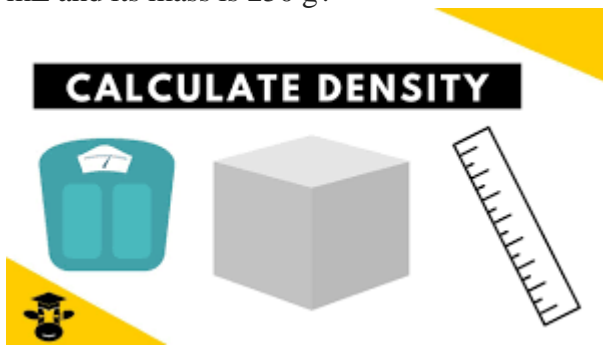


Category 4 (Grades 9th-10th)

1. What is the density of a liquid if its volume is 125 mL and its mass is 250 g?



- A) 2 g/mL
- B) 175 g/mL
- C) 0.4 g/mL
- D) 6250 g/mL

2. Put the liquids in order from least dense to most dense?



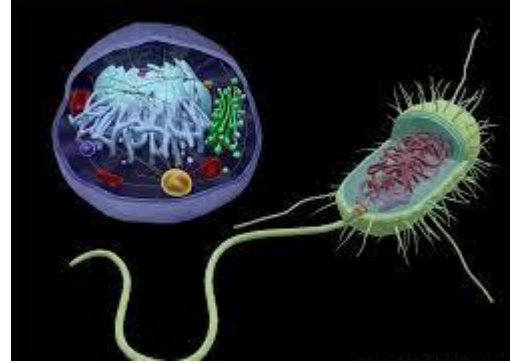
- A) 4, 3, 2, 1
- B) 1, 2, 3, 4
- C) 3, 4, 2, 1
- D) 4, 3, 1, 2

3. Which of the following represents a correct chemical formula?



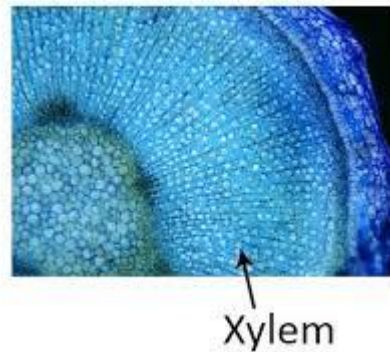
- A) BiPO₄
- B) NaSO₄
- C) NaS
- D) CaCl

4. Eukaryotes include fungi, plants, animals, and.....



- A) Bacteria
- B) Protists
- C) Archaeobacteria
- D) Eubacteria

5. What is the function of xylem tissue?



- A) Transports water and minerals salt
- B) Control the opening and closing of stoma
- C) Carry out photosynthesis
- D) Provide support for young plant

6. What are the classification of organisms?



- A) Kingdom, Phylum, Class, Order, Family, Genus, and Species
- B) Phylum, Kingdom, Genus, Species, Order, Class and Family
- C) Species, Phylum, Class, Order, Family, Genus, and kingdom
- D) Class, Famil , Phylum, kingdom, Species, and Order

7. If a lizard can run 64 m across the water in 8 seconds, how fast is he traveling?



- A) 32 m/s
- B) 8 meter
- C) 8 m/s
- D) 34 m/s

8) A peach falls from a tree because of the gravitational attraction between the earth and the peach. If F1 is the magnitude of the force exerted by the earth on the peach and F2 is the magnitude of the force exerted by the peach on the earth, then



- A) F1 is very much greater than F2
- B) F2 is very much greater than F1
- C) F1 and F2 are equal
- D) F1 is only a little greater than F2

9) A student turns on flashlight. What is the energy conservation that happen there?



- A) chemical - light - electrical
- B) electrical - chemical - light
- C) chemical - electrical - light
- D) light - chemical - electrical

10. Diseases that last for only short period of time are called _____



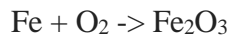
- A) Chronic disease
- B) Acute disease
- C) Infectious disease
- D) Non-infectious disease

11. What is the process of growing two or more crops in a definite pattern?



- A) Crop rotation
- B) Inter-cropping
- C) Mixed cropping
- D) Organic cropping

12. Which of the following shows the correct way to balance the chemical equation?



- A) $4\text{Fe} + 3\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3$
- B) $2\text{Fe} + 3\text{O}_2 \rightarrow \text{Fe}_2\text{O}_6$
- C) $4\text{Fe} + \text{O}_6 \rightarrow 2\text{Fe}_2\text{O}_3$
- D) None of the options are correctly balanced

