**Earth Science 11 Quiz Review: Stars and Universe**

**Quiz Learning Outcomes**:

1. I can explain how spectra are used to determine the temperature, composition and motion of a star.

2. I can explain a variety of methods for estimating the distance to stars.

3. I can define apparent magnitude, absolute magnitude and the luminosity of a star.

4. I can group starts using the Hertzprung-Russell diagrams.

5. I can outline the life cycles of stars.

**Format**:

- Questions types will include multiple-choice, short answer, matching and some diagrams.

**Content**:

-In the first half of the Space Unit we have completed the following note packages, labs and assignments. All of the following could appear on the quiz:

a) Stars

**Chapters, Topics and Key Words:**

A Closer Look at Light

-Electromagnetic Radiation: a) Light; b) Travels in waves; c) Electromagnetic Spectrum.

-Visible Spectra: a) Continuous Spectrum; b) Emission Spectrum; c) Absorption Spectrum.

-Doppler Effect: a) Blueshift; b) Redshift.

Stars and Their Characteristics

-Star Temperature and Colour: a) What these qualities reveal about a star; b) How these characteristics are influenced by a star’s composition, temperature, mass and size.

-Apparent Magnitude: a) Definition; b) Characteristics of the scale; c) Flaws with.

-Luminosity: a) Definition.

-Absolute Magnitude: a) Definition; b) Characteristics of the scale; c) Effectiveness compared to Apparent Magnitude.

Life Cycle of Stars,

-Hertzsprung-Russell Diagram: a) Definition; b) Be able to label the position of main star groups (main sequence, blue supergiants/giants, red supergiants/giants, white dwarfs,

red dwarfs) and understand what this indicates about their characteristics.

-Nebula: a) Definition.

-Death of main sequence stars: a) Understand the steps in the death of a star like our sun.

-Death of a massive star: a) Understand the steps in the death of a star more than eight times our sun.

-Neutron Star: a) Definition.

-Black hole: a) Definition; b) Understand its role in active galaxies.