**KOTEBE BIRHANE HIWOT SCHOOL MIDDLE level SCHOOL 2ND SEMESTER GENERAL SCIENCE 3rd MODEL EXAMINATIONS FOR GRADE 8**

**MAY, 2017 E.C/2025 G.C**

**NUMBER OF QUESTIONS: 40 TIME ALLOWED: - 1 HOUR**

**DIRECTION**

**I: CHOOSE THE CORRECT ANSWER FROM THE GIVEN ALTERNATIVES AND WRITE YOUR ANSWER ON THE ATTACHED SEPARATED ANSWER SHEET (1 POINT EACH).**

1. Which one of the following quantities is a fundamental quantity?
2. Mass
3. Volume
4. Density
5. Force
6. Which one the following is the correct order of the steps in the scientific methods?

A. Ask a question, analyze results, make a hypothesis, test the hypothesis, and draw conclusions, communicate results.

B. Make a hypothesis, test the hypothesis, analyze the results, ask a question, draw conclusions, and communicate results.

C. Ask questions, make a hypothesis, test the hypothesis, analyze results, draw conclusions and communicate results.

D. Ask questions, make a hypothesis, test hypothesis, draw conclusions, analyze results and communicate results.

1. An atom Ca2+ Contains:

A. 20 protons, 40 neutrons, 22 electrons

B. 20 protons, 20 neutrons, 18 electrons

C. 40 protons, 20 neutrons, 20 electrons

D. 20 protons, 18 neutrons, 20 electrons

1. Which one of the following is a diatomic molecule?

A. Xenon

B. Hydrogen

C. Sodium

D. Sulfur

1. Which of one of the following formula represents an Alkene, Alkyne and Alkane containing four carbon atoms respectively?

A. C4H10, C4H8, C4H6

B. C4H6, C4H8, C4H10

C. C4H10, C4H8, C4H6

D. C4H8, C4H6, C4H10

1. Which of the following is **NOT** the characteristic of an acid?

A. An acid has a bitter taste

B. An acid produces hydronium ions in water

C. An acid ionizes in water

D. An acid changes the color of an indicator

1. Which one of the following compounds reduces the acidity of the soil?

A. HClPO4

B. CaO

C. NaCl

D. NH3

1. The dental formula of a sheep is 0/3, 0/1, 3/3, 3/3. How many canine teeth are there in a sheep?

A. 2

B. 16

C. 32

D. 1

1. Which one of following is part of a respiratory organ?

A. Stomach

B. Large intestine

C. Trachea

D. Liver

1. Which of the following blood vessels carry oxygenated blood from heart to body?

A. Vein

B. Artery

C. Venacava

D. Capillaries

1. Which one of the following is the female secondary sexual characteristic?

A. Larynx enlarges

B. Shoulder and chest broaden

C. The presence of ovary

D. Start of menstruation

1. The interaction in which one species benefits and the other is neither harmed nor benefited is

A. Commensalism

B. Mutualism

C. Parasitism

D. Competition

1. Which of the following is the correct sequence of organisms in a food chain?
2. Grass Mouse Hawk Snake
3. Grass Snake Mouse Hawk
4. Hawk Snake Grass Mouse
5. Grass Mouse Snake Hawk
6. Land management practice that involves land leveling and building in a stepwise fashion on hill slopes is \_\_\_\_.

A. Crop rotation

B. Terracing

C. Contour ploughing

D. Deforestation

1. Which one of the following is among an **In-situ** biodiversity conservation mechanism?

A. Seed Banks

B. Establishing Sanctuaries

C. Botanical Gardens

D. Establishing a Zoo

1. In which of the following soil types is the most fertile soil?

A. Clay soil

B. Silt soil

C. Sand soil

D. Loam soil

1. The third planets from the sun is\_\_\_\_\_\_\_.

A. Mars

B. Venus

C. Earth

D. Jupiter

1. Our planet Earth has a unique characteristic among all other planets in that it is the only

A. Place where temperature is low

B. Place where oxygen exists.

C. Planet that support life.

D. Planet that has rocky surface.

1. Which one of following planet is also known as Red planet?

A. Mars

B. Saturn

C. Venus

D. Pluto

1. What is the branch of science that studies living organisms and their interaction?

A. Biology

B. Chemistry

C. Physics

D. Psychology

1. Which one of the following is **NOT true about** laboratory safety rules?

A. When smelling a substance, do not hold it very near the nose.

B. Add water into concentrated acid

C. Eye protection should be worn for all experiments.

D. Use specified or small amount of substance in reactions to avoid wastage.

1. Which of the following has **NO** definite shape and volume?

A. Oxygen

B. Water

C. Iron

D. Mercury

1. The volume of mercury is 25ml and has a mass of 340g. What is the density of mercury?

A. 2.7g/ml

B. 136g/ml

C. 27g/ml

D. 13.6g/ml

1. Which of the following statements describes a Chemical property?

A. Solubility of salts

B. Aluminum is a light metal

C. Conductivity

D. Zink displaces hydrogen from dilute HCl

1. Pure substances which **CANNOT** be separated into simpler substances by chemical means are known as---------

A. Elements

B. molecules

C. Mixtures

D. Compounds

1. Which of the following is an example of chemical change?

A. Grinding rock salt

B. Heating candle wax

C. Souring milk

D. Evaporation of sea water

1. A mixture of sand and water can be separated by the process of \_\_\_

A. Magnetic separation

B. Evaporation

C. Filtration

D. Simple distillation

1. Which of the following is the chemical formula of aluminum nitride?

A. AlN

B. Al3N2

C. Al5N3

D. AlN3

1. The balanced chemical equation for the reaction of Iron (III) + chloride Iron (III) chloride is:

A. Fe +Cl2 FeCl2

B. 2Fe + 3Cl2 2FeCl3

C. 4Fe + Cl2 2Fe3Cl

D. Fe +Cl2 FeCl3

1. If the magnifying power of the ocular lens is 15X and that of the objective lens is 10X, what is the total magnifying power of the microscope?

A. 2X

B. 150X

C. 25X

D. 5X

1. Which of the following organelle of a cell is known as the power house in the cell?

A. Chloroplast

B. Endoplasmic reticulum

C. Mitochondria

D. Cell Membrane

1. Which of the following is **NOT** the requirement of photosynthesis?

A. Carbon dioxide

B. Sunlight

C. Water

D. Oxygen

1. The ability to interbreed in nature and produce fertile offspring is the characteristic of members of a single is known as:

A. Order

B. Phylum

C. Family

D. Species

1. Which of the following features is true about the division angiosperm? It contains:

A. Non-vascular plants

B. Conifer plants

C. Flowering plants

D. Naked seed plants

1. In which groups do you find mushrooms?

A. Plants

B. Fungi

C. Protista

D. Animals

1. The outermost and thinnest layer of Earth’s structures is the\_\_\_\_\_\_.

A. Crust

B. Mantle

C. Core

D. Hemisphere

1. The seasonal changes are the results of earth’s \_\_\_\_\_\_\_\_.

A. Revolution

B. Rotation

C. Linear motion

D. Oscillation

1. The Force that pulls objects toward Earth is Called:\_\_\_\_\_\_\_

A. Mass

B. Air

C. Wind

D. gravity

1. Which one of the following is **NOT** a form of energy?

A. Weight

B. Sound

C. Light

D. Kinetic

1. What type of energy is derived from heated groundwater?

A. Solar

B. Hydroelectric energy

C. Geothermal energy

D. Nuclear energy