2023 Reinstein Set – Packet 2

Tossups

1. In 1948, this country's presidential candidate Jorge Eliécer Gaitán [HOR-hay eh-lee-AY-sir gy-TAHN] was assassinated, leading to an unstable decade in which hundreds of thousands of people were killed. This country's Common Alternative Revolutionary Force is the successor organization to a Marxist–Leninist guerrilla group that was part of a conflict in this country that also involved right-wing paramilitaries and the government for many decades. That group, which made money through kidnapping ransoms and cocaine, was this country's FARC. This South American country used to control what is now Panama. Name this country whose capital is Bogotá.

Answer: (Republic of) **Colombia** [accept (República de) **Colombia**]

2. As a performer on this instrument, Timofei Dokschitzer [DOK-sheet-zur] popularized Alexander Arutiunian's [ah-roo-CHOO-nee-un'z] concerto ["con-CHAIR-toe"] for it. Other noted performers of that concerto on this instrument are Tine [TEE-nuh] Thing Helseth and Maurice André. The first famous performer on this instrument was Anton Weidinger [VY-ding-ur], for who Joseph Haydn ["HIGH"-dun] wrote his last concerto, in E-flat major. This brass instrument has a shallow, bowl shaped mouthpiece, which is one difference between it and the cornet. Old versions of this instrument are similar to the modern bugle. Name this high brass instrument that now has valves but historically did not.

Answer: **trumpet**s

3. This author described a narrator who is discouraged from reading books by Musset [moo-say] and encouraged to read books by Bergotte by his friend Bloch. The impressionist painter Elstir introduces this author's narrator to Albertine, and the narrator admires Elstir's paintings when visiting the home of the Guermantes [gair-mawnt] family. This author's narrator has a flood of memories after tasting a crumb of madeleine. This author's works are generally set in Combray, which is the home of Charles Swann. Name this French author whose works are collected into *Remembrance of Things Past*, which is now more commonly titled *In Search of Lost Time*.

Answer: (Valentin Louis Georges Eugène) Marcel **Proust** [**proost**]

4. Most fuel cells work by exposing this element to the anode ["AN-ode"] and then eventually exposing this element to oxygen at the cathode. Toluene [TAHL-yoo-een] is formed by replacing one of these atoms in a benzene molecule with a methyl [MEH-thul] group, which increases the number of these atoms because a methyl group has three atoms of this element. This element is the most abundant element in the universe. This element was used as a lifting gas for airships, but its usage decreased after the *Hindenburg* disaster. Deuterium [doo-TEER-ee-um] and tritium [TRIT-ee-um] are isotopes ["ICE-oh"-tohpss] of this element. Name this first element on the periodic table.
Answer: **hydrogen** [accept **H**]

5. The dot product of a vector from an orthonormal basis with itself equals this number. This number equals Legendre's [luh-zhahn-druh'z] constant, which is used in the prime number theorem. The base of a logarithm can equal any positive number except this number. In an identity matrix, all the diagonal entries are this number. This number is the only positive integer that is neither prime nor composite. If an event's probability equals this number, then the event is certain to occur. This number is the only positive number that equals its own reciprocal. Name this first counting number.
Answer: **1**

6. This body of water is southwest of the Archipelago [ark-uh-PEL-uh-goh] Sea, which is at the mouth of the Aura River at the city of Turku. The western end of this body of water is at the sea area Kattegat [KAT-uh-kat]. This body of water contains the islands Hiiumaa [HEE-uh-muh] and Gotland [GOHT-lund]. Ventspils and Gdańsk are cities on the coast of this body of water. The island of Saaremaa [SAH-ray-mah] is between this body and the Gulf of Riga [REE-guh]. The Aland [OH-lahnd] Islands separate this body from the Gulf of Bothnia, and Kotlin [KAHT-lin] Island is between this body and the Gulf of Finland. Name this sea that borders Estonia, Latvia and Lithuania.
Answer: **Baltic** Sea

7. This dynasty established the Canghai [CHAHNG-"hi"] commandery when it controlled part of the Korean peninsula after the reigns of Wen and Jing. This dynasty sent Zhang Qian [CHEE-en] on diplomatic missions that can be considered the opening of the Silk Road. It is common for Chinese people to name the characters in their alphabet after this dynasty. An interregnum from this dynasty was eventually ended when Liu Xiu [lyoo shyoo] gained control from a leader supported by the Red Eyebrows in 25 CE. Name this dynasty that ruled between the Qin [chin] dynasty and the Three Kingdoms.
Answer: **Han** dynasty

