its own = TV

Question 4

(4 x AO1)

1. Increase in power/strength (including tendon strength)
2. Increase in speed
3. Increase in (muscular) endurance OR increased resistance to fatigue OR go for longer
4. Increase in flexibility/range of movement/less chance of injury
5. Increase tolerance to lactic acid OR higher/delayed anaerobic threshold
6. Increased rate of removal of lactic acid
7. Increased/reduced/quicker recovery rate
8. Increased capillarisation at the muscles

The performer becomes quicker = BOD
LA to be removed = TV
Muscles become faster = TV

Question 5

(2 x AO1, 2 X AO2)

1 mark for:

- Reaction time: The length of time it takes a performer to respond to a stimulus OR the time between the onset of the stimulus and the initiation of the response / movement (AO1)

1 mark for:

- Importance: (The quicker the sprinter can respond/react to the gun) the quicker they will get away from the blocks OR have an advantage over their opponents (AO2)

1 mark for:

- Speed: The ability to move quickly OR distance divided by time OR rate of change of position with respect to time (AO1)

1 mark for:

- Importance: (The quicker they are able to move their body/legs/run) the greater the chance of winning the race/getting a faster time (AO2)

Question 6

(2 x AO2, 2 X AO3)

(examples of 'type' - AO2)

1. continuous
2. fartlek
3. interval
4. circuit training
5. weight training
6. plyometrics

Two marks (AO3) from:

1. adherence – varying types of exercise / training makes it less boring / reduces tedium
2. appropriateness / effectiveness - if the type(s) of exercise are appropriate, then training will be more effective
3. avoiding injury – can reduce risk of injury by doing a range of exercises instead of repeating the same ones
4. positive feelings / reinforcement – getting good results from the right type(s) of training makes you want to continue
5. clearer outcomes – easier to tell if your needs / aims are being met if correct type(s) of training used

Answers: 4 Mark Questions – Paper 2

Question 7

(2 x AO2, 2 X AO3)

2 marks for two suggestions from:

1. Promote through targeted information/ education about health / well being benefits through leaflets or lessons
2. Highlight / promote body image benefits or weight control by using appropriate images or referring to image benefits
3. Challenge / combat discrimination from others by arguing against sedentary activities
4. Refer to role models (suitable for this age group) using peers or successful female athletes or get role models to talk to groups of females
5. Provide female only classes or use (young) female instructors for exercise classes
6. Run yoga/ Pilates / aerobic / dance (traditionally female activities) or run activities that are not traditionally linked to female participation such as rugby, football or boxing
7. Run exercise classes at times of the day that are convenient to this group

2 marks for assessment from:

1. Ask / use questionnaire to refer to focus groups of 11 – 14 females
2. Count or make a record of attendance at extra curricular / club activities
3. Ask parents whether participation is regular
4. Carry out fitness / health test to assess whether regular activity had taken place

Question 8

(4 x AO2 - only give mark if linked to PA)

1. More information / education on the benefits opportunities of regular sports participation, e.g. TV advertising to show benefits of regular exercise or e.g. This Girl Can / advertising local clubs on the radio or Change 4 life
2. Regular opportunities for coaching / instructing to enable more frequent participation e.g. fitness instructors available across the working day and evening
3. More facilities available for regular participation e.g. ensuring that each community is served by a leisure centre
4. Facilities available for longer during the day to enable regular participation e.g. local swimming baths open early morning and close late evening
5. More accessible facilities or more localised facilities or better transport arrangements to access facilities e.g. facilities have wheelchair ramps or a (free) local bus service is provided
6. Cheaper facilities for sport or concessions for more adults to be involved e.g. the local leisure centres give concessions for the elderly or give cut price admission for regular users
7. Introduction of adapted games e.g. walking football, walking basketball, touch rugby for adults.
8. Activities/sessions for adults only or age-group sessions e.g. adult / 40 plus / 50 plus fitness classes
9. Provision for childcare e.g. gyms that provide childcare/ nursery/ playgroup/ youth group so that parents can exercise.

Question 9

(4 x AO3)

1. (Total) number of adults who participate in sport has risen between 2005 and 2015
2. The frequency of moderately intense exercise has risen between 2005 and 2015 or a rise for all frequencies
3. Group B / once a week increased the most or Group D / 3 times a week has increased the least
4. More adults participate for once a month rather than any other category. A / once a month is greater than B, C or D.
5. A relatively low level / 25 – 30% / 16 – 20 million / less than a third of adults' exercise for more than once a week (compared to the population as a whole)
6. Or the rise in population has resulted in more participation
7. Little or no change in percentage/proportion of population participating (in any group/frequency)

Question 10

(4 x AO3)

1. Show a wider variety of sports activities OR increase the breadth of coverage of sport
2. Show minority sports to stimulate interest
3. Educate about the importance of participation in sport (e.g. educate about health / fitness / body image / social benefits)
4. Educate about how to play sport (e.g. what the skills are)
5. Give relevant information about opportunities in sport (e.g. where / how to get involved)
6. Show the enjoyment factor of participating
7. Show positive role models OR show role models that young people can relate to
8. Use young people in media coverage
9. Fund / sponsor activities of individual athletes / teams
10. Use social media to promote / advertise sport
11. Highlight the success of UK sports performers OR highlight the success of those who participate

