

2022-23 Solon-Adjacent Novice Set (SANDS)

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Packet 10

1. **Queen Victoria owned one of these items called the *Koh-i-noor*. Cecil Rhodes made his fortune with these items through the De Beers company, whose motto is “[one of these items] is forever.” Controversies surround the (*) “blood” examples of these objects, which are mined and sold to fund warlords in Africa. These carbon-based items are often cut before they are worn in jewelry. For 10 points, name these most precious gemstones.**

ANSWER: **diamonds** [prompt on gemstones until mentioned] <World History–Kapadia>

In 2021, Post Malone released a cover of “Only Wanna Be with You” for this franchise’s 25th Anniversary. For 10 points each:

[E] Name this franchise, whose first Red and Blue games feature Charizard and Pikachu.

ANSWER: **Pokémon**

[M] During Pokémon25, the remakes Brilliant Diamond and Shining Pearl were announced for this console.

Pokémon Legends: Arceus was also announced for this console.

ANSWER: Nintendo **Switch**

[H] Pokémon Legends: Arceus takes place in an ancient version of this Pokémon region based on Hokkaido, called Hisui. The Generation IV games Pokémon Diamond and Pearl are also based in the region, home to Pokémon like Palkia and Dialga.

ANSWER: **Sinnoh** <Popular Culture–Chae>

2. **This man, who owns the blind dog Argos, is advised by Tiresias to avoid eating the cattle of Helios. Hermes gave this man moly to protect him from the magic of Circe. This man adopts the name “Nobody” to escape the cyclops (*) Polyphemus. This father of Telemachus kills the suitors of his wife, Penelope, when he returns to Ithaca. For 10 points, name this hero who travels for ten years in a namesake Homeric epic.**

ANSWER: **Odysseus** <Mythology–Ganguli>

Le Châtelier’s principle states that any system in this state will attempt to counteract any changes applied to it. For 10 points each:

[M] Name this balanced state, which has a constant “K”.

ANSWER: **equilibrium**

[E] The law of mass action can describe systems in equilibrium and relates the rate of a chemical reaction to the concentration of these things. They are present at the start of chemical reactions and can react to form products.

ANSWER: **reactants**

[H] This equation can relate the standard electrode potential and the equilibrium constant of a redox reaction. It is named for a German and is often used to calculate the reduction potential of a reaction.

ANSWER: **Nernst** equation <Chemistry–Chae>

3. **In one novel, one of these animals named Old Major composes the song “Beasts of England.” One of these animals named Squealer paints a commandment saying “whatever goes upon two legs is an enemy” in Manor Farm. Trotsky and Stalin are represented by two of these animals named (*) Snowball and Napoleon in one novel. For 10 points, name these animals that replace humans in *Animal Farm*.**

ANSWER: **pigs** <British Literature–Ganguli>

Protestors in this country took over the President and Prime Ministers residences in Colombo. For 10 points each:
[M] Name this island nation off the tip of India, where protests over economic mismanagement toppled the government of Gotabaya Rajapaksa in July 2022.

ANSWER: **Sri Lanka**

[E] Rajapaksa's government blamed COVID-19's effects on this industry, Sri Lanka's main economic driver, for the poor economy. This industry involved foreigners going to a country to view its landmarks and attractions.

ANSWER: **tourism** [or **tourist**]

[H] This financial institution is working on a 3 billion dollar bailout package for Sri Lanka. This financial institution was founded, along with the World Bank, at the Bretton Woods Conference.

ANSWER: **International Monetary Fund** [or **IMF**] <Current Events–Kapadia>

4. **The area of the sky that is obscured by this entity is known as the Zone of Avoidance. In 2022, the Event Horizon Telescope imaged the center of this entity, which is a supermassive black hole called Sagittarius A* (A - star). The Magellanic Clouds orbit this entity, and, in about 4.5 billion years, this entity is predicted to (*) collide with its large galactic neighbor, the Andromeda Galaxy. For 10 points, what galaxy is home to the Solar System?**

ANSWER: **Milky Way** <Other Science–Chae>

Gerda tries to save Kai from the title character in this author's story "The Snow Queen." For 10 points each:

[M] Name this Danish author of fairy tales, who also wrote about a character who gives up her voice to become human in "The Little Mermaid."

