Q1/Define the following:

1- Metabolism
2- **Catabolic pathway**
3- Anabolic pathway
4- Primary metabolism

Q2/Enumerate the following:

1- **The purposes of metabolism:**

2- **Types of Metabolic Pathways**

3- **Stages or Phases of Metabolism**

Q3/ Fill in the blanks:

1- **_____** pathways, where energy rich complex macromolecules are degraded into smaller molecules.
2- _____pathways. The cells synthesize complex molecules from simple precursors.
3- In the first stage, digestion in the gastrointestinal tract converts the macromolecules into small units. For example, proteins are digested to _____.
4- The reducing equivalents are mainly generated in the mitochondria by the final common oxidative pathway, citric acid cycle. In this process, NADH or FADH2 are generated. This is called _____- metabolism.
5- In the first stage, digestion in the gastrointestinal tract converts the macromolecules into small units. For example, proteins are digested to amino acids. This is called _____.
6-

Q4/

1- **Amino acids** are mainly meant for body building purpose T
2- The reducing equivalents are mainly generated in the mitochondria by the final common oxidative pathway, citric acid cycle. In this process, NADH or FADH2 are generated. This is called primary metabolism. F
3- In the first stage, digestion in the gastrointestinal tract converts the macromolecules into small units. For example, proteins are digested to amino acids. This is called secondary metabolism. F
4- Anabolic (biosynthesis) pathways. The cells synthesize complex molecules from simple precursors. T
5- Anabolic pathways, where energy rich complex macromolecules are degraded into smaller molecules. Energy released during this process is trapped as chemical energy, usually as ATP.F
6-