**YEAR 11 HUMAN BIOLOGY –**

**METABOLISM QUESTIONS**

1. Define Metabolism
2. What are the two types of metabolism? How are they different?
3. Write the word and chemical reaction for Cellular Respiration
4. Why is it necessary for cells to respire?
5. Is cellular respiration a catabolic or anabolic reaction? Justify your choice.
6. What does ATP stand for?
7. How is ATP different from ADP? (not only in structure but how energy is stored/used)
8. Draw and label the energy ‘ADP-ATP’ cycle
9. What is the difference between Aerobic and Anaerobic Respiration in terms of
10. The location of the chemical reactions within the cell
11. The reactions/process involved
12. quantity of energy produced
13. Explain how the body removes the by-products (non-useful products) for each process
14. Give an example of some sports or activities in which most energy would come from aerobic respiration
15. Give an example of some sports or activities in which most energy would come from anaerobic respiration
16. List the processes in the body that require energy.
17. Some observers at an athletics carnival noted a sprinter who had just run 400m in 50secs was breathing much more heavily than a runner who had just completed a marathon in 2.5hrs. Suggest why this is so.
18. Explain what is meant by ‘oxygen debt’ or recovery oxygen’. How is an ‘oxygen debt’ repaid?