ANSWER: Hans Christian **Andersen**

[E] Andersen wrote about an "ugly" one of these animals that grows up to be a swan in another story.

ANSWER: **duck** [accept "The **Ugly Duckling**"]

[H] In another story by Andersen, one person with this title is told he is naked by a child while marching through the city. That story is titled for the "new clothes" of a person with this title.

ANSWER: **emperor** [accept "The **Emperor's New Clothes**"] <European Literature–Ganguli>

5. **This color appears in the title of a game featuring the drug lord Raul Menendez. This color, which partly names a music group behind "I Gotta Feeling," is the color of the "little dress" worn by Audrey Hepburn in *Breakfast at Tiffany's*. Orange is called the (*) "new [this color]" in one Netflix series. Chadwick Boseman played a Marvel character whose name combines this color with "Panther." For 10 points, old movies were often in what color and white?**

ANSWER: **black** [accept Call of Duty: **Black** Ops II or **Black**-Eyed Peas or Little **Black** Dress or Orange is the New **Black** or **Black** Panther] <Popular Culture–Ganguli>

This province's sovereignty movement grew stronger during its "Quiet Revolution." For 10 points each:

[M] Name this largest Canadian province, the only majority French-speaking one.

ANSWER: **Quebec**

[E] Under Pierre, a prime minister from this family, Quebec separatists caused a crisis by kidnapping two government officials. The current Canadian Prime Minister, Justin, is from this family.

ANSWER: **Trudeau** [accept Pierre **Trudeau** or Justin **Trudeau**]

[H] The kidnappings caused a crisis named for this month. It's not November, but, in another country, a revolution named for this month ended the provisional government of Alexander Kerensky.

ANSWER: **October** [accept **October** Crisis or **October** Revolution] <European History–Kapadia>

6. **One man with this surname names a point where ferromagnetic materials become paramagnetic. Henri Becquerel’s work led two scientists with this surname to analyze pitchblende. One of those scientists with this surname went on to become the first double Nobel laureate and coined the term (*) “radioactivity” after discovering the elements radium and polonium. For 10 points, give this surname of French and Polish scientists Pierre and Marie.**

ANSWER: **Curie** <Chemistry–Sivaram>

According to this religion, Ahura Mazda spreads asha, or truth, while his counterpart Ahriman spreads druj, or lies. For 10 points each:

[H] Name this dualistic religion founded by its namesake ancient Persian prophet.

ANSWER: **Zoroastrianism**

[E] In Zoroastrianism, a “sky” form of this service places its subject in a Tower of Silence. Following this service, the dead body is left exposed to be eaten by scavenger birds.

ANSWER: **funeral** [or **burial** or sky **burial**]

[M] Zoroastrian temples are named for this substance. Zoroastrians believe that this purifying substance reveals asha in “trials by [this substance].”

ANSWER: **fire** [accept “trial by **fire**” or **fire** temple] <Religion–Kapadia>

7. **One app allows users of this service to improve their experience through “Black” and “XL” options. A company providing this service delivers food under a subsidiary that adds “Eats” to its name. Users of this service set their (*) pickup locations and often identify their providers by their license plates. Companies including Lyft and Uber offer, for 10 points, what kind of service in which drivers use their own vehicles to transport passengers?**

ANSWER: **ridesharing** [or **rideshare**; accept **Uber** until mentioned] <Other Academic/Miscellaneous–Maiorana>

A period of violence in this state saw the influx of many “border ruffians” and “free-staters.” For 10 points each:

[M] Name this midwestern state where opponents and supporters of slavery clashed during a conflict called “Bleeding [this state]” in the leadup to the Civil War.

