

Course Name : Bachelor of Physical Education

Year : IInd

Paper Name : Kinesiology and Physiology of Exercise

Paper No. Ist

Lecture No. 7

Topic no. : Sec - C(3)

Lecture Title : Role of Energy Cycle in Physical Education Part - I

F.A.Q

Q1. What is the immediate source of energy ?

A1. The energy from our food must first be converted to a common energy currency; ATP or Adenosine triphosphate. It is thus, ATP that serves as the immediate energy source for muscular work. Because muscle ATP concentrations are very low, during exercise, the production of ATP, sometimes at very high rates, is of the highest priority.

Q2. What are sources of energy ?

A2. The only direct source of energy for triggering muscular contraction and hence movement is adenosine triphosphate or generally called ATP. ATP cannot be stored in the cells in large quantities.

Q3. What is aerobic glycolysis ?

A3. In the process of aerobic glycolysis, glycogen is broken down to furnish the energy to replenish ATP. During this process, water and carbon dioxide are liberated to be transported to the elimination centres.

Q4. What is Lactic Acid System ?

A4. the Lactic Acid system using anaerobic glycolysis prevails. In this case during the process of resynthesizing ATP, glycogen is broken down to pyruvic acid.

Q5. What is the function of fatty Acid ?

A5. The fatty acids used to produce energy by skeletal muscle are derived primarily from adipose tissue tri-glycerides, and to a lesser extent from intramuscular triglycerides. It should be noted that triglycerides (TG) must be broken down before they can be used as a fuel substrate.