DNA & PROTEIN SYNTHESIS UNIT – STUDY GUIDE FOR TEST :

* What does DNA stand for?
* What shape name is given to DNA and why?
* What the monomers (repeating units) of each DNA strand?
* What are the 3 parts of a DNA nucleotide? Draw and label parts of a nucleotide:
* What parts of DNA make up the “rungs “ of the DNA and what kind of bond is used here?
* What parts of DNA make up the “backbone” or sides of the DNA?
* Name the 2 scientists credited for discovering structure of DNA?
* What is the base-pair rule in DNA?
* What parts of DNA make up the “blueprint” or code of a gene?
* What is process DNA replication for and what organelle is involved?
* Identify 3 different enzymes involved in the process of DNA Replication and what their functions are?
* Describe Chargaff’s Rule and provide an example of how it is used:
* Why do we say DNA is semi-conservative?
* What is the process of Transcription for and what organelle is involved?
* What does mRNA, and tRNA stand for?
* What are 4 differences between mRNA and DNA?
* What are the 3 parts of a mRNA nucleotide?
* What enzyme is to initiate Transcription?
* What are the groups of 3 bases called on DNA, mRNA, and tRNA?
* What is the process of Translation for and what organelle is involved?
* What monomer does tRNA provide that is needed for Translation?
* What type of bond holds the amino acids together?
* What is another name for protein?
* What is a mutation?
* What are mutagens and some examples?
* Identify and differentiate between the different types of mutations?
* Know how to match DNA triplets with mRNA codons
* Know how to match mRNA codons with tRNA anticodons
* Know how to use the “square” and the “circle” codon chart for amino acid translation
* Be prepared to identify the parts of the Protein Synthesis diagram