**NAME: ODOK-OGAR DIVINE ONYODUMA**

**MATRIC NUMBER: 18/MHS05/009**

**DEPARTMENT: PHYSIOLOGY**

**COURSE: BCH 204**

**QUESTIONS:**

1a. What are coenzymes.

b. Differentiate between fat and water soluble vitamins.

c. Describe niacin in relation to its coenzymic function.

**ANSWERS:**

1. Coenzymes: these are cofactors that are loosely bound to the enzyme. They are organic in nature.

b.

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| **FAT SOLUBLE** | **WATER SOLUBLE** |
| Soluble in fat. | Soluble in water. |
| Absorption requires bile salt.  | Absorption is simple. |
| Carrier proteins present. | No carrier proteins needed. |
| Stored in the liver. | Has no storage. |
| Not excreted. | Excreted.  |
| Deficiency manifests only when stored are depleted. | Deficiency manifest rapidly as there is no storage. |
| The treatment of deficiency involves single closes to prevent it. | Regular dietary supply is required. |
| Includes vitamin A, D, E, K. | Includes vitamin B-complex & C. |

**C.** This vitamin can generally be found in two distinctive forms, namely nicotinic acid and nicotinamide. These substances are used by the body to form the coenzymes NAD and NADP. Niacin coenzymes degrade carbohydrates, fats, proteins and alcohols and synthesize fatty acids and cholesterol.