Name: _____ Grade _____ Date: _____

Bahamas Academy of Seventh-day Adventists

Biology Take–Home Test – Grade 11

Instructions: **Print a copy of this test, complete and return to teacher by June 6, 2007**

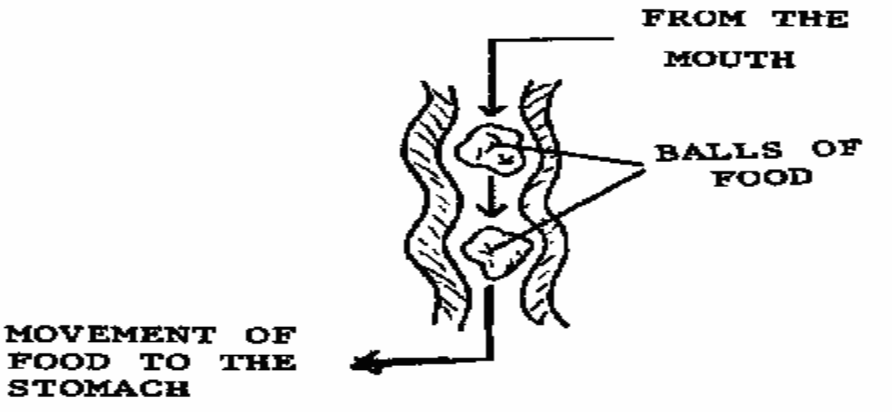
Section A : Multiple Choice (15 marks)

Circle the letter of the best response in each case.

1. Which row in the table below gives the correct information about human nutrition?

	Stage of Nutrition	Where it Takes Place
A	Ingestion	Mouth
B	Digestion	Esophagus
C	Absorption	Large Intestine
D	Assimilation	Small Intestine

2. What process does the diagram below illustrate?



A. Absorption B. assimilation C. Osmosis D. Peristalsis

3. Which row in the table below correctly states where the digestion of starch and protein begins?

	Where starch digestion begins	Where protein digestion begins
A	Mouth	Oesophagus
B	Mouth	Stomach
C	Stomach	Small Intestines
D	Small Intestines	Large Intestines

4. Which row in the table below correctly states where the digestion of proteins begins and ends?

	Where Protein Digestion Begins	**Where Protein Digestion Ends**
A	Mouth	Esophagus
B	Mouth	Stomach
C	Stomach	Small Intestine
D	Small Intestine	Large Intestine

5. The majority of digested food is absorbed by the blood from the:
   A. liver B. stomach C. large intestines D. small intestines

6. Which of these flow diagrams shows the correct order in which food moves through the alimentary canal?
   A. mouth > oesophagus > stomach > small intestine > large intestine
   B. mouth > oesophagus > stomach > large intestine > small intestine
   C. mouth > large intestine > small intestine > stomach > oesophagus
   D. mouth > small intestine > large intestine > oesophagus > stomach

7. Where does ingestion of food takes place?
   A. in the stomach B. in the mouth C. in the colon D. in the small intestine

8. What happens in the body when peristalsis takes place?
   A. Air moves in and out of the lungs. C. Blood flows through the blood vessels.
   B. food moves through the alimentary canal. D. Urine passes out of the bladder.

9. Which flow diagram below correctly shows the order in which the processes take place?
   A. digestion > ingestion > egestion > assimilation > absorption
   B. egestion > digestion > absorption > ingestion > assimilation
   C. ingestion > digestion > absorption > assimilation > egestion
   D. digestion > assimilation > egestion > absorption > ingestion

10. Which row in the table below gives correct information about the four organs involved in the digestion of food?

	Organ	**Enzymes made here?**	**Food passes through?**	**Food absorbed here?**
A	Mouth	YES	YES	YES
B	Stomach	YES	YES	NO
C	Liver	YES	YES	NO
D	Pancreas	YES	NO	YES

11. Which row in the table below gives CORRECT information about some of the digestive enzymes?

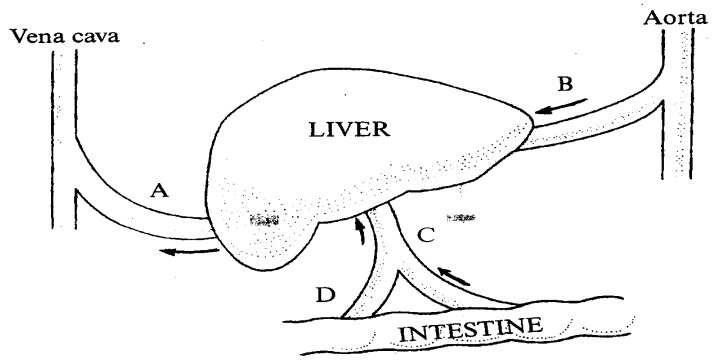
	ENZYME	WHERE IT WORKS	WHAT IT DOES
A	Amylase	Mouth	Changes fat to fatty acids
B	Lipase	Large Intestine	Changes starch to glucose
C	Pepsin	Stomach	Changes proteins to polypeptides
D	Lactase	Small intestine	Changes sucrose to amino acids

