

I'd number 16463

Course Title: Biochemistry I

Summer Semester

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Max Marks: 50

Note: There are FIVE questions, each carry 10 marks with grand total of 50 marks.

ATTEMPT all questions.

Avoid copy paste material from any source, as it may deduct your marks.

Q1: How Fat soluble vitamins are absorbed by the body.

Ans 1

Fate soluble vitamins absorption

*the absorption of fat soluble mechanism is same as other lipid

*Absorption take place in small intestine

*these vitamins not absorbed directly into the blood stream .

*but they are absorbed into the lumen in the small intestine via
chylomicrons

*And transported through lymphatic system and release into the
blood stream.

Q2: Classify the BLOOR classification of lipids, discuss fatty acid and its types.

Ans 2

Bloor classification of lipid

According to the bloor classification lipid are classified into three groups

*simple lipid (fats and waxes

*compound lipid (phospholipoid ,glycolipoid)

*derived lipid (fatty acid ,alcohol ,sterol)

Fatty Acid

Fatty acid are straight chain of even numbr of carbon atoms, with hydrogen atoms along the lenght of chain atone end and corboxyl group at the other end

Classification of Fatty Acide

-Saturated fatty acid

-Unsaturated fatty acid :

Monounsaturated

Polyunsaturated

Essential fatty acid

Q3: Write down the biological significance of any 5 essential minerals.

Ans 3

Significance of Zinc

-Zn found through out the body cells

-it is needed for the body defensive system to work properly

-it play important role in

Cell division

Cell growth

Wound healing

And break down of carbohydrates

Significance of copper

-Cu play's in important role in our metabolism

-copper maintain the strenght of

Skin

Blood vessle

Epithilial tissue

And conective tissue

Significance of Iron

-it is important for the :

Oxygen transport

Energy production

Immunity

Cognitive function

Significance of Iodine

Most important role of iodine in our body as help in the synthesis

in the synthesis in the thyroid hormones

Which influence the body metabolism

Significance of calcium

Calcium is necessary for most of physiological function i-e

Nerve conduction

Muscular contraction

Cardiac automaticity

Cell division

-it is the co factor in the many steps of blood coagulation

Q4: Discuss digestion and absorption of lipids.

Ans 4

Digestion of lipids

Digestion of lipid start in the stomach , the stomach content

have been emulsified ,fat breaking enzymes work on triacylglycerol and diacylglycerol to sever fatty acid from their glycerol foundation .

As the pancreatic lipase enter into small intestine it break down the fat into the free fatty acid and monoglycerides

ABSORPTION OF LIPID

It is absorbed from small intestine

-lipid is take by lectal in small intestine

-transport through the lymphatic system

-the lymphatic give lipid into the blood stream and blood transport it into the different parts of the body

Q5: Briefly explain function, sources and deficiency symptoms of following vitamins: ans 5

Retinal

Sources of retinol

Animal source

Fish., meat , liver

Plant source

Green vegetable , carrot

Function of retinol

Help in maintainins of

Teeth

Fertility

Connective tissue

Mucus membrans

DEficincy symptom

Xerophthalmia

Nieght blindness

Thiamine.....

SOURCES OF thiamin

Includ ...grain, meat ,fish ,breads and cereales

FUNCTION OF THIAMIN

It helps in the body change energy

-rule in the carbohydrates to provid energy into the body parts

especially to the brain

-Also help in the muscle contraction ,nerve conduction

DEFICIENCY SYMPTOM OF THIAMIN

-bariberi

Pyridoxin.....

SOUFCES OF PYRIDOXIN

Pork , meat ,fish ,peanuts ,grain and oats

SIGNIFICANCE OF PYRIDOXIN

-it needed for the healths of nerves , skin ,and red blood cell

-it is use in certaint treatment

DEFICIENCY SYMPTOMS

Peripheral neuropathies

Seboric dermatitis

Glositis

Cheilosis

End