

# AQA A2 Revision

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Based on past paper questions and answers to those questions

# Content

1. Fast and Slow-twitch muscle fibres
2. Vectors (velocity and acceleration) and scalars
3. Catastrophe theory
4. Attitudes
5. Attribution retraining
6. Role of NGBs
7. Sport and the Law
8. Technology in Sport

# Muscle fibres – Typical question

Identify and explain the three different 'muscle fibre types' used in different stages of a swimming race. *(4 marks)*

(a) What do you understand by the term motor units? *(3 marks)*

(b) How are motor units involved in spatial summation? *(3 marks)*

# Slow-twitch fibres/Type 1 - characteristics

Aerobic, hence lots of:

# Fast twitch fibres - characteristics

Anaerobic – low levels of:

# Another fast-twitch fibre

# Motor Units

- Group of fibres plus nerve =
- Either
- Different size of motor units – recruitment:
  - larger unit -
  - more units used -
  - FT unit -
  - ST units initially used; FT later -

# Control of strength

Motor units either \_\_\_\_\_ or they do not \_\_\_\_\_ at all -

- Spatial summation – based on \_\_\_\_\_ of motor units and \_\_\_\_\_ of motor units used
- More and/or bigger motor units will produce more \_\_\_\_\_
- Based on \_\_\_\_\_



# Vectors - Typical question

- (a) Explain, in terms of the player moving towards the ball, the difference between *velocity* **and** *acceleration*. (3 marks)
- (b) Use *Newton's Three Laws of Motion* to explain how a tennis player moves towards the ball in preparation to play a stroke. (5 marks)

# BIOMECHANICAL TERMS

- Velocity –
- Acceleration –
- Displacement -
- Momentum -
- Force -
- Vector -

# FORCES

What forces affect a body / performer in motion?

1.

2.

3.

4.

5.

# NEWTON'S LAWS – effects on performer

1.

2.

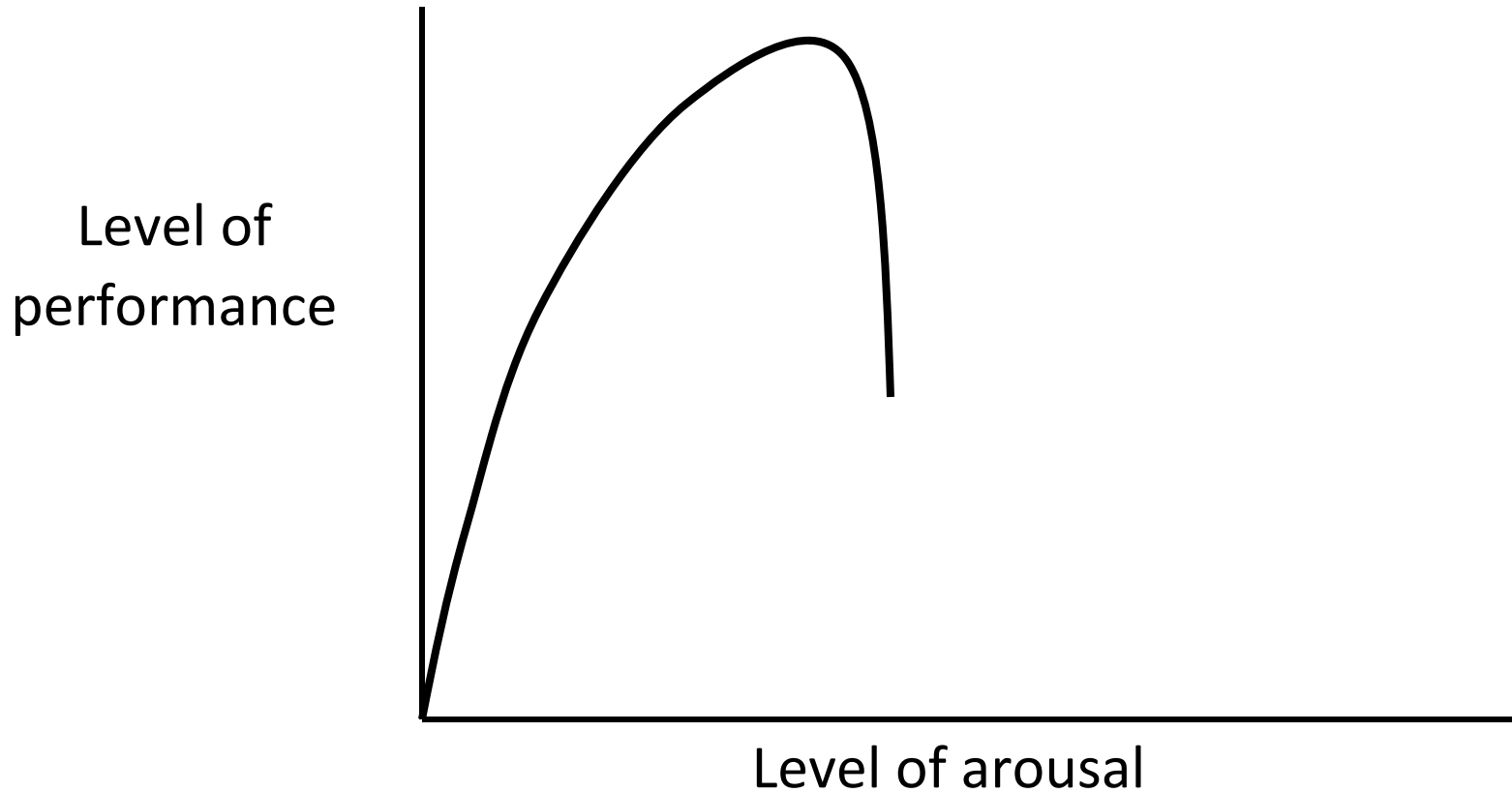
3.

