**Information Processing- Decision Making Questions**

* When the players involved in a 2 v 1 situation are novices, the attack often breaks down. In terms of the input stage of information processing, explain why the attack may break down. *(3 marks)*
* In terms of the psychology refractory period, explain why a 2 v 1 situation should cause a defender’s response time to be slower.

 *(3 marks)*

In team games, players often need to move into position quickly.

* Explain the difference between the terms movement time and reaction time. (2 marks)

Choice reaction time is far more common in team games than simple reaction time.

* Explain this statement. (2 marks)
* What can games players do to improve their response time? (3 marks)
* Using examples from tennis, explain how the relationship shown in **Figure 4** will affect the time it takes for a player to respond to an opponent’s shot. *(3 marks)*
* Use the ‘single channel hypothesis’ to explain why there is a delayed response by a player in tennis when their opponent’s shot hits the top of the net and changes direction. *(3 marks)*

Performing a skill involves ‘movement time’, ‘response time’ and ‘reaction

time’.

* What is the relationship between these three time phases? *(1 mark)*
* Identify the factors that could affect a games player’s response time.

 *(5 marks)*

When playing badminton, the shuttlecock occasionally hits the top of the net during

a rally and the receiver has to adjust their response.

This causes a delay before the final response can be made.

* Explain why this occurs. (3 marks)

**Information Processing- Decision Making Answers**

**When the players involved in a 2 v 1 situation are novices, the attack often breaks down. In terms of the input stage of information processing, explain why the attack may break down. *(3 marks)***

*A. Information overload/too much to take in/too many stimuli*

*B. Poor selective attention*

*C. Focus on inappropriate/irrelevant stimulus/signals/cues*

*D. Unable to focus on correct/relevant/ appropriate signals/cues*

*E. Unable to look to see both defender and support player*

*F. Loss of concentration*

**In terms of the psychology refractory period, explain why a 2 v 1 situation should cause a defender’s response time to be slower.**

***(3 marks)***

*A. Attackers select a move and defender must respond*

*B. Initial stimulus is closely followed by a second stimulus*

*C. Defender slowed by increasing decisions/choices/choice reaction time*

*D. First stimulus must be cleared before the second one can be processed*

*E. Hick’s Law/single channel hypothesis/bottleneck theory*

*F. To fake/dummy and beat the defender*

**In team games, players often need to move into position quickly.**

**Explain the difference between the terms movement time and reaction time. (2 marks)**

A. Movement time – the time taken from the initiation/start of the movement/ pass to finish/completion of movement/pass

B. Reaction time – the time taken to decide a response/type of pass to a given stimulus/time taken from the onset of the stimulus to the start of the movement/pass/response

**Choice reaction time is far more common in team games than simple reaction time. Explain this statement. (2 marks)**

A. Choice Reaction Time – numerous stimuli and/or responses and Simple Reaction Time – one stimulus and one possible response

B. Games – open skills need CRT mainly/predominate/many choices/ decisions/few SRT skills/moments

**What can games players do to improve their response time? (3 marks)**

A. Concentration/pay attention/selective attention/focus on cues

B. Relevant practice/overlearning

C. Be at optimum arousal level/ increased arousal/alertness

D. (Temporal/spatial) anticipation/predict actions/trying to identify cues earlier

E. Mental rehearsal

F. Improve movement time/improve fitness/improve reaction time

G. Intensity of stimulus/a warning signal

**Using examples from tennis, explain how the relationship shown in Figure 4 will affect the time it takes for a player to respond to an opponent’s shot. *(3 marks)***

A. More choices slows/longer response time;

B. High number of responses – no change in response time/plateau;

C. Hick’s Law

D. Player plays expected/same stroke – quick response time;

E. Player plays unexpected/different shot – delays response time;

**Use the ‘single channel hypothesis’ to explain why there is a delayed response by a player in tennis when their opponent’s shot hits the top of the net and changes direction. *(3 marks)***

A. Single channel hypothesis – one stimulus processed at a time;

B. Second stimulus arrives before first response can be completed;

C. Cannot deal with second stimulus/ response until finished with first stimulus/response;

D. There is a slower/longer response/ reaction time;

E. Psychological Refractory Period

F. Player reacts too late/rushed shot/unforced error/egs/cannot return/opponent wins/player loses point;

**Performing a skill involves ‘movement time’, ‘response time’ and ‘reaction**

**time’. What is the relationship between these three time phases? *(1 mark)***

1. Response time = reaction time + movement time

**Identify the factors that could affect a games player’s response time.**

***(5 marks)***

5 marks for 5 of:

A. Type of stimuli – sound fastest;

B. (Previous) experience/anticipation of the movement (accept reverse);

C. Gender – Males have shorter/quicker response times than females;

D. Age – response time decrease with age;

E. Intensity of the stimulus – ball colour/ speed of delivery;

F. Concentration levels/distractions/ selective attention/stimulus overload;

G. Playing environment – surface/weather/ lighting;

H. Physical fitness/injury/fatigue;

I. Duration of the movement/reaction time/ number of choices/stimuli/Hicks

law;

J. Level of arousal/drugs/alcohol/state of mind/anxiety;

K. Psychological refractory period/ deception/faking from opposition;

L. Stimulus-response compatibility;

M. Length of neural pathways;

**When playing badminton, the shuttlecock occasionally hits the top of the net during a rally and the receiver has to adjust their response. This causes a delay before the final response can be made.**

**Explain why this occurs. (3 marks)**

1. Due to the single channel/bottle neck/limited processing capacity

2. One signal must be cleared before another can be responded to

3. Can only deal with one piece of information at one time/respond to one stimulus

at a time

4. So the response to the second response takes longer

5. Psychological refractory period