

SKUFFED

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Packet 2

1. **The ion of this element blocks NMDA receptors from binding to glutamate. The majority of ATP in the cytosol is complexed to this element. A salt of this element can treat a condition which is preceded by HELLP syndrome. It's not iron, but a tetrapyrrole ring surrounds this element in a protein which also features a (*) 20-carbon phytol chain. This element participates in binding carbon dioxide to lysine in the active site of RuBisCO. For 10 points, name this metal found at the center of chlorophyll with atomic number 12.**

ANSWER: magnesium [or Mg] <Science, Biology, CB>

2. **This composer included a rounded arrow-like symbol to instruct performers to play between the bridge and the tailpiece in his first string quartet. This composer set the “Pange lingua” hymn for soprano and orchestra in the “Crux fidelis” section of an atonal work which utilized the B-A-C-H motif. This composer of the (*) St. Luke Passion included “cluster chords” played by 52 instruments in a piece originally titled 8'37” (“eight minutes and thirty-seven seconds”) written to commemorate an event in World War Two. For 10 points, name this Polish composer of *Threnody for the Victims of Hiroshima*.**

ANSWER: Krzysztof Penderecki <Fine Arts, Auditory, VP>

3. **The low-energy plasma-enhanced form of this process underlies many forms of silicon wafer manufacturing. A hot and cold wall aid in that type of this process which is used to create synthetic diamonds and carbon nanotubes, its “chemical vapor” form. This process which explains the buildup of soot in chimneys is highly (*) exothermic with a change in enthalpy defined as the negative sum of the heats of fusion and vaporization. For 10 points, name this process contrasted with sublimation where a substance jumps from a gas to a solid.**

ANSWER: deposition [accept chemical vapor deposition or CVD until soot] <Science, Chemistry, CB>

4. **A 1985 adaptation of this play replaced two characters with the Costazuela brothers. During an argument, one character in this play throws a plate of linguini at a kitchen wall. The two central characters of this play play a poker game with Murray, Speed, Vinnie, and Roy. After a disastrous double date, a neat freak moves in with the English (*) Pigeon sisters at the end of this play. Felix Ungar moves in with the slob Oscar Madison in, for 10 points, what comedy by Neil Simon.**

ANSWER: The Odd Couple <Literature, American, VP>

5. **Heidegger wrote “[the author of this work] stays with metaphysics in oblivion of the truth of Being” in a letter to Jean Beaufret. This essay relates an individual’s actions to mankind as a whole through the phrase “In fashioning myself, I fashion man” One title concept is described as “an invitation to people to dwell in (*) quietism of despair” in this essay based on a lecture given at the Club Maitenant in Paris. For 10 points, name this Jean-Paul Sartre essay which coined the phrase “existence precedes essence,” named for a philosophical movement.**

ANSWER: Existentialism is a Humanism [prompt on Existentialism] <RMPSS, Philosophy, VP>

6. This general quelled the rebellion of the *sohei* by destroying their fortress atop Mount Hiei. This general named a castle and the surrounding village “Gifu” after winning the Siege of Inabayama Castle. This general conducted an 11 year siege of the Ishiyama Honganji fortress to defeat the *Ikko-Ikki*. This man was (*) assassinated by his general Akechi Mitsuhide in the Honno-ji incident. This man utilized arquebusiers to vanquish the Takeda clan at the 1571 Battle of Nagashino. For 10 points, name this first Japanese unifier who was succeeded by Toyotomi Hideyoshi and Tokugawa Ieyasu.

ANSWER: Oda Nobunaga [accept names in either order] <History, World, CH>

7. This video shows the main character telling her crush “no, studying” to which he responds “wish you were here.” A dancing sequence from this video was reenacted by Olivia Rodrigo and Conan Gray before the release of a rerecording of the song associated with this video. This video accompanies a song on the album (*) Fearless which states “She wears high heels, I wear sneakers.” For ten points, name this video which accompanies a Taylor Swift song about a boy in a toxic relationship who does not see that the singer likes him.

ANSWER: “You Belong With Me” music video [accept equivalents] <Trash & Pop Culture, VP>

8. In this poem, a woman is killed after begging for exile in Libya or Siberia in a “lyric-tragic episode.” In this work, one character recounts the events of this work in the court of the King of Melinde. The main character of this work becomes the lover of Tethys on the Isle of Love. In this poem, a man with an unkempt beard named Adamastor is the personification of the (*) Cape of Good Hope. This epic fictionalizes Vasco De Gama’s voyage to India. For ten points, name this poem by Luís de Camões [ka-MOISH], the national epic of Portugal.

ANSWER: *Os Lusíadas* [or *The Lusíads*] <Literature, European, VP>

9. A dye made up of this substance was allegedly used by J.M.W Turner to paint the sunset in *The Fighting Temeraire*. A work made with this substance followed its artist’s earlier work *Blood Cross*. A work with this substance by Andy Warhol is made up of corroded copper plates and is titled (*) *Oxidation*. A repository for this substance with “R. Mutt” written on the side by Marcel Duchamp is titled “Fountain”. For 10 points, Andres Serrano depicted a crucifix submerged in what substance in his photograph *Piss Christ*?

