Final Review LIFE 1010-01

1) List the 5 fundemental characteristics of living organisms.

2) What is Cell Theory?

3) What is the difference between natural selection and evolution?

4) What are the three subatomic particles and what are their charges?

5) Is a C----C bond ionic or covalent? Polar or non-polar?

6) List the three types of bonds learned in this course in order of weakest to strongest.

7) What pH has more H+ protons, pH=8 or pH=5?

8) Why is carbon important to organic life?

9) Complete the table.

Macromolecule	Monomer Unit	Bond Name
Protein		
	Nucleotide	
		Glycosidic Linkage

10) Is a dehydration reaction used to break two molecules apart or bond them?

11) What level of protein structure do we see alpha helixes and beta pleated sheets?

12) If a cell is having trouble moving molecules throughout the cytoplasm, what organelle might be missing?

13) Draw a graph of an exergonic reaction. Is this typically catabolic or anabolic?

14) If the active site of an enzyme is blocked by a different substrate, what kind of inhibition is this called?

15) What is happening to a molecule when it is gaining electrons? What about when it is losing electrons?

16) In cellular respiration, where is most of the ATP produced?

17) What is the purpose of light reactions? What is the purpose of dark reactions?

18) Transcribe the DNA below.

3’ ACGCTCTTG 5’

19) What does it mean when DNA is said to be Semi-Conservative? What about anti-parallel?

20) What is the central dogma of biology?

21) What is the least harmful type of mutation?

22) What is the ploidy of cells at the end of mitosis? What is the ploidy of cells after meiosis?

23) What is the resulting ratio of a dihybrid cross?

24) If a blue flower and a pink flower produce a flower that is half blue and half pink, what kind of dominance is this?

25) Explain the difference between genetic drift and gene flow.

26) What is the difference between pre and post zygotic isolation?

Questions for me?