 Province of the

EASTERN CAPE

EDUCATION

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)**

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SUBJECT** | LIFE SCIENCES | **GRADE** | 11 | **DATE** | 24 July 2020 |
| **TOPIC** | PROCESS OF DIGESTION AND ABSORBTION | **TERM 1**  **REVISION** |  | **TERM 2 CONTENT** | ✓ |

**Question 1**

1.1.1 A ✓✓

1.1.2 C ✓✓ **(2×2) (4)**

1.2.1 Enzyme✓

1.2.2 Lacteal ✓

1.2.3 Amino acids ✓

1.2.4 Lipases ✓ **(1×4) (4)**

**Question 2**

2.1 Villus structure ✓

2.2 Small intestine ✓

2.3 - It is long, ✓which means it has a very large surface area for absorption ✓

- It has many folds ✓which enlarges the surface area for maximum absorption of nutrients ✓

- millions of villi and micro-villi ✓which enlarge the surface area even further ✓

- The thin-walled ✓villi (outer walls of villi are lined by a single layer of columnar epithelium) facilitate easy absorption.✓

- Absorptive surface is kept moist ✓ by digestive juices and mucus to facilitate diffusion of nutrients. ✓

(Mark the first TWO only)

2.4 E ✓

* 1. A- Lacteal ✓

B- Artery ✓

C- Goblet cells ✓

D- Epithelial ✓

E- Vein ✓

2.6 Mitochondria ✓

2.7 E ✓

2.8 Active ✓

2.9 A✓ **(15)**

**Question 3**

3.1 Oesphagus ✓

3.2 Peristalsis ✓

3.3 Peristalsis is the movement of food✓ through the digestive system✓ by the rhythmic contraction and relaxation of circular muscles✓ along the alimentary canal.

3.4 Stomach ✓ **(6)**

**Question 4**

4.1 -Carbohydrates are broken down to smaller size by teeth ✓

- and the stomach churns/ mixes the food ✓ to become a liquid

-which is known as chyme. ✓

-Carbohydrases/ amylase ✓

- in the saliva, ✓

-in the pancreatic juice ✓

-and intestinal juice✓ break down the

-polysaccharides (starch) ✓

-to disaccharides ✓ and

- eventually to monosaccharides ✓

-in an alkaline ✓medium (Mark any 9)

4.2 -Glucose✓ in small intestine ✓moves

-and by active transport ✓ which requires energy ✓

-and by diffusion ✓ passive/ no energy required ✓

-through the columnar epithelial cells ✓

-into the blood capillaries ✓

-of the villus. ✓ (Mark any 6)

**(15)**

**Grand total: 45**