ANSWER: **Kansas**

[H] This violent abolitionist perpetrated the Pottawatomie Massacre during “Bleeding Kansas.” This man was later hanged for his failed raid on Harper’s Ferry.

ANSWER: John **Brown**

[E] Abolitionist fighters in “Bleeding Kansas” were supplied with these weapons nicknamed, “Beecher’s Bibles,” which were loaded with bullet cartridges near the end of their barrels.

ANSWER: **guns** [or **rifles**] <American History–Kapadia>

8. **In one poem, this poet declares “out of the ash/ I rise with my red hair/ and I eat men like air.” This poet of “Lazy Lazarus” tells the title figure “there’s a stake in your fat black heart” in another poem. That poem by this author exclaims “you bastard, I’m through” and describes (*) “a man in black with a Meinkampf look.” For 10 points, name this American poet of “Daddy,” who committed suicide by carbon monoxide in 1963.**

ANSWER: Sylvia **Plath** <American Literature–Ganguli>

The synaptonemal complex forms in one stage of this process. For 10 points each:

[M] Name this process that results in the formation of gametes. This process results in a haploid cell, unlike a similarly named process in somatic cells that creates new diploid cells.

ANSWER: **meiosis**

[E] The anaphase stage of both mitosis and meiosis pulls apart these X shaped structures in the cells that contain genes, normally found in the nucleus.

ANSWER: **chromosomes**

[H] One aspect of meiosis is the “crossing over” of genes, which adds genetic variability. This phenomenon is when a pair of genes are close together and are usually inherited together, explaining why people with freckles often have red hair.

ANSWER: gene **linkage** <Biology–Kodali>

9. Many images of the Venus de Milo appear in one painting by this artist dedicated to his wife Gala. An array of brick-like objects appears in a painting by this artist named for the “Disintegration” of one of his previous paintings. In a painting by this artist inspired by Camembert cheese, (*) melting clocks appear in a Catalonian landscape. For 10 points, what Spanish surrealist painted *The Persistence of Memory*?

ANSWER: Salvador **Dalí** <Visual Fine Arts–Maiorana>

Lake St. Clair and Lake Erie are connected by a river named after this city. For 10 points each:

[E] Name this center of the American automotive industry, the largest city in Michigan.

ANSWER: **Detroit**

[H] Detroit is linked by the Ambassador Bridge to Windsor, a city in this Canadian province. This province is home to Canada's most populous city, Toronto, and its capital, Ottawa.

ANSWER: **Ontario**

[M] Before passing under the Ambassador Bridge, the Detroit River is joined by the River Rouge, which names a large factory for this automotive company, a longtime rival of General Motors.

ANSWER: **Ford** Motor Company

ANSWER: <Geography–Sareddy>

10. This ruler organized an ecumenical council, whose namesake “Creed” affirms the belief in one god. A vision inspired this ruler to adopt the Chi Rho symbol before winning the Battle of Milvian Bridge. This ruler’s Edict of Milan officially (*) legalized Christianity within the Roman Empire. The first Christian Roman Emperor was, for 10 points, what ruler, who names a city once called Byzantium and now called Istanbul?

ANSWER: **Constantine** the **Great** [or **Constantine I**; prompt on **Constantine**] <European History–Kapadia>

This poem begins “should auld acquaintance be forgot.” For 10 points each:

[M] Name this song, which is often sung on New Year's Eve.

ANSWER: “**Auld Lang Syne**”

[H] “Auld Lang Syne” is by this Scottish poet, who also wrote “To a Mouse.”

ANSWER: Robert **Burns**

[E] Burns describes a “red, red” one of these flowers in another poem. These flowers are often given to express love.