12. Which row in the table below gives the CORRECT information about absorption and assimilation?

	ABSORPTION	ASSIMILATION
A	Ingestion of food	Use of food in the body
B	Breakdown of food	Removal of undigested food
C	Movement of food into the bloodstream	Breakdown of food
D	Movement of food into the bloodstream	Use of food in the body

13. Which ONE of the following is NOT a part of the alimentary canal?
A. stomach B. liver C. duodenum D. large intestines

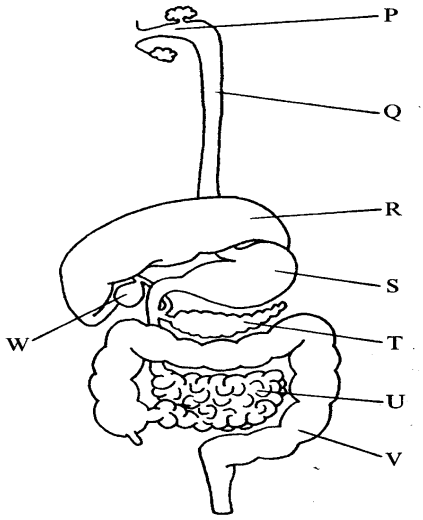
14. This diagram shows the blood vessels connected to the liver. The arrows show the direction of blood flow.



Which blood vessel A, B, C or D would contain the most urea?

15. What would be the result if there was a blockage of the tube that connects the gall bladder with the small intestine?
A. Bile would not flow into the small intestine to help break down fats.
B. Enzymes would not flow into the stomach to help digest proteins.
C. Hydrochloric acid would not flow into the liver to help destroy toxins.
D. Insulin would not flow into the small intestines to help control blood sugar

Section B: Short Answers (35 marks)
Answer all questions in this section in the spaces provided.



1. (a) Give the name of **ONE** enzyme which helps in the digestion of each of the following nutrients:

   (i) starch _____

   (ii) proteins _____

   (iii) fats_____ (3 marks)

   (b) Name the **end products** of starch, protein and fat digestion:

   (i) starch _____

   (ii) protein _____

   (iii) fat _____ (4 marks)

   (c) Which nutrient listed in (b) above is completely digested in the duodenum?
   _____ (1 mark)

(d) Why is it not necessary for vitamins and minerals to be digested?
_____ (2 marks)

(e) Where in the digestive system is water absorbed? _____ (1 mark)

(f) Write the **NAME** of the part of the digestive system:
(i) where food is mixed with gastric juice (1)

(ii) that produces bile (1)

(iii) which is lined with finger-like projections and where most absorption of food takes place. _____ (1 mark)

2. (a) What is meant by assimilation of food?

_____ (1)

(b) Briefly explain how the body uses amino acids and what happens to any excess amount that was taken in.

_____

_____

_____

(5)

3. The table below gives some information about food nutrients, enzymes and digestion.

Digestive Organ	**Digestive Juice**	**Digestive gland**	**Enzyme**	**Nutrient Acted On**	**Nutrient Produced**
Mouth	**Q**	Salivary Glands	Amylase	Starch	Maltose
P	Gastric Juice	Gastric Glands	Pepsin	Protein	Polypeptides
Small Intestine	Bile			Fat	Fat Droplets
	Pancreatic Juice	Pancreas	**R**	Starch	Maltose
			Trypsin	Protein	Polypeptides
			Lipase	Fat Droplets	Fatty acids Glycerol
	Intestinal Juice	Intestinal Glands	Maltase	Maltose	Glucose
			Sucrase	Sucrose	**S**
			Peptidase	Polypeptides	Amino Acids

(a) Name the missing parts of the table labelled P, Q, R and S.

Digestive organ P _____

Digestive Juice Q _____

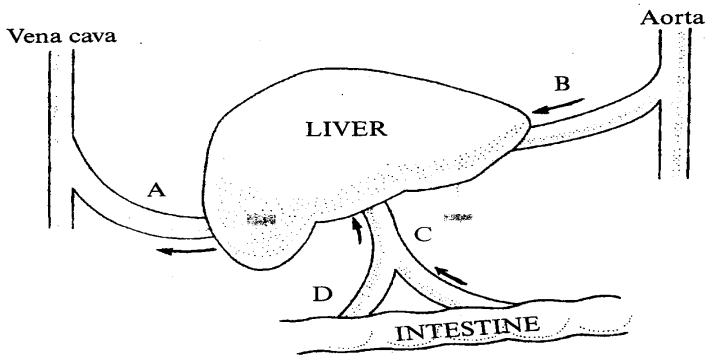
Enzyme R _____

Nutrient S _____ (4 marks)

(b) What is the function of enzymes? _____ (1 mark)

(c) What is the end product of the digestion of proteins? _____ (1 mark)

4. The following is a diagram of the human liver and the blood vessels connected to it.



(a) Where in the human body is the liver located? _____ (1)

(b) Name the blood vessels labelled A, B and C.

A_____ B _____ C _____ (3)

(c) In what form is excess glucose stored in the liver? _____ (1)

(d) List FOUR important functions of the liver.

1. _____
2. _____
3. _____
4. _____

(4)