# Catastrophe theory - Typical question

During a tennis match, a player may display signs of anxiety and become over-aroused.

Using 'catastrophe theory', describe how over-arousal may affect a player's performance. *(4 marks)*

# Catastrophe theory



# Catastrophe theory explained

- Point A - increasing arousal above causes decline in performance
- At point B the performer either continues with and performance to C
- Or at B, performer arousal and performance will gradually to point D

# Attitudes – typical question

Elite tennis players have to devote large amounts of time to develop their skills, requiring a positive attitude and high levels of motivation.

Name and explain the components of attitudes, giving an example of how a tennis player would display a positive 'attitude'.

*(3 marks)*

*(3*

Using **one** named psychological theory, outline how the negative attitude of an individual or of a team can be changed.

*(4 marks)*



# Attitudes

- Opinions -
- 
- Predispose towards
- Positive and negative
- Directed towards                      and

# Components of Attitudes

- Cognitive –
- Affective –
- Behavioural –
- Normally the three components are

# Influences on formation of attitudes

1. Peers – copying attitudes of
2. Significant others – parents/teachers/coaches –
3. Familiarity – attitudes develop
4. Conditioning – existing attitudes - strengthen

# Attitudes and behaviour

- Attitudes - good predictors of
- Positive attitudes lead to  
behaviour
- Eg
- Eg
- Eg

# Changing attitudes

Persuasive communication – needs:

- 
- 
- communication
-

# Changing attitudes

- change a component
- produce
- Comfortable if our thoughts ( ), feelings ( ) and actions ( ) components match
- Producing inconsistency – eg negative attitude, but - may change attitude as a whole

# Attribution re-training – Typical question

How would a coach use 'attribution theory' to maintain motivation following a defeat? *(4 marks)*

Performers may attribute their success and/or failure to various factors. What do you understand by the term attribution retraining, **and** when would it become necessary? *(3 marks)*

# Attribution Theory

- The \_\_\_\_\_ we provide for

Can lead to changes in our:



# Weiner's model

- Locus of (ability and effort) or (task difficulty and luck) – (ability attributions (task difficulty and luck))
- Locus of (ability and effort) or (task difficulty and luck) – stable/unchanging (ability attributions (task difficulty and luck)) or changeable/unstable (ability attributions (task difficulty and luck))

# Self-serving bias

- Tendency to attribute success and failure
- Makes us feel better about ourselves – maintains
- We avoid responsibility for our

# Links to achievement motivation

- Attributions affect
- Suggestion that high and low achievers differ in their
- High achievers – attribute success and failure
- Low achievers – success ; failure

# Learned helplessness

- Expectation of failure – failure inevitable even if possible
- Due to attributing to lack of
- Requires

# Attribution retraining

- Changing the reasons we give for success/failure

# NGBs – Typical question

All sports have to develop elite performers. How can a National Governing Body ensure that they help develop elite performers?

*(5 marks)*

How might success at an Olympic Games positively affect a National Governing Body. *(4 marks)*

# Role of National Governing Bodies

- Develop structure
- 
- Manage development strategies – ,
- Develop structure
- Manage
- Enforce
- Promotion – use of

# Role of National Governing Bodies

- Increase
- Improve facilities and personnel –
- Attract funding –
- Tackle
- Need to meet criteria for lottery funding –



# Sport and the Law – Typical question

Some sports have experienced violence, both on and off the field of play, involving both players and spectators.

How does the law and sports legislation help to ensure that performers are protected during sporting contests? *(3 marks)*



# Sport and the law

- Promoters must provide a playing environment / stadiums are
- The law protects performers from
- Legislation over
- Equality legislation prevents /
- /

# Technology in sport – Typical questions

The rewards for success in elite sport are increasing every year and officials are under greater pressure than ever from players, supporters and the media.

Discuss the suggestion that the increased use of technology to help officials make the correct decision has improved the sporting event. *(7 marks)*

# Technology in Sport

- Cameras – of incidents –
- Equipment -
- Stadiums –
- Sports -