

2023 Reinstein Set – Packet 8

Tossups

1. A small **genus [JEE-nus]** of **rheas [REE-uhz]** was named after this person after he realized he was eating one rather than a young rhea. This scientist was criticized by Antoinette Blackwell both before and after he wrote “Thus man has ultimately become superior to woman.” That statement was made in a book by this writer which also stated that all races of humans belong to the same species and which made several mentions of Alfred Russel Wallace. That book by this person was *The Descent of Man*. Name this scientist who famously traveled on the HMS *Beagle* and who wrote *On the Origin of Species*, which described his theory of evolution.

Answer: Charles (Robert) **Darwin**

2. There was international coverage when this person traveled to Anchorage, Alaska in 1971 to meet with President Richard Nixon, and he followed that by meeting with leaders in Europe. An attempt to either increase this leader’s power or replace him was made during the February 26 Incident, during which this leader did not accept resignations from government officials. This leader’s Humanity Declaration, stating that he was not divine, was released on January 1, 1946. This leader was succeeded by his son, Akihito, and he was the grandson of the Meiji Emperor. Name this emperor of Japan during World War II whose reign lasted from 1926 to 1989.

Answer: (Michinomiya) **Hirohito** [or the **Showa** emperor]

3. One of the best known participants in this sport was **Conchita Cintrón [kohn-CHEE-tah seen-TROHN]**, who was arrested in 1949 for performing this sport in a way that only men were allowed to do. In modern times, activists claim that the European Union common agricultural policy subsidizes this sport despite claims made by the European Union. In a novel, Romero performs in this sport after being beaten up by Robert after both men are interested in Lady Brett Ashley. That novel, *The Sun Also Rises*, is one of several novels by Ernest Hemingway featuring this sport. Name this sport performed by matadors or toreros against large animals.

Answer: **bullfighting** [accept **toreo** before “torero”]

4. At the end of one story by this writer, Jupiter says “You have what you asked for, so you have only yourselves to blame for your misfortunes.” Jupiter says those words in a story by this writer after sending a log and then a crane to be the king of the frogs. Another story by this writer is considered the source of the expression “sour grapes” and is about a fox who repeatedly jumps in an attempt to eat some grapes. Another story by this writer is sometimes ended with the phrase “perseverance wins” or the Biblical phrase “The race is not to the swift”, though that moral probably was written after this writer lived. Name this ancient Greek writer of “The Tortoise and the Hare” and many other fables.

Answer: **Aesop** [EE-sahp] [or **Aesopos**]

5. This artist wrote on the back of one painting “Not the least hope remains to me.” In that work, an easel is used to hold up disgusting food which has a tube connecting it to a person’s mouth. This artist painted *Without Hope* and a work showing a bird lying upside-down on a small tree, a building coming out of a volcano, and two feet at the end of a bath. Another painting by this artist includes the body of a deer with nine arrows stuck in it, and the face of the deer is actually this artist’s face. Name this Mexican painter of *What the Water Gave Me* whose many self-portraits include *The Wounded Deer*.

Answer: (Magdalena) Frida **Kahlo** (y Calderón)

6. The subject of one poem by this writer is “on the skirts of Bagley Wood” and “waiting for the spark from heaven to fall”. That was one of the two poems by this writer quoted in the **Ralph** [rayf] Vaughan Williams work *An Oxford Elegy*. Another poem by this writer describes the “grating roar of pebbles” which “begin, and cease, and then again begin.” In that poem, this person wrote that the world “Hath really neither joy, nor love, nor light, nor certitude, nor peace, nor help for pain”. This poet ended that poem “Where ignorant armies clash by night.” Name this poet who wrote “The Scholar-Gipsy” and “Dover Beach”.

Answer: Matthew **Arnold**

7. The cold-water versions of these features, such as the one near Green River, Utah, are caused by carbon dioxide. The layers that form near these features and are named for them are sometimes called **siliceous** [suh-LISH-uss] sinter. Most of these features are in the United States or on the Kamchatka Peninsula. These features differ from hot springs because these objects have eruptions that last for a few seconds to a few minutes. Name these geologic features, many of which are in Yellowstone National Park, including Old Faithful.

