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**MATRIC NUMBER; 18/MHS02/004**

**DEPARTMENT; HUMAN ANATOMY**

**COURSE TITLE; MEDICAL BIOCHEMSTRY**

**COURSE CODE; BCH 204**

**ASSIGNMENT TITLE; VITAMINS AND COENZYMES**

1 what are coenzymes

Coenzymes are substance that enhance the action of an enzyme.( an enzyme is a protein that functions as a catalyst to mediate and speed a chemical reaction)

Coenzymes are small molecules .they cannot by themselves catalyze a reaction but they can help enzymes to do so. In technical terms ,coenzymes are organic nonprotein molecule that bind with the protein molecule(apoenzymes) to form the active enzymes(holoenzymes)

b diffentiate between fat and water soluble vitamins

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| Fat water soluble vitamins | Water soluble vitamins |
| 1. They are soluble
 | They are not soluble |
|  2 . present of absorption | Absorption is simple |
| 3 . carriers of proteins | No protein carriers |
| 4 . stored in liver | No storage |
| 5 .no excretion | Presents of excretion |
| 6 .manifests only when stores are depleted | Manifest rapidly as there is no storage |
| 7 .present of vitamins A,D E AND K | Present of vitamin B AND C |

Describe niacin in relation to its coenzymes function

Another name for niacin is vitamin B3 which is a water soluble vitamin. This can be found in two distinctive forms namely nicotinic acid and nicotinamide.These are substance used by the body to form the coenzymes NAD and NADP. Niacin coenzymes degrade carbohydrate fats, protein and alcohols synthesize fatty acids and cholesterol. This play role in cells signaling