8. This molecular geometry can occur with an sd^2 ["S D two"] hybridization, though it most often occurs with the same hybridization as the tetrahedral shape, which is sp^3. This molecular geometry is exhibited in chlorate [KLOR-"ate"] anions [AN-"eye"-ahnz], phosphine [FAHSS-feen], hydronium ["hi"-DROH-nee-um], and ammonia. The difference between this shape and trigonal [TRIG-uh-nul] planar is that this shape is influenced by the existence of a lone pair, which forces this shape to be three-dimensional. Name this molecular shape based on a steric number of 4, with one lone pair and three atoms bonded to the central atom.
Answer: **trigonal pyramidal** geometry [prompt on partial answers]

9. At the beginning of a short story by this writer, a lieutenant is asked how much farther and replies "I don't know. A mile, ten miles, a thousand." In that story by this author, Sun Domes are destroyed by indigenous people. In a novel by this author, Clarisse McClellan says "I rarely watch the parlor walls or go to races or Fun Parks." Early in that novel, this author depicts the protagonist's wife Mildred being saved after taking too many sleeping pills. This author described a Mechanical Hound that helps locate people who own books. Name this author of "The Long Rain", which was included in *The Illustrated Man*; and *Fahrenheit 451*.
Answer: Ray (Douglas) **Bradbury**

10. Within these features, raised land is called horst [pause] and sunken land is called graben [GRAH-ben]. These features usually include a hanging wall and foot wall. The Sunda [SOON-duh] megathrust is a particularly long example of this type of feature. Bends in these features create rift valleys. These features are a fracture or set of fractures between two blocks of rock. Some of these features are classified as dip-slip or oblique-slip, but the transform type of these features is an example of the strike-slip type. The movement of these features causes earthquakes. Name these features such as the New Madrid one and the San Andreas one.
Answer: (geological) **fault**s [prompt on **fracture** zones or **seismic zone**s]

11. While at trial, this person told the judge "You have trampled under foot every vital principle of our government." When fined 100 dollars, this person stated "I shall never pay a dollar of your unjust penalty", and the judge did not enforce the penalty. Soon after that, this person showed up uninvited at the centennial celebration of the Declaration of Independence and took the stage, saying "We ask justice, we ask equality." This person often worked closely with Elizabeth Cady Stanton, whom she replaced as head of the National American Woman Suffrage Association. Name this woman who was arrested for voting in New York in 1872.
Answer: Susan B. **Anthony** [accept Susan Brownell **Anthony**]

12. A mask of this person is on the back of the head of Rachel Harrison's *Alexander the Great* sculpture. A poem by Vachel Lindsay inspired Fred Torrey to depict this person wearing a robe in a sculpture outside the West Virginia State Capitol. A very famous sculpture of this person shows him using sign language to give his initials. That sculpture is in a memorial to this person at the end of a reflecting pool. This person's head is to the right of the heads of George Washington, Thomas Jefferson, and Theodore Roosevelt on Gutzon Borglum's Mount Rushmore National Memorial. Name this person whose photograph, taken by Mathew Brady, is on the five-dollar bill.
Answer: Abraham **Lincoln**

13. One of these things is named Section 179, and the act of using it is called expensing. A special one of these things exists in the U.S. for people who cannot see better than 20/200 ["twenty, two hundred"] in their better eye or have a field of vision that is 20 degrees or less. Alimony payments that were agreed to in 2019 or later cannot be used in this way. Contributions to Keogh [KEE-oh] plans and Health Savings Accounts are "above-the-line" examples of these things. The itemized type of these things must be listed on Schedule A of Form 1040. Name these things, such as charitable donations, that are subtracted from gross income to calculate taxable income.
Answer: **deduction**s [accept **section**s **of the Internal Revenue Code** before "this way"]

14. The title character of this poem says "Grieve not, O wise one! For each it is better, his friend to avenge than with vehemence wail him." Those words are spoken in this poem after Aeschere [ASH-uh-ruh] is killed and before a group finds a lair under a bloody lake. While there, the title character of this poem finds a giant sword that melts after being used to cut off the head of a corpse. This poem's title character uses that sword when Hrunting [RUN-ting] is ineffective. The hero of this poem helps Hrothgar [RAWTH-gar], the king of the Danes. Name this Old English epic poem about the killing of Grendel.
Answer: ***Beowulf***

