HS20 Final Review:
Unit 1 (Nutrition) – 35 m/c   **Unit 2** (Ch1, 2, 5) – 25 m/c   **Unit 3** (Ch6, 7, 8) – 25 m/c
Unit 5 – 85 m/c (Digestive – 25 m/c, Respiratory – 11 m/c, Cardiovascular – 23 m/c, Blood/Immune – 21 m/c, Lymphatic – 5 m/c, Kidney 12 m/c)

Unit 1 – Nutrition
Answer or define the following for each chapter:
Chapter 1 – Linking Food, Function, and Health
1.   Nutrition
2.   List the 5 types of health that contribute to wellness.
3.   What are the top 4 leading causes of death?
4.   List the 6 groups of essential nutrients including an example.
5.   Macronutrients – what are they? Provide 3 examples.
6.   What is the main function of carbohydrates?
7.   Why are fats important?
8.   What are the 4 main functions of proteins?
9.   What are the building blocks of proteins?
10. Define micronutrients.
11. Why must experiments be repeatable?
12. What is the placebo effect?

Chapter 2 – Designing a Healthful Diet
1.   List the 5 components that must be listed on a food label.
2.   **Use the food label to the right.**
     How large is a single serving?
     How many calories in a single serving?
     How many calories are in the entire box?
     How many calories would you consume if you ate 12 ounces of it?
     How many grams of fat are there per serving?
     How many grams of carbs are there per serving?
     How many grams of protein are there per serving?
     If you consumed 7 ounces how many grams of fat, carbs and protein are you consuming?
3.   Given that in order to maintain a given weight you have to balance your calories intake with your calorie/energy output, what must be the result of each of the following?
          Calorie Surplus –   Calorie Deficit –
4.   What is the difference between low and high nutrient density foods and high and low *Calorie* density foods?
5.   What are empty calories? Provide several examples.

Chapter 4 – Carbohydrates
1.   Glucose
2.   What are monosaccharides?
3.   List four examples of monosaccharides.
4.   What are disaccharides?
5.   List three examples of disaccharides.
6.   What is a complex carbohydrate?
7.   What is a polysaccharide?
8.   What is starch?
9.   What is glycogen?
10. What is dietary fiber?
11. How many kcal (Cal) does one gram of carbohydrates contain?
12. Define diabetes. Explain the difference between type 1 and type 2 diabetes.

Chapter 5 – Fats
1.   What is the difference between the two types of lipids (fats and oils)?
2.   What does a triglyceride consist of?
3.   What is a saturated fat?
4.   What is a monounsaturated fat?
5.   What is a polyunsaturated fat?
6.   What is a Trans Fatty Acid? Draw a Trans Arrangement.
7.   Fats provide energy. List three ways we use fat energy that we consume.
8.   List four other reasons (besides providing energy) that we need fats.

Chapter 6 – Proteins
1.   Protein
2.   Amino acids
3.   How many amino acids are there?
4.   What is an essential amino acid? How many are there?
5.   What is a non-essential amino acid?
6.   What is an incomplete protein?
7.   What is a complete protein?
8.   Explain the concept of complementary proteins.
9.   List seven reasons why your body needs protein.

Nutrition Facts

Serving Size: 3.5 oz
Servings Per Container about 4

Amount Per Serving

Calories 320

Calories from Fat 90

	% Daily Value
Total Fat 10g	15%
Saturated Fat 3.5g	18%
Trans Fat 1g	
Cholesterol 20mg	7%
Sodium 890mg	37%
Total Carbohydrate 44g	15%
Dietary Fiber 2g	8%
Sugars 4g	
Protein 13g	16%

Vitamin A 4%	●	Vitamin C 0%
Calcium 15%	●	Iron 15%

Chapter 11 – A Healthy Body Weight
1. What does Body Mass Index (BMI) represent?

2. What is the main problem with using body mass index (BMI) to assess health?
3. What does "body composition" mean?
4. What should be considered if determining if a person's body weight is healthful? (3 things)
5. What are the means of measuring body composition?
6. Which body shape (apple or pear) tends to be more associated with chronic diseases such as heart disease, diabetes, and high blood pressure?
7. What is the difference between energy intake and energy expenditure (often called TDEE - total daily energy expense).
8. Fill in the chart.

Energy Balance	What does it Mean	Result
Energy Deficit		
Energy Balance		
Energy Excess (Surplus)		

9. What is BMR (basil metabolic rate) refer to?
10. What are the possible drawback to liposuction?
11. What three key strategies should be included in designing your own weight loss plan?

Unit 2 – Chapters 1, 2, and 5 (Anatomy and Physiology)
Answer or define the following for each chapter:
Chapter 1 – Intro to Anatomy and Physiology
1. Define anatomy
2. Define physiology
3. Define disease
4. Define symptom
5. Define vital signs and list the 4 most commonly used.
6. Define diagnose
7. Define prognosis
8. Define homeostasis

Chapter 2 – The Human Body
1. Superior
2. Inferior
3. Anterior
4. Posterior
5. Medial
6. Lateral
7. Proximal
8. Distal
9. External
10. Internal
11. Superficial
12. Deep
13. Central
14. Peripheral

Chapter 5 – Tissues
* This chapter summarizes Unit 3 & Unit 4. Most of it should now be quite familiar. This is a good chapter to begin and end your studying with, as it is very structured and summative. It's good to read over the notes a few times and commit the finer points to memory (ex: "multiple layered epithelial cells are called *stratified*"; "the four main types of tissues are…"; "the skeletal system produces blood cells", etc.). Study the diagrams closely.

Unit 3 – Chapters 6, 7, and 8
Chapter 6 – The Skeletal System
Study the following sections in your notes: I – IV (joints – omit "E: movement classification").

Chapter 7 – The Muscular System
Study the following sections in your notes: I – IV.

Chapter 8 – The Integumentary System
Study the following sections in your notes: I – V.

*Note: Study all of the diagrams from each chapter.

Unit 5 – Digestive, Respiratory, Cardiovascular, Blood, Lymphatic Systems, and kidney.
Study all of the review question sheets and read carefully through the powerpoint notes. This unit is roughly 45% of the exam.