Answer: **geysers** [prompt on **hot springs** before “hot”]

8. A company in this novel uses the slogan “If It’s Optic White, It’s the Right White.” In this novel, that slogan is used at Lucius Brockway’s employer, Liberty Paints. After being injured at the paint factory, this novel’s protagonist asks whether the hospital director knows Mr. Norton or Dr. Bledsoe, which is a reference to the college the narrator got kicked out of. The narrator of this novel received a scholarship to that college after trying to pick up coins from an electrified rug and participating in a battle royal. Name this novel addressing African-American identity and written by Ralph Ellison.

Answer: ***Invisible Man*** [do not accept “The Invisible Man”]

9. This compound reacts with **acetic** [uh-SEE-tik] acid to form sodium **acetate** [ASS-ih-tayt], water, and carbon dioxide. Though the American Dental Association does not approve, some people use this compound in water to brush their teeth, which whitens them. Because of a marketing campaign by Arm & Hammer, it is common to put an open box of this compound in refrigerators. Name this compound of sodium, hydrogen, carbon, and oxygen that releases carbon dioxide when exposed to an acid, which is why it is commonly used as a leavening agent.

Answer: **baking soda** or **sodium bicarbonate** or **sodium hydrogen carbonate** [or **NaHCO₃**; accept **bicarbonate of soda**; do not accept “baking powder”]

10. This person was sworn in as Chief of Staff of the U.S. Army on the same day that Germany invaded Poland to start World War II. In that position, this person heavily promoted Dwight Eisenhower—who eventually succeeded him—and Operation Overlord. After the war ended, this person tried to prevent a civil war in China and then successfully organized a plan to stop communists in Greece and Turkey, which was the basis of the Truman Doctrine. This person was eventually given a Nobel Peace Prize for his work as secretary of state, especially for giving economic aid to recovering countries. Name this person known for the European Recovery Program.

Answer: George C(atlett) **Marshall** (Jr.)

11. During the last 10 days of the year, members of this religion honor the dead by celebrating **Frawardigan** [fruh-war-dee-GAHN]. The six feasts in this religion that do not happen on the new year are the **gahanbars** [guh-HAHN-barz]. When approaching adulthood, members of this religion are given a **sudreh** [SUH-druh] and **kushti** [KUSH-tee], which are a sacred shirt and cord used to remember the creed “Good Words, Good Thoughts, and Good Deeds.” The 17 hymns attributed to the founder of this religion are the **Gathas** [GAH-thuz]. Members of this religion worship Ahura Mazda and read the Avesta. Name this monotheistic religion that started in what is now Iran about 3500 years ago.

Answer: **Zoroastrianism**

12. This structure contains **polysaccharides** [“poly-SACK-uh-rides”] that are arranged into hexagonal rosettes that can spin. This structure often contains a lot of **xylan** [ZY-lan]. The primary compound in these structures is also the primary compound in cotton. The outer layer of these things contain many pectins and are called the middle **lamella** [luh-MEL-luh]. In wood and bark, these structures contain **lignin** [LIG-nin]. The ability of these structures to prevent outflow allows for the build-up of turgor pressure. Name these structures that do not exist in animals but that are the outermost part of plant cells.

Answer: **cell walls**

13. After being fired from this state’s supreme court for opposing Reconstruction, Richard Coke became its governor and one of its U.S. senators. The Iran-Contra investigation ordered by President Ronald Reagan was headed by this state’s former senator John Tower. The 1988 running mate of Michael **Dukakis** [doo-KAH-kis] was this state’s Senator Lloyd Bentsen. The Senate Majority Leader for most of the late 1950s, who was the subject of a set of biographies by Robert **Caro** [KAY-roh] and who left the Senate to become vice president, was this state’s Lyndon B. Johnson. Name this state represented in the Senate more recently by John Cornyn and Ted Cruz.

Answer: **Texas**

14. One poem by this writer states “Ill fares the land, to hastening ills a prey, where wealth accumulates, and men decay.” This writer began that poem with the words “Sweet Auburn” addressed to the title location. In a novel by this author, Mr. Jenkinson adds to the misery of the protagonist by making him think that Olivia is dead, and several of the characters are surprised to learn that Olivia’s marriage to Squire Thornhill is valid. This author wrote that novel about the bankruptcy of Charles Primrose. Name this 18th-century Anglo-Irish writer of *The Deserted Village* and *The Vicar of Wakefield*.

