

ENZYME SUMMARY ASSIGNMENT

Table A - Source and Optimal pH

<u>1.</u>	PANCREAS pH = 7.5 →8.5
<u>2</u>	STOMACH (Gastric Glands) pH = 2 →3
<u>3</u>	PANCREAS pH = 7.5 →8.5
<u>4</u>	DUODENUM pH = 7.5 →8.5
<u>5</u>	Sublingual/ Parotid/ Submandibular pH = 7
<u>6</u>	PANCREAS pH = 7.5 →8.5
<u>7</u>	DUODENUM pH = 7.5 →8.5
<u>8</u>	PANCREAS pH = 7.5 →8.5
<u>9</u>	DUODENUM pH = 7.5 →8.5

Table B - SUBSTRATE

<u>1.</u>	SMALL PEPTIDE CHAINS
<u>2</u>	NUCLEOTIDES
<u>3</u>	DNA/RNA (Nucleic Acids)
<u>4</u>	PROTEINS
<u>5</u>	MALTOSE
<u>6</u>	STARCH
<u>7</u>	TRIGLYCERIDES (FATS)
<u>8</u>	STARCH
<u>9</u>	PROTEINS

Table C - PRODUCT

<u>1.</u>	AMINO ACIDS
<u>2</u>	NUCLEOTIDES
<u>3</u>	PHOSPHATE, PENTOSE SUGAR & NITROGENOUS BASE
<u>4</u>	SMALL PEPTIDE CHAINS
<u>5</u>	GLUCOSE Molecules
<u>6</u>	SMALL PEPTIDE CHAINS
<u>7</u>	MALTOSE
<u>8</u>	MALTOSE
<u>9</u>	GLYCEROL & FATTY ACIDS

Table D - REACTION IMAGES (pay attention to arrows)

<p><u>1</u></p>	<p> $\begin{array}{c} \text{H}_3\text{C}-\text{O}-\text{C}-\text{R}^1 \\ \\ \text{HC}-\text{O}-\text{C}-\text{R}^2 \\ \\ \text{H}_3\text{C}-\text{O}-\text{C}-\text{R}^3 \end{array} + 3 \text{H}_2\text{O} \longrightarrow \begin{array}{c} \text{H}_3\text{C}-\text{OH} \\ \\ \text{HC}-\text{OH} \\ \\ \text{H}_3\text{C}-\text{OH} \end{array} + \begin{array}{c} \text{HO}-\text{C}-\text{R}^1 \\ \\ \text{HO}-\text{C}-\text{R}^2 \\ \\ \text{HO}-\text{C}-\text{R}^3 \end{array}$ </p>
<p><u>2</u></p>	<p> $\begin{array}{c} \text{H} \quad \text{H} \quad \text{O} \quad \text{H} \\ \quad \quad \quad \\ \text{---N---C---C---N---C=O} \\ \quad \quad \quad \\ \text{R} \quad \text{H} \quad \text{OH} \end{array} + \text{H}_2\text{O} \longrightarrow \begin{array}{c} \text{H} \quad \text{H} \quad \text{O} \\ \quad \quad \\ \text{C---N---C---C=O} \\ \quad \quad \\ \text{R} \quad \text{OH} \end{array} + \begin{array}{c} \text{H} \quad \text{H} \quad \text{O} \\ \quad \quad \\ \text{H---N---C---C=O} \\ \quad \quad \\ \text{H} \quad \text{R} \quad \text{OH} \end{array}$ </p>
<p><u>3</u></p>	<p> $\text{C}_6\text{H}_{10}\text{O} + \text{C}_6\text{H}_{10}\text{O} \longrightarrow 2 \text{C}_6\text{H}_{10}\text{O}$ </p>
<p><u>4</u></p>	<p> $\text{phosphate group} + \text{sugar} + \text{nitrogenous base}$ </p>
<p><u>5</u></p>	<p> $\text{amino acids} = \text{polypeptide chain} \longrightarrow \text{protein}$ </p>

<p><u>6</u></p>	
<p><u>7</u></p>	
<p><u>8</u></p>	
<p><u>9</u></p>	