Question 11

(4 x AO2)

1. Skill practice should be **measurable** e.g. to improve shooting in hockey see how many shots out of 20 you can score.
2. Skill practice should be **achievable** e.g. the hockey player should be at the right standard to be able to cope with the practice OR agreed e.g. the hockey player accepts the target of scoring 10 goals in the season
3. Skill practice should be **recorded** or realistic (see example for achievable) e.g. the amount of shots scored should be recorded / kept a diary by the player/coach
4. The goal set should be within a **time(-frame)** e.g. After 3 weeks of shooting practice the amount of goals scored by the hockey player should be greater

One specific skill must be used for marks to be awarded. Accept if embedded in examples and not listed on the line provided. Accept only the first named skill in the explanation.

Do not accept other named skills as examples in the explanation.

No marks available for 'specific' points (specific in the question)

Each (S)MART point must be linked to a practical example to score marks

Accept realistic for recorded but as a substitute for achievable

Question 12

(4 x AO2)

Advantages = max of 2 marks

1. Good for beginners because they can construct / visualise a mental image of what is required, for example a novice gymnast can visualise how to perform a handstand
2. Easy to remember a demonstration, for example remembering a coach's demonstration of a forehand in tennis
3. Can be motivating, for example watching a coach demonstrating a successful penalty in football
4. Is quick and effective, for example a coach demonstrating a serve in badminton
5. Limits the learning of incorrect movements / bad habits, for example a coach demonstrating the correct method of a golf swing
6. Can be viewed from different angles / positions to see important points, for example watching a volleyball player serve from different angles

Disadvantages = max of 2 marks

7. Demonstrations could be incorrect leading to incorrect learning, for example a coach might show a poor demonstrating of a hockey flick
8. Do not get the kinaesthetic sense / feel of the skill by merely watching, for example watching a somersault in trampolining does not result in any physical experience of the activity
9. May be difficult / too complex to understand / follow, for example a basketball coach showing a player a defence drill may be too difficult for the player to understand
10. Can be demotivating if too difficult or difficult to see / make sense of, for example a novice watching a diver's demonstrating of a full twisting somersault results in the novice becoming demotivated.

Each point must include a practical example for a mark to be given.

Accept:

- Any suitable practical example

Do not accept:

- Direct opposites (e.g. motivating (adv) and demotivating (disadv)) = one mark only

Question 13

(4 x AO2)

1. Success or competition experience can be enjoyable / completion or success in an activity can give sense of satisfaction
2. Increase self-confidence or suppress self-doubt
3. When you exercise you can improve your self-image or others reinforce a more positive image
4. Self-esteem increased by doing well or adhering to an exercise / physical activity routine
5. Dynamic exercise / physical activity can relieve tension / stress
6. Aggression can be channelled through physical activity / exercise
7. Can encourage mindfulness / meditation / self- awareness

Question 14

(4 x AO2 – 2 marks for benefits, 2 for examples)

1. Friendship / making friends / being sociable
2. E.g. making friends in an exercise class
3. Belonging to a group / feeling part of a group / community
4. E.g. being part of a hockey club
5. Avoiding / limiting loneliness OR stop being lonely / isolated
6. E.g. combatting loneliness by participating in a bowls club
7. Raising (social) confidence
8. OR being more confident around others
9. E.g. Developing skills in archery
10. Less social (and health) care needed OR needing less looking-after
11. E.g. A walking club activity may help to develop independence

Question 15

(4 x AO3)

1. Less likely to be injured and therefore less stressed
2. Less likely to be ill or suffer from disease / named illness or feel healthier therefore less stress
3. More likely to control your weight and therefore less likely to be stressed
4. Have better body posture and therefore less stress
5. More likely to be fit and therefore less stressed
6. Activity can release stress busting hormones /endorphins
7. Get rid of excess energy / tension for less stress / relaxes you or can feel a cathartic/
frustration/aggression/anger release when exercising and therefore less stressed
8. Can forget stressors or escapism or clear your mind
9. Make you more confident and therefore less stressed
10. Better body image so you feel less stressed about your appearance
11. Using relaxation techniques from yoga classes may lead to less stress/anxiety or exercise
releases muscular tension so you feel relaxed
12. Having fun / enjoyment reduces stress or enjoying being with others/friends to reduce stress
13. Winning a game/tournament / good performance can improve self-esteem / reduce stress.
14. Sense of belonging or providing a support network to reduce stress

Responses should refer to ways of managing stress:

e.g. lowering / controlling stress or being happier / less anxious / feeling better /
relaxes / removes worries etc... **Do not accept (on its own) managing stress (in
question)**

Accept - physical activity may help to control your weight and increase your
fitness to make you less stressed = 2 marks