Answer: Oliver **Goldsmith**

15. This country is the location of Chisanga Falls, which is in the eastern part of Nyika [NEE-kuh] National Park. Some ancient history of this country's Chewa people is recorded in the Chongoni [chon-GOH-nee] Rock Art Area. This country contains the Viphya [VIFF-yuh] Mountains, which surround the city of Mzuzu [em-ZOO-zoo]. The south part of this country includes most of Lake Chilwa and the city of Blantyre [BLAN-"tire"]. The north half of this country is between Zambia and Tanzania [TAN-zuh-nee-uh], and the south half of this country is surrounded by Mozambique. The lake that shares its name with this country is also called Lake Nyasa [NY-ah-suh]. Name this country whose capital is Lilongwe [lih-LAWN-gway].

Answer: (Republic of) Malawi [or (Dziko la) Malawi]

16. In southern France, an attempt to take advantage of this process is being built, called ITER [EE-tur]. This process releases energy for elements with a lower atomic number than nickel. The magnetic confinement type of this process confines plasma in the shape of a torus by using a tokamak [TOH-kuh-mak]. This process was not used in Little Boy or Fat Man, but it is used in thermonuclear weapons, which used to be called hydrogen bombs. Two very common examples of this reaction are the CNO cycle and the proton-proton chain reaction in stars. Name this type of reaction in which two nuclei are combined.

Answer: nuclear fusion (reaction) [prompt on nuclear reaction before "Little Boy"; do not accept "fission"]

17. One poem by this writer begins "I saw him once before, as he passed by the door." That poem, which ends with the narrator hoping that people will smile if he lives as long as the poem's subject, is "The Last Leaf". Another poem by this writer states "Thanks for the heavenly message brought by thee, child of the wandering sea." This poet began the last stanza of that poem with the lines "Build thee more stately mansions, O my soul, As the swift seasons roll!". Another poem by this writer, which begins "Aye tear her tattered ensign down, Long has it waved on high", is sometimes credited for preventing a famous ship from being decommissioned. Name this poet who wrote "The Chambered Nautilus" and "Old Ironsides".

Answer: Oliver Wendell Holmes Sr.

18. This person was named after the tyrant of Sicyon [SISS-ee-ahn], who was his maternal grandfather. Cleomenes [klee-AH-muh-neeZ] I of Sparta helped Isagoras [“eye”-SAG-uh-russ] take control from this leader, but this leader had enough popular support to allow him to gain back power after returning from exile. This ruler replaced the four-tribe system that was based on family with a 10-tribe system based on location. According to Aristotle, this ruler instituted the Athenian policy of ostracism. This leader, who extended the democratic reforms of Solon [SOH-lun], was the great uncle of Pericles. Name this “father of Athenian democracy”.

Answer: Cleisthenes

19. The distance matrix named for this person has zeroes along the main diagonal and squares of differences everywhere else. The type of inner product named for this person is equivalent to the dot product. A statement called “[this person’s] lemma” or “[this person’s] theorem” states that if a prime number divides a product, then it divides at least one of the factors. Another statement called “[this person’s] theorem” is that there are infinitely many prime numbers. This person’s parallel postulate is assumed in the forms of geometry named for him. Name this ancient Greek mathematician who wrote the *Elements*.

Answer: Euclid [YOOK-lid] (of Alexandria)

20. This instrument is the lead instrument in a set of pieces broken down into five “Joyful Mysteries”, five “Sorrowful Mysteries”, and five “Glorious Mysteries”. Those pieces for this instrument, sometimes called the *Copper-Engraving Sonatas* or *Rosary Sonatas*, are by Heinrich Biber [BEE-bur]. Pablo de Sarasate performed on this instrument, which is not an organ, for the premiere of *Introduction and Rondo Capriccioso* [kah-pree-CHOH-zoh] by Camille Saint-Saëns [san sawn]. Sarah Chang, Hilary Hahn, and Joshua Bell primarily play this instrument. A standard string quartet has two of these instruments. Name this string instrument pitched higher than the viola.

Answer: violin

21. One way to evaluate this function on x is to make segments of lengths x and one, combine them to make the diameter of a circle, then drop a perpendicular from the circle to where those segments are joined. In the normal distribution function, this function is applied to 2π in the denominator. Applying this function is the last step to finding the quadratic mean or to finding the standard deviation of a set of numbers. To find the geometric mean of two numbers, apply this function to their product. The graph of this function of x is half of a rightward-opening parabola. Name this function equivalent to raising to the one-half power.

Answer: **square root** [prompt on **radical**; before “one-half”, accept raising to the **one-half power** or raising **to the one-half**; accept answers that additionally mention x]