TOSS-UP

1. EARTH SCIENCE; Multiple Choice: What is a narrow strip of land connecting two bigger portions of land?

(W) Strait

(X) Cape

(Y) Sound

(Z) Isthmus

ANSWER: Z - ISTHMUS

BONUS

1. EARTH SCIENCE; Short Answer: What is a narrow inlet that extends from a larger body of water into land?

ANSWER: ARM

TOSS-UP

1. GENERAL; Multiple Choice: With what is the autoclave designed to be sterilized?

(W) dessication

(X) helium gas

(Y) steam and pressure

(Z) methane gas

ANSWER: Y – STEAM AND PRESSURE

BONUS

2. GENERAL; Short Answer: What does a cryometer measure?

ANSWER: LOW TEMPERATURE

TOSS-UP

1. BIOL; Multiple Choice: Which of the following is not a primary tissue type?

(W) Connective

(X) Muscle

(Y) Epithelium

(Z) Cardiac

ANSWER: X - CARDIAC

BONUS

3. BIOL; Short Answer: List the primary germ layers.

ANSWER: ECTODERM, MESODERM, ENDODERM (in no particular order)

TOSS-UP

1. GENERAL; Multiple Choice: Which layer of the atmosphere is the coldest layer?

(W) Troposphere

(X) Mesosphere

(Y) Thermosphere

(Z) Stratosphere

ANSWER: X – Mesosphere

BONUS

4. GENERAL; Short Answer: What lab equipment is used specifically to heat small quantities to very high temperatures?

ANSWER: CRUCIBLE

TOSS-UP

1. GENERAL; Multiple Choice: Which type of cells of the bone maintains bone as a healthy living tissue?

(W) Osteocyte

(X) Lacunae

(Y) Osteoblast

(Z) Lamellae

ANSWER: W – OSTEOCYTE

BONUS

5. GENERAL; Short Answer: Which muscle originates from the sternum and inserts into the clavicle and mandible?

ANSWER: STERNOCLEDIMASTOID

TOSS-UP

1. EARTH SCIENCE; Multiple Choice: Which type of currents develops when the waves are not hitting the beach perpendicularly?

(W) Upwelling

(X) Deep Water Currents

(Y) Longshore Current

(Z) Gyres

ANSWER: Y – Longshore Current

BONUS

6. EARTH SCIENCE; Short Answer: What are potentially dangerous effects of the longshore currents which occur when the longshore currents are parallel to the beach and bounce seaward?

ANSWER: RIP CURRENTS (ALSO ACCEPT RIP TIDES)

TOSS-UP

1. BIOL; Short Answer: What are neuroglial cells wrapping around capillaries to prevent neurons from coming in contact with blood vessels?

ANSWER: ASTROCYTES

BONUS

7. BIOL; Short Answer: Which cranial meninge is the deepest layer, filling every contour of the brain?

ANSWER: PIA MATER

TOSS-UP

1. EARTH SCIENCE; Multiple Choice: Which type of wind drives large surface currents year round?

(W) Trade winds

(X) Global winds

(Y) Zephyr

(Z) Chinook

ANSWER: W – TRADE WINDS

BONUS

8. EARTH SCIENCE; Short Answer: Which trade winds are located in the highest latitudes?

ANSWER: POLAR EASTERLIES

TOSS-UP

1. GENERAL; Multiple Choice: Which one of the following gases is not one of the three major gases by volume that make up the air?

