

NAME: OGUNNIKE IYANUOLUWA. O

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DEPARTMENT: PHYSIOLOGY

COLLEGE: MHS

QUESTION

- 1a) What are coenzymes.
- b) Differentiate between fat and water soluble vitamins.
- c) Describe niacin in relation to its coenzymic function.

1a) Coenzymes are organic non-protein compound that binds with an enzyme to catalyze a reaction. They are cofactors that are loosely bound to the enzyme.

b)

Water soluble vitamins	Fat soluble vitamins
They are not soluble in fat	They are not soluble in water
They are soluble in water	They are soluble in fat
They have no storage as they easily dissolve	They are stored majorly in the liver
Absorption is simple	Absorption occurs along with lipids
Deficiency manifests rapidly as there is no storage	Deficiency manifests only when stores are depleted.

c) Vitamin B3, generally known as niacin, is a water soluble vitamin. Its coenzymatic functions are to:

- i. degrade carbohydrates, fats, proteins and alcohols
- ii. to synthesize fatty acids and cholesterol.