 Province of the

EASTERN CAPE

EDUCATION

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT**

**(SEN-FET)**

**HOME SCHOOLING SELF-STUDY WORKSHEET ANSWER SHEET**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SUBJECT** | LIFE SCIENCES | **GRADE** | 12 | **DATE** | 28 May 2020 |
| **TOPIC** | Pupillary Mechanism & Accommodation | **TERM 1**  **REVISION** |  | **TERM 2 CONTENT** | 🗸 |

**QUESTION 1**

* + 1. B🗸🗸
    2. C🗸🗸 (2 × 2) = 4

**QUESTION 2**

2.1 2.1.1 A 🗸 (1)

2.1.2 2 🗸 (1)

2.1.3 - The ciliary muscle contracts and moves closer to the lens 🗸

- the ciliary body moves forward 🗸

- the tension on the suspensory ligament decreases 🗸 and

- the tension on the lens is released 🗸

- the elastic lens now bulges and becomes more convex 🗸

- the refractive power of the lens is increased 🗸

- a clear image of the object is now formed on the retina 🗸. (Any 4)(4)

**[6]**

**QUESTION 3**

3.1 3.1.1 The further from the light source, the wider the diameter of the pupil. 🗸🗸

**OR**

As the light intensity increases/decreases the diameter of the

pupil increases/decreases. 🗸🗸 (2)

3.1.2 - Position of the face/person 🗸

- The intensity of light 🗸

- Time allocated for the light source at each distance 🗸

(Any 2) (2)

3.1.3 (a) Independent factor – The position of the lamp/light source 🗸

(b) Dependent factor – Diameter of the pupil 🗸 (2)

3.1.4 Accept. 🗸/Reject🗸 (Mark the response in correspondence with

hypothesis given by the learner in QUESTION 3.1.1) (1)

3.1.5 The size (diameter) of the pupil increases 🗸 when the light intensity decreases. 🗸

**OR**

The further from the light source, 🗸 the wider the diameter of the pupil🗸

**OR**

The closer the right source, 🗸 the diameter of the pupil becomes smaller 🗸

(2)

3.1.6 - The circular muscles 🗸 will relax 🗸 while the radial muscles 🗸

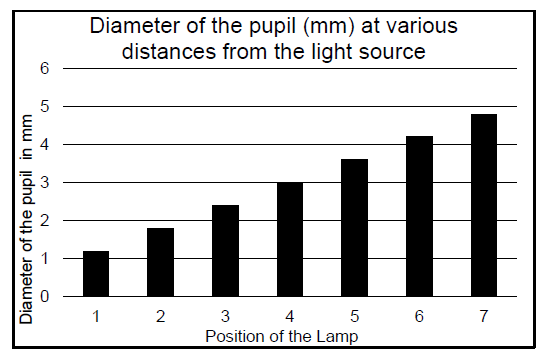
contract.🗸

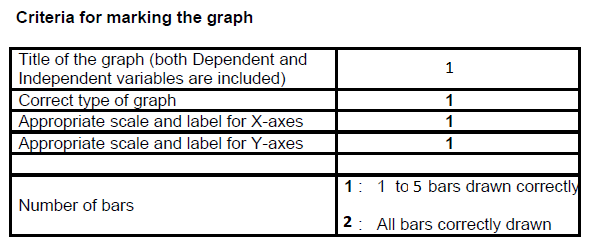
- As a result the diameter of the pupil will increase/dilate🗸.

(Max 4) (4)

3.1.7 Pupillary mechanism 🗸 (1)

3.1.8





(6)

**[20]**

**TOTAL: 30**