(W) Argon

(X) Nitrogen

(Y) Oxygen

(Z) Helium

ANSWER: Z – HELIUM

BONUS

9. GENERAL; Short Answer: Which atmospheric layer starts at around 16 kilometers from the surface of the Earth?

ANSWER: STRATOSPHERE

TOSS-UP

1. BIOL; Multiple Choice: Which of the following structures of the cell has a membrane?

(W) Centrosome

(X) Mitochondrion

(Y) Ribosome

(Z) Cytoskeleton

ANSWER: X - MITOCHONDRION

BONUS

1. BIOL; Short Answer: How many membranes does the mitochondrion have?

ANSWER: TWO

TOSS-UP

1. GENERAL; Multiple Choice: How much data can a normal CD-ROM hold?

(W) 650 MB

(X) 700 MB

(Y) 750 MB

(Z) 800 MB

ANSWER: W – 650

BONUS

1. GENERAL; Short Answer: The global address of resources on the World Wide Web is called…

ANSWER: URL

TOSS-UP

1. GENERAL; Multiple Choice: What is the function of the extensor digitorum?

(W) adducts fingers

(X) extends wrist

(Y) extends fingers

(Z) adducts thumb

ANSWER: Y – EXTENDS FINGERS

BONUS

12. GENERAL; Short Answer: What is the circular muscle around the eye called?

ANSWER: ORBICULARIS OCULI

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TOSS-UP

1. GENERAL; Multiple Choice: Which of the following is the largest inland body of water on Earth?

(W) Lake Michigan

(X) Lake Tahoe

(Y) Black Sea

(Z) Caspian Sea

ANSWER: Z – CASPIAN SEA

BONUS

13. GENERAL; Short Answer: Which lake is the deepest in the world?

ANSWER: LAKE BAIKAL

TOSS-UP

1. GENERAL; Multiple Choice: Who was the first man to orbit the Earth from outer space??

(W) Neil Armstrong

(X) Yuri Gagarin

(Y) John Glenn

(Z) Konstantin Tsiolkovsky

ANSWER: X – LAKE BAIKAL

BONUS

14. GENERAL; Short Answer: Which physicist discovered that a wave’s frequency changes when the source and the observer are in motion relative to one another?

ANSWER: CHRISTIAN DOPPLER

TOSS-UP

1. GENERAL; Multiple Choice: What year was the ENIAC computer turned on for the first time?

(W) 1946

(X) 1943

(Y) 1949

(Z) 1941

ANSWER: W – 1946

BONUS

15. GENERAL; Short Answer: What does the acronym ENIAC stand for?

ANSWER: ELECTRICAL NUMERICAL INTEGRATOR AND CALCULATOR

TOSS-UP

1. EARTH SCIENCE; Multiple Choice: Which pyroclastic particles range in size from 2 mm to 64 mm in diameter?

(W) Lapilli

(X) Volcanic ash

(Y) Ignimbite

(Z) Tephra

ANSWER: W – LAPILLI

BONUS

1. EARTH SCIENCE; Short Answer: What volcanic hazard takes the form of a fast moving gaseous cloud of hot ashes and other materials thrown out from an erupting volcano?

ANSWER: NUÉE ARDENTE

TOSS-UP

1. EARTH SCIENCE; Short Answer: What is the full name for the boundary between the crust and the mantle?

ANSWER: MOHOROVICIC DISCONTINUITY

BONUS

17. EARTH SCIENCE; Short Answer: In which mechanical layer of the Earth are the plate tectonics located??

ANSWER: LITHOSPHERE

TOSS –UP

1. GENERAL; Short Answer: What is pollination by birds called?

ANSWER: ORNITHOPHILY

BONUS

18. GENERAL; Short Answer: What is the word meaning “pollination by wind”?

ANSWER: ANEMOPHILY

TOSS-UP

1. BIOL; Multiple Choice: Which of the following hormone-secreting organs do NOT have significant endocrine cells?

(W) Pancreas

(X) Kidneys

(Y) Thymus

(Z) Gonads

ANSWER: X - KIDNEYS

BONUS

19. BIOL; Short Answer: Which hormone-secreting organ is the only organ in the human body built from two individuals?

ANSWER: PLACENTA

TOSS-UP

1. GENERAL; Short Answer: What does the prefix “zepto” mean?

ANSWER: ONE SEXTILLIONTH (ALSO ACCEPT: 10-21)

BONUS

20. GENERAL; Short Answer: The word “atom” is derived from a word from what language, meaning “indivisible”?

ANSWER: GREEK

TOSS-UP

1. BIOL; Short Answer: Which digestive organ is around 20 feet long in cadavers but only 12 feet long in live humans?

ANSWER: SMALL INTESTINE

BONUS

21. BIOL; Short Answer: In the digestive tract, in which organ must the food being digested be located for it to be considered chyme?

ANSWER: STOMACH

TOSS-UP

1. GENERAL; Multiple Choice: What is acarology?

(W) Study of airborne organisms

(X) Study of mites

(Y) Study of grasses

(Z) Study of precious metals

ANSWER: X – STUDY OF MITES

BONUS

22. GENERAL; Short Answer: What word means “the study of ulcers”?

ANSWER: HELCOLOGY

TOSS-UP

1. GENERAL; Short Answer: Which state in the United States contains the most amount of windmills?

ANSWER: TEXAS

BONUS

23. GENERAL; Short Answer: In which month is the Earth closest to the Sun?

ANSWER: JANUARY

TOSS-UP

1. GENERAL; Multiple Choice: What is the point where the Earth is closest to the Sun called?

(W) Perihelion

(X) Aphelion

(Y) Perigee

(Z) Apogee

ANSWER: W – PERIHELION

BONUS

24. GENERAL; Short Answer: What do scientists call the point where a heavenly body or an object in outer space is the farthest from the Earth?

ANSWER: APOGEE

TOSS-UP

1. EARTH SCIENCE; Multiple Choice: Which of Hawaii’s islands is the youngest?

(W) Hawaii

(X) Kauai

(Y) Maui

(Z) Oahu

ANSWER: W - HAWAII

BONUS

25. EARTH SCIENCE; Short Answer: Which of Hawaii’s islands is the oldest?

ANSWER: KUAI