 Province of the

EASTERN CAPE

EDUCATION

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

**HOME SCHOOLING SELF-STUDY WORKSHEET**

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| **SUBJECT** | LIFE SCIENCES | **GRADE** | 11 | **DATE** | 24 JULY 2020 |
| **TOPIC** | PROCESS OF DIGESTION AND ABSORBTION | **TERM 1**  **REVISION** |  | **TERM 2 CONTENT** | ✓ |
| **TIME**  **Marks** | 50 MINUTES  40 | **TIPS TO KEEP HEALTHY**  1. **WASH YOUR HANDS** thoroughly with soap and water for at least 20 seconds. Alternatively, use hand sanitizer with an alcohol content of at least 60%.  2. **PRACTICE SOCIAL DISTANCING** – keep a distance of 1m away from other people.  3. **PRACTISE GOOD RESPIRATORY HYGIENE**: cough or sneeze into your elbow or tissue and dispose of the tissue immediately after use.  4. **TRY NOT TO TOUCH YOUR FACE.** The virus can be transferred from your hands to your nose, mouth and eyes. It can then enter your body and make you sick.  5. **STAY AT HOME.** | | | |
| **INSTRUCTIONS** | Use the provided template answer all the questions. |

**Question 1**

* 1. Choose the correct answer and circle the letter (A-D) for the chosen answer.

1.1.1 A substance that needs to be digested before it can be absorbed

A Protein

B Glucose

C Glycerol

D Amino acid (2)

1.1.2 The tiny finger-like projections in the small intestine

A Goblet cells

B Microvilli

C Villi

D Epithelium (2)

**(2×2) (4)**

* 1. **Give the correct biological term for each of the following descriptions**

1.2.1 A protein that acts as a catalyst to regulate or speed up most biochemical reactions in living cells.

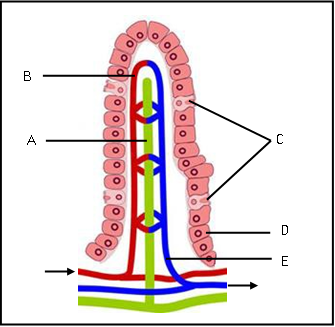
1.2.2 A lymph capillary in the villi of the small intestine where fats are absorbed.

1.2.3 The building blocks of proteins.

1.2.4 A group of enzymes that breakdown lipids. **(1×4) (4)**

**Question 2**

**Study the diagram below and answer the questions that follow.**

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2.1 Provide an appropriate title for this diagram. (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.2 In which part of the digestive tract would this structure be found? (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2.3 Explain TWO structural adaptations of the part mentioned in 2.2 that enables it to perform its functions. (4)

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2.4 In which part (B or E) would you expect to find more nutrients? (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Provide labels for A to E. (5)

1. \_\_\_\_
2. \_\_\_\_
3. \_\_\_\_
4. \_\_\_\_
5. \_\_\_\_
   1. What structures would you expect to find on cells labelled D? (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Provide the letter of the structure where absorbed glucose and amino acids will be found. (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Is the absorption of glucose and amino acids active or passive? (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Give the letter for the structure into which fatty acids and glycerol are absorbed? (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(16)**

**Question 3**

The diagram below shows a diagrammatic representation of the digestive system.

A screenshot of a cell phone

Description automatically generated

3.1Name the part of the alimentary canal represented by X. (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.2 By which process is food moved through structure X? (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3.3 Describe the above mentioned process. (3)

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3.4 Name the part of the alimentary canal where the digestion of proteins begins. (1)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(6)**

**Question 4**

4.1 Describe the digestion and absorption of food that contains only carbohydrates. (9)

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4.2 Describe the absorption of the products of carbohydrate digestion (6)

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**Total marks: 45**