



University of Fort Hare  
*Together in Excellence*

## EXAM PAPER 1

### PERCEPTUAL MOTOR DEVELOPMENT (HUS315)

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| <b>PROGRAMME:</b>          | Bachelor of Health Science in Human Movement Science |
| <b>DATE:</b>               | June Exam  |
| <b>EXAMINER:</b>           | Mrs. M. Idamokoro                                    |
| <b>INTERNAL MODERATOR:</b> | Mrs. X. Muller                                       |
| <b>EXTERNAL MODERATOR:</b> | Mr. K de Wet   |
| <b>DURATION:</b>           | 3 hours  |
| <b>MARKS:</b>              | 100  |

Student answers all the questions in Sections A, B and C.


**SECTION A**

[30]

**QUESTION 1**

{7}

Make use of Column A and B. Match the correct description in Column B with the appropriate terminology in Column A. Write only your answer in the answer book that is provided, e.g. 1.1 C.

| COLUMN A |                            | COLUMN B |  |
|----------|----------------------------|----------|--|
| 1.1      | Proprioceptor              | A        |   |
| 1.2      | Sensation                  | B        | The receptors located under the skin, in the muscles, at muscle-tendon junctions, and in joint capsules and ligaments.   |
| 1.4      | Somatosensors              | C        | The collective name of the various kinaesthetic receptors located in the periphery of the body.  |
| 1.4      | Affordances                | D        | A part of the movement does not take part as the person planned it.  |
| 1.5      | Fundamental movement skill | E        | The neural activity triggered by a stimulus that activates a sensory receptor and results in sensory nerve impulses traveling along the sensory nerve pathways to the brain. |
| 1.6      | Spatial awareness          | F        | The actions or behaviours provided for or permitted to an individual by the places, objects, and events in and of an environment.  |

|     |         |   |  |
|-----|---------|---|--|
| 1.7 | Apraxia | G | An organised series of basic movements that involve the combination of movement patterns of two or more body segments. |
|-----|---------|---|--|

**QUESTION 2****{18}**

Indicate whether the following statements are true or false. Provide the correct answer if the statement is false. If no reason is provided, no marks will be allocated.

- 2.1 Movement plays a critical role in the development of young children as it reflects the neurological organisation and provides stimulation to the neurological systems that are essential for development and optimal functioning.
- 2.2 For children, temporal patterns are more difficult than spatial patterns to integrate.
- 2.3 The mind and the body must work together for learning to take place.
- 2.4 Stimulation, encouragement and motivation are needed in order for children to engage in physical activity.
- 2.5 Perception refers to the output system, while motor refers to the input.
- 2.6 Balance can be classified into two (2) categories i.e. proprioception and awareness.
- 2.7 Maturation can be a good indicator of motor development.
- 2.8 A good physical education instructor can combine the theory and put it into practice by planning sound physical education sessions.
- 2.9 The testing time for the TGMD-3 per child takes between 5 -10 minutes to administer.
- 2.10 The afferent mechanism includes the motor system, which responds to the signals from the brain to create the correct motor output.
- 2.11 Familiar sporting expressions, such as 'the eyes lead the body', 'keep your eye on the ball' and 'you can't hit what you can't see', clearly underscore the key role that vision plays in sports participation.
- 2.12 When assessing a child using the TGMD, a child scores 0 for performing the skill correctly.
- 2.13 Visual-spatial information is one of the most reliable sensory modalities.

**QUESTION 3****{5}**

**Multiple choice** Choose the correct answer to the following questions.

- 3.1 The perception of the body's location and orientation in space, independent of vision is called \_\_\_\_\_ (1)
- a. Directionality
  - b. Spatial orientation
  - c. Laterality
  - d. Lateral dominance
  - e. All of the above
- 3.2 Children with dyslexia have difficulty with \_\_\_\_\_. (1)
- a. Timing precision
  - b. Talking fluently
  - c. Reading fluently
  - d. Critical thinking
  - e. Listening
- 3.3 A simple procedure in which at least two stimuli are presented simultaneously to see whether infants will attend more to one of them than the other(s). (1)
- a. The habituation method
  - b. High amplitude sucking
  - c. Evoked potentials
  - d. The preference method
  - e. None of the above
- 3.4 The ability to identify shapes and symbols correctly is termed \_\_\_\_\_. (1)
- a. Form perception
  - b. Intermodal perception

- c. Depth perception
- d. Figure background discrimination
- e. Visual perception

3.5 Identify the lobe(s) in the brain which controls visual activity. (1)

- a. Frontal lobe
- b. Parietal lobe
- c. Temporal lobe
- d. Occipital lobe
- e. All of the above

**SECTION B** [40]

**QUESTION 4** {9}

As a paediatric motor specialist, you have to prepare an educational presentation for primary school teachers at a local school. Inform them of the three (3) basic movement categories, and provide an example for each.

**QUESTION 5** {11}

Individuals with normally functioning sensory receptors can attach different meanings to the same stimulus and can interpret a single stimulus in different ways. Thus, sensory systems are very important for movement acquisition.

5.1 The development of the kinaesthetic system is very important to skill performance because it gives relevant information to the body. Explain the information it yields. (2)

5.2 Discuss the concept of auditory figure-ground skills and provide a scenario that would require a child to make use of 'auditory figure-ground' skills. (6)

- 5.3 Perceptual-motor activities require children to use their brain and body together to accomplish tasks. Provide three (3) examples of perceptual motor activities that you can present during your lessons to a 6 year-old. (3)

**QUESTION 6** {11}

- 6.1 You are appointed as the Kinderkineticist of a primary school to teach PE for children aged 6-9 year-old. Identify the motor development phase that these learners would find themselves in and explain to a colleague what characteristics you would look out for. (8)
- 6.2 As a physical educator, provide some teaching tips to your other colleagues that they can use for children with perceptual motor skill deficiencies. (3)

**QUESTION 7** {9}

Sports vision is an emerging field that seeks to establish the relationships between visual function and sports performance.

- 7.1 Explain in your own words how sports vision training can contribute to better motor performance. (3)
- 7.2 Provide an argument to explain how stress during performance can influence an athlete's visual perception. (6)

**SECTION C** [30]

**QUESTION 8** {30}

As a researcher in the department of Human Movement Science, your aim of study was to assess the motor development of young school children. The results revealed that the research population had adequate perceptual motor skills, except for kinaesthetic/ proprioceptive awareness.

- 8.1 Provide a thorough discussion on proprioceptive awareness by mentioning, describing and providing examples of all the relevant subcomponents with regards to spatial awareness and temporal awareness. (18)
- 8.2 As a physical educator, identify six (6) characteristics that you look out for to flag children with perceptual motor deficiencies that might need a referral to a specialist. (6)
- 8.3 Briefly discuss three (3) environmental factors that will have a negative influence on movement and skill acquisition that can prevent gross motor development. (6)

**TOTAL: 100**