Assessment 3

Answer sheet

A level PE

1. Consider the following statements:

**“Horizontal flexion is the movement of the limbs away from the midline of the body parallel to the ground.”**

**“Rotation is the movement whereby articulating bones turn about their longitudinal axis in a screwdriver action.”**

1. Which of the following is true?

**Put a tick (☑) in the box next to the correct answer.**

1. Both Statements are true.  **☐**

**B.** The first statement is true, the second is false. **☐**

**C. The first statement is false, the second is true. ☐**

**D.** Both statements are false.  **☐**

**[1 Mark]**

1. In order for a muscle to contract, one or more motor units will be stimulated and will follow the ‘all or none’ law.

(i)Describe the structure of a motor unit.

It is made up of a **motor unit** that receives a signal and then sends this down the **Axon** to the **synaptic cleft**; this is known as the **neuromuscular junction**.

**3 marks**

1. **Fig.2 shows a gymnast holding a position on the rings.**

Name the muscle and the type of movement at the hip. State the type of contraction while the position is being held.

Iliopsoas, flexion at the hip and an isometric contraction. [**3 Mark)**

1. The muscle fibre type that would be used during an endurance event will be primarily a Slow Oxidative fibre. Give 2 structural and 2 functional characteristic of this fibre

|  |  |
| --- | --- |
| **Fibre Size** | Small |
| **Mitachondria Density (number of)** | Large |
| **Number of Capilleries** | Large |
| **Myoglobin Content** | High |
| **PC Stores** | Low |
| **Fibres per Nureon** | Small |

|  |  |
| --- | --- |
| **Speed of Contraction** | Slow |
| **Force of Contraction** | Low |
| **Fatigue Resistance** | High |
| **Aerobic Capacity (ability to work with O2)** | High |
| **Anaerobic Capacity (ability to work without O2)** | Low |

**(4 marks)**

**5.** Identify a motor skill in sport and justify its classification on the open-closed continuum.

Explain which practice methods would be most appropriate for this skill.

**(5 marks)**

**5marks -a motor skill must be identified If motor skill is wrongly classified (e.g. a free throw is an open skill) do not carry error forward – mark justification positively.**

**Justification for open classification/Open because: Sub max 3 E.g. A pass or shot in hockey / sailing**

1. the environment or others affect the skill / environment is unstable or changing or unpredictable / performer has to adapt to changing environment

2. predominantly perceptual / needs a lot of perception or judgement or interpretation

3. there is much information to process/ the skill is more complex / lots of decision making

4. the skill is externally paced / the speed or timing of the skill is dictated or controlled by others

**OR Justification for closed classification/Closed because: Sub max 3 E.g. swimming strokes / gymnastics movements e.g. vault**

5. the environment or others do not affect the skill / environment is stable or unchanging or predictable

6. predominantly habitual / the same pattern of movements is repeated.

7. there is little information to process / the skill is simple / fewer stimuli / fewer responses.

8. the skill is internally or self paced / the performer controls the speed of the skill.

**Explanation of practice methods: Sub max 3 NB practice method must be stated to gain mark**

**Practice methods for open skills**

9. **varied** practice should be used to motivate / to build interest or schema / give different experiences / simulates game situation varied prac on own

**OR Practice methods for closed skill:**

10. **fixed** practice should be used to form habits / to develop motor programmes

**Practice methods for open OR closed skills**

11. **distributed** practice should be used to allow for recovery / feedback / coaching

12. **Whole part whole** for open skills to correct faults or give specific coaching

13. **massed** practice should be used to form habit /to develop motor programmes

14. **whole** practice should be used for understanding of environment

15. **whole part whole** or **part** practice should to develop or improve (weak) subroutines

16. **whole** practice should be used to give idea or understanding or a mental picture or holistic view of skill

17. (progressive) **part** practice should be used to give early success / to motivate or give confidence / to help understanding the skill / for more complex skills / if skill is dangerous / to increase safety

**6.** The learning of movement skills is divided into phases.

Identify the three phases of learning movement skills. Using practical examples, describe each phase.

**(3 marks)**

**6 marks - 2 marks max for each phase. Descriptive point must be accompanied by a suitable practical example.**

1. **Coqnitive phase** Do not accept beginner / novice / first

2. Demonstration **e.g.** ............

3. Leads to a mental picture (being formed) / Mental Rehearsal / understanding what needs to be done **e.g.** ............

4. trial and error / lots of mistakes **e.g.** ......................

5. Movement (often) lacks fluency or rhythm / movement jerky **e.g.** ...................

6. Needs conscious thought on technique **e.g.** .......... Accept ...on skill/movt

7. Unable to use intrinsic feedback / only extrinsic feedback effective **e.g.** ..............

1. **Practice can be massed or distributed. What is distributed practice, when might it be used and what are the advantages of this type of practice? (5 marks)**

**Sub max 1 (What)**

1 Practice sessions with rest periods/breaks included

**Sub max 1 (When)**

2 Beginners/less experienced

3 Task is dangerous/complex/gross/continuous

4 Task is dangerous/physically demanding/unfit performers

**Sub max 3 (Advantages)**

5 Not as tiring/can help maintain motivation/allows for recovery/not as boring

6 Mental rehearsal can occur between sessions

7 Allows for sessions to be varied

8 Corrections/feedback can be made at each session/mistakes are not compounded

**Total 24**