13. Which list of salts are all insoluble in water?



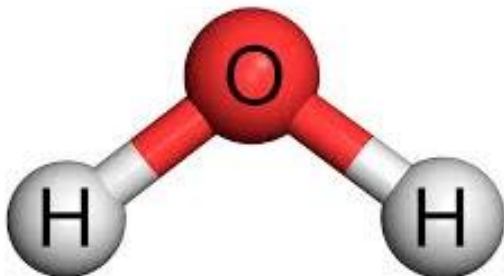
- A) Lead sulfate, copper carbonate, silver chloride
- B) Copper sulfate, sodium carbonate, potassium chloride
- C) Sodium sulfate, ammonium carbonate, magnesium chloride
- D) Potassium sulfate, potassium carbonate, copper chloride

14. Which color identifies as the group non-metals?

H																	He	
Li	Be											B	C	N	O	F	Ne	
Na	Mg											Al	Si	P	S	Cl	Ar	
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr	
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe	
Cs	Ba		Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn	
Fr	Ra		Rf	Db	Sg	Bh	Hs	Mt										
		La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu		
		Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr		

- A) Dark Blue Color
- B) Violet
- C) Sky Blue Color
- D) Pink

15. What would you name this molecule?



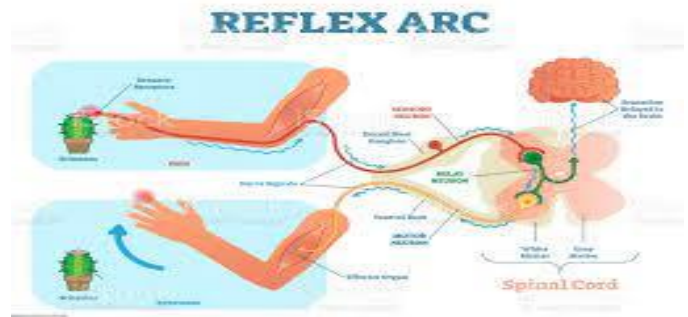
- A) Water
- B) Salt
- C) Acid
- D) Base

16. Which is the correct sequence –



- A) mouth → stomach → small intestine → oesophagus → large intestine
- B) mouth → oesophagus → stomach → large intestine → small intestine
- C) mouth → stomach → oesophagus → small intestine → large intestine
- D) mouth → oesophagus → stomach → small intestine → large intestine

17. Which is the correct sequence of the components of a reflex arc?



- A) Receptors, spinal cord, sensory neuron, motor neuron, muscle
- B) Receptors, muscle, sensory neuron, motor neuron, spinal cord
- C) Receptors, sensory neuron, spinal cord, motor neuron, muscle
- D) Receptors, motor neuron, spinal cord, sensory neuron, muscle

18. What is genetics?



- A) A branch of biology that deals with evolution.
- B) A branch of biology that deals with membranes.
- C) A branch of biology that deals with hypothesis.
- D) A branch of biology that deals with heredity and variation of organisms

19. The image formed in a flat mirror is



- A) Larger than the object and farther away.
- B) Reduced and closer to the mirror.
- C) a real image of the object.
- D) equal to the height and distance of the object.

20. Why does the lower part of the child appear so much different in size from the upper part?



- A) The light rays that travel through water and then into air are refracted.
- B) The light rays that travel through water and then into air are enlarged.
- C) The light rays that travel through air and then into water are reflected.
- D) The light rays that travel through air and then into water are reduced.

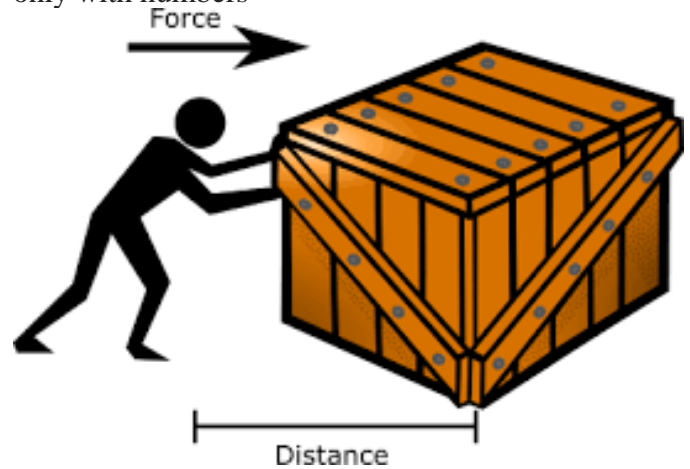
21. What is resistance measured in?



22. The ability to do work is called



23. You move a 12 N object 12 meters in 4 seconds. How much power have you generated in Watt? Write only with numbers



24. Finish of the following chemical reaction equation:







Copper carbonate + hydrochloric acid = Carbon Dioxide + copper chloride + ___?___.

Answer consist of single word

Types of Chemical Reaction



25. What genotype completes the punnet square in the question mark?

		 pollen ♂	
		B	b
 pistil ♀	B	 BB	 Bb
	b	 Bb	 ?