**Bio 12 – Final Exam 2020 Chapter Reviews (Vocabulary and Key Concepts)**

**Chapter 10 Cell Growth and Division (10-2 and 10-3)**

**Section 10-2 and 10-3 Vocabulary**:

mitosis cytokinesis chromatid(s) chromatin

centromere centrosome M phase G1 (Gap 1 phase)

interphase cell cycle prophase centriole(s)

spindle(s) spindle fiber(s) S phase anaphase

metaphase telophase cyclin cancer

G2 (Gap 2 phase) growth rate cell plate/cell wall cell/plasma membrane

eukaryotic furrow original/mother cell DNA/protein

chromosomes daughter/sister cleavage furrow kinetochore

cell division carcinogens tumor gene p53

Key Concepts:

Main events of the cell cycle/regulation Four phases of mitosis Cancer cells (different)

**Meiosis and the Production of Gametes – 11-4**

Section 11-4 Vocabulary:

homologous diploid haploid meiosis tetrad(s) crossing-over

gametes/sex cells gonads oogenesis spermatogenesis gametogenesis

**DNA Structure and Replication – Section 12-1 to 12-3**

Section 12-1 Vocabulary

transformation bacteriophage nucleotide base pairing (A to T, C to G)

Key Concepts: Relationship between genes and DNA Overall structure of DNA (helix, etc.)

KEY CONCEPTS:

Relationship between genes and DNA Structure of DNA molecule

Section 12-2 Vocabulary

chromatin histone replication DNA polymerase

Key Concepts: DNA replication

Section 12-3 Vocabulary

gene messenger RNA (mRNA) ribosomal RNA (rRNA) transfer RNA (tRNA)

transcription translation RNA polymerase promoter (initiator)

intron exon codon anticodon

genetic code (Figure 12-17)

KEY CONCEPTS:

Three main types of RNA Transcription Translation

**Meiosis and the Production of Gametes – Section 11-4**

Section 11-4 Vocabulary:

homologous diploid haploid meiosis

tetrad crossing-over

KEY CONCEPTS:

Process of meiosis Meiosis vs Mitosis

**The Reproductive System – Section 39-3**

**Section 39-3 Vocabulary**

puberty scrotum seminiferous tubules epididymis

vas deferens urethra penis follicle

ovulation Fallopian tube/oviduct uterus vagina

ovary/ovaries testes/testis cervix

menstrual cycle corpus luteum menstruation sexually transmitted diseases

GnRH FSH/LH anterior pituitary negative feedback mechanism

KEY CONCEPTS:

Main functions of the male &female reproductive systems

Four phases of menstrual cycle