

NAME

①

Integhram ul haq

ID

14468

Subject

Biochemistry 2nd

Department

ATB

Question NO:- 2

Define Starvation and what are the metabolism changes takes place during Starvation?

Ans:- Starvation response:

in animals is a set of adaptive biochemical and physiological changes that reduced metabolism in response to a lack of food.

Equivalent or closely related terms include Famine response, starvation tolerance, adapted starvation, adapted thermogenesis, fat adaptation and metabolism adaptation.

Bacteria become highly tolerant or antibodies when nutrients are limited. Starvation contributes to antibiotic tolerance during infection, as nutrients become limited.

P.T.O

②  
when they are sequestered by host defenses and consumed by proliferating bacteria. one of the most important causes of starvation induced tolerance in vivo is biofilm growth, which occurs in many chronic infections.

Question NO:- 3

How electrons transfer take place in electron transport chain?

Ans:- Electron transport chain:- The electron transport chain is a series of complexes that transfer electrons from electron acceptors via redox (both reduction and oxidation occurring simultaneously) reactions, and couples this electron transfer with the transfer of protons ( $H^+$  ions) across a membrane. The electron transport chain is built up of peptides, enzymes and other metal molecules.

③

The electron transport chain in the mitochondrion is the site of oxidative phosphorylation in eukaryotes. The NADH and succinate generated in the citric acid cycle are oxidized, providing energy to power ATP synthase. The electron transport chain of the thylakoid membrane: The flow of electron transport chain is an exergonic process. The energy from the redox reaction create an electrochemical proton gradient that drives the synthesis of adenosine triphosphate (ATP).

Question No: - 4

Write note on metabolism of carbohydrates.

Ans: - metabolism: is the whole of the biochemical processes responsible for the breakdown, and interconversion of carbohydrates in living organisms.

Carbohydrates are central to many essential pathways.

plants synthesis carbohydrate from carbon dioxide and water through photosynthesis allowing them to store energy absorbed from the sunlight internally. When animals and fungi consume plants, they use cellular respiration to break down these stored carbohydrates to make energy available to cells.

Question NO:- 2

Write clinical significance of some of the enzymes.

(a) Gamma-glutamyl transferase

Ans:-

clinical importance of Gamma Glutamyltransferase in the Ankara - Pulasaklar region of Turkey.

Oguz Tekin, MD, CEM Uraldi, MD [...] and Elife Ercan, MD

Additional article information Abstract.

Objective:-

The Aim of this study is to determine the etiologies of serum gamma glutamyltransferase

⑤

(GGT) elevation and relation  
between multiple etiologies  
prevalent in the puzsaklar  
region of Ankara in Turkey.

---

(b) Glucose-6-phosphate  
dehydrogenase.

Normal Function:-

The G6PD  
gene provides instructions for  
making an enzyme called  
glucose-6-phosphate dehydrogenase.  
The enzyme, which is active  
in virtually all types of cells  
is involved in the normal process  
of carbohydrates. It plays a  
critical role in red blood  
cells, which carry oxygen from  
the lungs to tissues throughout  
the body. This enzyme helps  
protect red blood cells from damage  
and premature destruction.

---

Q5 Draw diagram of oxidative phosphorylation

Ans Diagram of Oxidative phosphorylation:-