15. The two common forms of the Schrödinger [SHRAY-ding-ur] equation are named based on whether they depend on this quantity. Planck's constant is given in units of energy times units of this quantity. The basic unit of this quantity is an SI ["S-I"] base unit defined by transitions in a cesium atom. Power equals work divided by this quantity. When calculating displacement under constant acceleration from rest, the square of this quantity is multiplied by half the acceleration. The reciprocal of this quantity is frequency. Name this quantity that is measured in seconds.
Answer: **time**

16. The decision in *Katzenbach v. Morgan* quoted this case's opinion about government actions, saying "Let the end be legitimate." The unanimous decision in this case stated that the words "necessary and proper" should "be considered as synonymous". This case gave implied powers to the federal government. Referring to state actions, this case's decision stated "An unlimited power to tax involves, necessarily, a power to destroy." This case's named plaintiff was a cashier. Name this 1819 case involving the operation of the Second Bank of the United States in Baltimore.
Answer: ***McCulloch*** *v. Maryland* [prompt on **Maryland**]

17. The subject of one poem by this writer is "He who, from zone to zone, guides through the boundless sky thy certain flight, in the long way that I must tread alone, will lead my steps aright." In that poem, this writer said "There is a Power" which relates to both the writer and the bird he is addressing. A longer poem by this writer ends, "By an unfaltering trust, approach thy grave, like one who wraps the drapery of his couch about him, and lies down to pleasant dreams." That poem is this American poet's consideration of death. Name this 19th-century poet who wrote "To a Waterfowl" and "Thanatopsis".
Answer: William Cullen **Bryant**

18. Monastic people who are part of this belief system have an annual three-month retreat that ends with laypeople giving thanks during Kathina [kuh-TEE-nuh]. At the new moon, full moon, and quarter moon, adherents of this belief system observe Uposatha [oo-POH-suh-thuh], which includes a commitment to the Five Precepts. The conduct of monks and nuns in this belief system is governed by the Vinaya Pitaka [vee-NY-uh pee-TAH-kuh], which is within the Tripitaka [trih-pee-TAH-kuh]. The Pali Canon is the scripture of the Theravada school of this system. Name this belief system whose Noble Eightfold Path and Four Noble Truths are based on the ideas of Siddhartha Gautama.
Answer: **Buddhism** [or **Buddhist**; accept **Theravada** Buddhism or **Theravada** Buddhist before "Theravada"]

19. In this play, Francisco says "I saw him beat the surges under him, and ride upon their backs", but Alonso replies "No, no, he's gone." Alonso is the King of Naples in this play, and those lines refer to his son Ferdinand. In this play, Alonso's daughter Claribel had recently gotten married in Africa. Ferdinand is actually alive, and in this play, he falls in love with the daughter of the man who was the Duke of Milan before that title was taken away. In this play, the former duke's daughter, Miranda, falls in love with help from the spirit Ariel after witnessing a shipwreck. Name this play by William Shakespeare that is set on an island and features the sorcerer Prospero.
Answer: *The* ***Tempest***

20. The satellite types of these things have a similar impact as satellite nucleic acids, both of which depend on a helper type of these things. These things are grouped based on how they synthesize messenger RNA in Baltimore classification. These things are enclosed by capsids, some of which are in the shape of an icosahedron ["eye"-KAH-suh-HEE-drun]. Many of the first studied examples of these things were bacteriophages, and the first one of these things discovered was named for causing tobacco plants to develop a "mosaic" pattern. This type of infectious agent can only multiply inside living cells. Name these things responsible for measles, influenza, and COVID.
Answer: **virus**es [accept **viri** or **virion**s]

21. If vectors in a basis have this relationship, then all vectors in the space can be expressed as sums of components that can be calculated using dot products. If two non-zero vectors have this relationship, their dot product is zero. A line that has this relationship to a segment and is also the segment's bisector can be generated by finding the locus of points equidistant [ee-kwih-"distant"] from the segment endpoints. If two intersecting lines form four congruent angles, then the lines have this relationship. If two lines have slopes that are opposite reciprocals, then the lines have this relationship. Name this relationship between lines that meet at 90-degree angles.
Answer: **perpendicular** [accept **right** angle or **normal**(ity) or **orthogonal**(ity); before "90-degree", accept **90-degree** angle or **pi/2**-radian angle or **1/2*pi***-radian angle]