ANSWER: **roses** <British Literature–Ganguli>

11. After reuniting with a former love interest at a performance of *Lucia di Lammermoor*, this character fakes weekly piano lessons in Rouen. This character, whose husband botches an operation on Hippolyte's clubfoot, has affairs with Rodolphe Boulanger and Léon Dupuis after moving to (*) Yonville. This wife of the doctor Charles swallows arsenic when she is unable to repay her debts. For 10 points, name this title character of a Gustave Flaubert novel.

ANSWER: Emma Bovary [or Madame Bovary Emma or Emma Rouault; prompt on Bovary or Rouault] <European Literature–Ganguli>

This speech commanded “You shall not press down upon the brow of labor this crown of thorns.” For 10 points each:

[H] At the 1896 Democratic National Convention, what William Jennings Bryan speech supporting bimetallism declared that “you shall not crucify mankind upon [the title entity of this speech]?”

ANSWER: Cross of Gold Speech or [“this Cross of Gold”]

[E] Proponents of bimetallism advocated for a monetary standard based on gold and this other precious metal.

ANSWER: silver

[M] Achieving bimetallism was one of the goals of this party, whose policies would benefit farmers and the common folk.

ANSWER: Populist Party [or People's Party] <American History–Kapadia>

12. This country's oil industry is centered at its city of Port Harcourt. The “Nollywood” film industry is based in this country, which is home to the majority of the Igbo and Yoruba people. The terrorist group (*) Boko Haram has been involved in kidnappings in this country's north. This country's largest city was replaced as its capital by Abuja. For 10 points, name this most populous African country, home to the city of Lagos.

ANSWER: Nigeria <Geography–Sareddy>

The index of this phenomenon in a medium can be calculated using the speed of light in that medium and the speed of light in a vacuum. For 10 points each:

[M] Name this phenomenon, in which a wave's direction changes as it moves between two different media.

ANSWER: Refraction

[E] One of these things can be measured between an incident ray and a perpendicular line. They can be measured in radians or degrees.

ANSWER: angles

[H] This law relates the angles of incidence and indexes of refraction for two mediums. It can be written as “ n_1 times the sine of theta-one equals n_2 times the sine of theta-two”.

ANSWER: Snell's Law <Physics–Chae>

13. A curse is broken when this novel's protagonist sings a song beginning and ending with “if only, if only.” A lipstick tube in one of this novel's title entities marks the location of “Kissin' Kate” Barlow's treasure. This novel's protagonist breaks the curse on his family by carrying (*) Hector Zeroni up a mountain. Juvenile delinquents at Camp Green Lake dig the title entities of, or 10 points, what Louis Sachar novel about Stanley Yelnats?

ANSWER: Holes <Other Literature–Kapadia>

This writing system was based on Charles Barbier's "night writing" system. For 10 points each:

[M] Name this tactile writing system created by a French educator that the blind use to read.

ANSWER: **braille**

[H] This woman once claimed "we the blind are as indebted to Braille as mankind is to Gutenberg". This author of *The Story of My Life* attended the Perkins Institute, where she met Anne Sullivan.

ANSWER: Helen **Keller**

[E] Since Helen Keller was blind and deaf, Anne Sullivan taught her a language of this type by pressing her hands. These languages used by the deaf include ASL and utilize body and hand movements.

ANSWER: **sign** languages [accept **American Sign Language**] <Other Academic/Miscellaneous–Ganguli>

14. **Secretion of molecules from this organelle is inhibited by retention sequences such as KDEL . This organelle is the origin of COP1 vesicles sent to the Golgi body. A sarcoplasmic variety of this organelle releases calcium in muscle cells. Chaperonins are used in this organelle to (*) fold proteins.** A part of this organelle is lined with ribosomes. For 10 points, name this organelle responsible for protein transport, with rough and smooth subunits.

ANSWER: **Endoplasmic Reticulum** [accept **ER**] <Biology–Feldman>

A giant crab was sent to distract a hero and his nephew Iolaus while they were fighting this creature. For 10 points each:

[M] Name this creature that inhabited a lake in Lerna. This creature was defeated when flaming arrows prevented its heads from regenerating.

