Name: Onoja Enewa

Matric number : 19/mhs06/034

Course: BCH 204

Dept: medical laboratory science

1a Coenzymes are non protein components, required by enzymes for their optimum activity. They bind loosely to the enzyme and are organic in nature.

b Differences between fat soluble and water soluble vitamins.

|  |  |
| --- | --- |
| Fat soluble vitamins  | Water soluble vitamins  |
| They are fat soluble  | They are water soluble  |
| Absorption requires bile salt | Their absorption is simple  |
| Carrier proteins are present  | No carrier proteins  |
| They are stored in the liver | They are not stored |
| They are not excreted  | They are excreted  |
| Deficiency manifests only when stores are depleted  | Deficiency manifests rapidly as this is not stored  |

c Naicin exist in 2 forms: nicotinic acid and nicotinamide which are precursors of coenzymes nictotinamide adenine dinucleotide (NAD+) and nictotinamide adenine dinucleotide phosphate (NADP+). NAD+ and NADP+ are involved in various oxidation and reduction reactions catalyzed by dehydrogenase in metabolism. They are therefore involved in many metabolic pathways of carbohydrates, lipid and protein. Generally, NAD+ linked dehydrogenase catalyse oxidation -reduction reactions in oxidative pathways e.g citric acid cycle and glycolysis.