Using other nutrients and anaerobic respiration

Read Chapter 4.5-4.7

Fill in the blanks

1. Our cells primarily use _____ as the starting material but most cell types can also produce ATP from _____, _____, _____, and _____.
2. Glucose is the only nutrient that undergoes _____, all other nutrients enter the process at some other stage.
3. What is the building block for each macromolecule?
    a. Protein - _____
    b. Carbohydrates - _____
    c. Fat - glycerol and _____
    d. Nucleic acids - _____
4. Amino acids contain nitrogen groups that have to be removed through a process called _____.
5. Nitrogen groups are removed as _____ (NH_3), which is then converted into _____ and excreted by the kidneys.
6. When nucleotides are broken down the nitrogen groups have to be removed. When pyrimidines are broken down, they are converted into urea and when purines are broken down, they are converted into _____.
7. Glycerol is a 3-carbon molecule that can be converted into pyruvate. Fatty acids can be broken down by a process called _____ and formed into Acetyl-CoA.
8. The enzyme that breaks down fat is called _____ in a process called lipolysis.
9. Fat is stored mainly in _____ tissue but also some is stored in the liver and _____.

Anaerobic Respiration

10. Muscle cells quickly deplete oxygen during strenuous, high intensity activity and the cells rely only on _____ for ATP production.
11. When oxygen is low or absent, ATP is produced through _____ respiration.
12. When oxygen is present, ATP is produced through _____ respiration.
13. Would fatigue happen faster or slower during anaerobic respiration? _____
14. During anaerobic respiration, the pyruvate produced during glycolysis is converted into _____ instead of _____.

15. During anaerobic respiration, the NADH produced during glycolysis has to be converted back into _____.
16. The H+ ion is moved from NADH to pyruvate to form _____, this process is anaerobic respiration and is also called _____.
17. Yeast cells are single-celled organisms from the kingdom _____.
18. Yeast cells call also undergo fermentation and the end result is _____ instead of lactic acid.
19. During yeast fermentation, the other by-product is _____, which makes bread fluffy.
20. _____ is the hormone causes blood sugar to decrease.
21. The 3 stress hormones that increase blood sugar are:
    a. _____
    b. _____
    c. _____