ANSWER: **Hydra** [or Lernean **Hydra**]

[E] Defeating the Hydra was part of the Twelve Labors of this hero.

ANSWER: **Hercules** [or **Heracles**]

[H] Another of the Labors involved capturing one of these creatures from Erymanthos, which Hercules accomplished by first driving it into the snow. Another of these creatures ravaged Calydon before Meleager killed it.

ANSWER: **boar** [or **swine** or **pig**] <Mythology–Kapadia>

15. **A pure oxygen environment caused a failure for this program in which Roger Chaffee and Gus Grissom were killed. On one of this program's missions, Michael Collins piloted the Command Module while the Eagle landed in the Sea of Tranquility. The words (*) "That's one small step for man, one giant leap for mankind" were spoken by Neil Armstrong during this program's eleventh mission.** For 10 points, what NASA program landed the first humans on the Moon?

ANSWER: **Apollo** Program [or **Apollo** Project; accept **Apollo 1** or **Apollo 11**; prompt on **moon landing** or **NASA** until mentioned] <American History–Kapadia>

In this novel, Roger Chillingworth's wife has an affair with Arthur Dimmesdale. For 10 points each:

[M] Name this novel by Nathaniel Hawthorne, in which Hester Prynne wears the title symbol.

ANSWER: *The **Scarlet Letter***

[E] This letter represents adultery in *The Scarlet Letter*. This letter is also the first letter of the English alphabet.

ANSWER: **A**

[H] This character is the daughter of Hester and Dimmesdale. This character shares a name with a precious gemstone.

ANSWER: **Pearl** Prynne <American Literature–Ganguli>

16. **When this phenomenon occurs on a smooth surface at a definite angle, it is termed specular, while its diffuse variety occurs in all directions. A total internal variety of this phenomenon occurs at the critical angle. The angle of incident (*) light must be equal to the angle of outgoing light, according to the law of this phenomenon.** For 10 points, name this phenomenon that occurs when light hits a surface and bounces back, which is often seen in mirrors.

ANSWER: **reflection** <Physics–Sivaram>

This country's emperor, Menelik II, stopped an Italian invasion of his country at the Battle of Adwa. For 10 points each:

[M] Along with Liberia, what nation in the Horn of Africa led from Addis Ababa is considered to be the only African nation not to be colonized?

ANSWER: **Ethiopia**

[H] Emperor Haile Selassie protested a later Italian attempt to colonize Ethiopia with an impassioned speech to this international organization, which Woodrow Wilson called for in his Fourteen Points.

ANSWER: **League of Nations**

[E] In his speech to the League of Nations, Selassie decried the use of these kinds of weapons against his people. Examples of these weapons include nerve gas and mustard gas.

ANSWER: **chemical** weapons <World History–Kapadia>

17. **In a work subtitled “A Critique of Political Economy”, this philosopher introduced the idea of “commodity fetishism.” That work by this thinker begins by stating “a spectre is haunting Europe.” This philosopher, who described the class struggle between the (*) bourgeoisie and proletariat in one work, wrote *Das Kapital*.** For 10 points, name this philosopher, who worked with Friedrich Engels on *The Communist Manifesto*.

ANSWER: Karl **Marx** <Philosophy–Ganguli>

Ella Fitzgerald, a performer of this type, released an album covering George Gershwin's *Porgy and Bess*. For 10 points each:

[E] What kind of performers typically use handheld microphones and perform lyrics?

ANSWER: **vocalists** [accept **singers** or **vocal** artists]

[M] Fitzgerald was known for her ability to sing with this technique. This technique consists of singing nonsense syllables to a melodic line.

ANSWER: **scat** singing [accept **scatting**]

[H] This musician collaborated with Fitzgerald on multiple albums. This musician sang about “skies of blue and clouds of white” in one song.

ANSWER: Louis **Armstrong** <Other Fine Arts–Maiorana>

18. **A supposed “curse” affected composers who wrote at least nine of these pieces. Gustav Mahler added a chorus and vocal soloists to the typical ensemble for one of these pieces, which was later nicknamed the one “of a Thousand”. Beethoven's (*) fifth one of these employs a “short-short-short-long” motif, while his ninth features a chorus singing “Ode to Joy”.** For 10 points, name this type of classical composition for a large orchestra.

ANSWER: **symphony** [accept **Symphony** of a Thousand or Beethoven's Fifth **Symphony** or Beethoven's Ninth **Symphony**] <Auditory Fine Arts–Maiorana>

The tropopause separates this layer from the troposphere. For 10 points each:

[M] Name this second lowest layer of Earth's atmosphere, above the Troposphere but lower than the Mesosphere.

ANSWER: **stratosphere**

[E] These kinds of vehicles usually fly in the lower parts of the Stratosphere to avoid turbulence in the Troposphere. The jet engines of these vehicles generate thrust, and their wings create lift.

ANSWER: **planes** [accept **jets** or **airliners** or **aircrafts**]

[H] The Ozone layer in the Earth's stratosphere absorbs most of this type of electromagnetic radiation from the Sun. It ranges from wavelengths of 10 nanometers to 400 nanometers, shorter than the wavelength of visible light.

ANSWER: **ultraviolet** [accept **UV**] <Other Science–Chae>

19. The World Economic Forum meets annually in this country's city of Davos. Romansh is one of the official languages of this country, where the Winter Olympics were hosted twice in the ski resort town of St. Moritz. This country's southern border is home to the (*) Matterhorn. This country is divided into cantons, some of which are named after its largest cities like Zurich and Geneva. For 10 points, name this Alpine nation known for its neutrality.

ANSWER: **Switzerland** <Geography–Kapadia>

In one novel, Mr. Beaver describes this son of the Emperor-Beyond-The-Sea as "the king of the beasts" and "king of the wood." For 10 points each:

[M] Name this "Great Lion," who is the creator of a world that is accessed through a wardrobe by the Pevensie children.

ANSWER: **Aslan**

[E] Aslan creates this fictional world in *The Magician's Nephew*, a prequel to a collection by C.S. Lewis titled for its "chronicles," which includes *The Lion, the Witch, and the Wardrobe* and *Prince Caspian*,

ANSWER: **Narnia** [accept *The Chronicles of Narnia*]

[H] When asked how to save this character in *The Lion, the Witch, and the Wardrobe*, Aslan says "all shall be done." The White Witch capitalizes on this character's greed for Turkish delight.

ANSWER: **Edmund** Pevensie [prompt on **Pevensie**] <Other Literature–Ganguli>

20. A black stele from this city depicts a seated king of this city conversing with Shamash. For a seventy-year period, the Jews were held in a "captivity" named for this city by its king Nebuchadnezzar II. A law code originating the phrase (*) "an eye for an eye" was inscribed on a stele by this city's king Hammurabi. For 10 points, what ancient Mesopotamian city was once home to The Hanging Gardens?

ANSWER: **Babylon** <Ancient/Other History–Kapadia>

Practitioners of this medium often use spray paint and are commonly charged with vandalism. For 10 points each:

[E] What artistic medium typically involves painting on public surfaces?

ANSWER: **graffiti** [accept **street art**]

[H] This graffiti artist advocated against drug use in the New York City mural *Crack is Wack*. This artist's signature style features simple human figures surrounded by motion lines.

ANSWER: Keith **Haring**

[M] Blek le Rat, a French graffiti artist, frequently used these tools when painting. These templates mask part of a surface while allowing paint through predetermined areas, and are often used to paint signs.

ANSWER: **stencils** <Visual Fine Arts–Maiorana>