ANSWER: urine [accept piss before mention, accept vulgar equivalents] <Fine Arts, Visual, CH>

10. A drawing of a turtle named Plautus confirms the identity of one character in this play. In this play, Bernard Nightingale’s theory that Ezna Chater was killed in a duel is refuted by Hannah Jarvis. In this play, a friend of Lord Byron falls in love with the daughter of Lord Croom and becomes the (*) “Hermit of Sidley Park” after her death. Thomasina Coverly is tutored by Septimus Hodge in, for 10 points, what play, set in both 1809 and the present day, by Tom Stoppard?

ANSWER: Arcadia <Literature, British, VP>

11. In 2011, a Russian mission failed to retrieve samples from one of these objects due to power issues. Deep regolith on another of these objects means its craters are filled in by settling dust. Unusual orbital characteristics led Shklovsky to suggest that one of these objects was hollow. The Stickney crater dominates the terrain of one of these objects. Low escape velocities make these objects ideal for (*) colonization efforts. Asaph Hall discovered, for 10 points, these objects named for the twin Roman gods of fear and dread, the moons of Mars.

ANSWER: Phobos and Deimos [accept the moons of Mars before mention, prompt on moons; prompt on satellites of Mars] <Science, Math/Other, CB>

12. Alexandre Dumas’ play *The Forty-Five Guardsmen* is based on a troop of 45 Gasconian guardsmen that served during this war. The Treaty of Nemours prevented a king from taking power in the leadup to this war. A king claimed that he would be “victorious or die” before winning this war’s Battle of (*) Ivry. The Catholic

League opposed a king who proclaimed “Paris is well worth a mass” in this war. For 10 points, name this conflict where Henri de Guise, Henry III and Henry of Navarre all fought over the French crown.

ANSWER: **War of the Three Henries** [accept **Eighth French War of Religion**, prompt on **French Wars of Religion** alone] <History, European, CH>

13. **During one battle, this empire’s horses were scared away by the smell of the enemy’s camels. A stream in this empire’s capital was said to carry “golden sands” that was in actuality mineral dust that led to this empire separating the components of electrum. The Pharaoh (*) Amasis II provided support to a ruler of this empire on a notable campaign. That ruler lost a battle near the Halys River to an Achaemenid ruler, the battle of Pteria. For 10 points, name this Anatolian empire whose ruler Croesus was defeated by Cyrus the Great.**

ANSWER: **Lydia** <History, Ancient/Other, CH>

14. **One of these interactions is created by Andreev reflection. Kinetic inductance of these interactions creates voltage in Josephson junctions. The scale of these interactions is described by the coherence length from Ginzburg-Landau theory, and they can also explain the superfluidity of Helium-3 since they are composite (*) bosons. Phonons in a positively charged lattice described in BCS theory create, for 10 points, these interactions of bound electrons that underlie superconductivity named for an American physicist.**

ANSWER: **Cooper pairs** [or **BCS pairs**; prompt on **superconductivity**] <Science, Physics, CB>

15. **Explorer George Kourounis became the first to set foot at the bottom of this landmark in 2014 and collected data on the extremophile organisms that inhabit it. To dispel rumors surrounding his death, Gurbanguly Berdimuhamedow did donuts around this landmark. This landmark was created when Soviet geologists set a pit (*) on fire to prevent the spread of methane gas. This landmark is sometimes called the “Shining of the Karakum” after the desert it is located in. For 10 points, name this Turkmenistani landmark that shares its name with an Auguste Rodin sculpture.**

ANSWER: the “**Gates of Hell**” [or the **Door to Hell**, or the **Darvaza gas crater**, accept “**Shining of the Karakum**” before mention] <Geography, Other, CH>

16. **Despite not knowing Sanskrit, Richard Burton claimed to have translated this text alongside *The Perfumed Garden*, the “Arab” version of this text. This text divides men and women into categories named for animals based on size, endurance, and temperament. This text suggests to embrace *dharma* in old age and embrace *artha* and the title concept in young and middle age. This text by (*) Vatsyayana is named for the Hindu god of love. For ten points, name this text which contains a sex manual and a catalogue of sex positions.**

ANSWER: **Kama Sutra** <RMPSS, Religion, VP>

17. **Samuel Pomeroy’s planned settlement of Lincolnia was an attempt to carry out this organization’s goals. This organization was inspired by Paul Cuffe’s efforts to transport refugees. William Lloyd Garrison criticized this organization’s goals in his tract “Thoughts on [it]”. Henry (*) Clay and Bushrod Washington helped establish settlements of this organization as some of its founding members. Robert Finley founded, for 10 points, what organization which sought to send freed slaves to modern day Liberia?**

ANSWER: **American Colonization Society** [or **ACS**] <History, American, CH>

18. **In one short story, a man hides in a bell tower while in a “town” of these creatures, but finds that he is unable to take the train back to where he came from. Malta Kano tells the protagonist of one work that one of these creatures named Noboru Wataya is “far, far away”. Mr. (*) Nakata is impressed by one of these animals named Mimi as it is able to quote passages from Puccini operas in *Kafka on the Shore*. For 10 points, Haruki Murakami novels sometimes feature what felines?**

ANSWER: **cats** [or **neko**] <Literature, World, CH>

19. **While enslaved, this hero is forced to herd cattle with a loaf of bread with rocks baked into it. To aid this hero, bears and wolves disguised themselves as cows and maul a cruel blacksmith's wife. This man uses gold to seduce a woman who he later finds out to be his sister. Ukko gives this man a sword he uses to avenge his family by slaughtering the (*) Untamo tribe. For 10 points, name this tragic hero who kills himself by throwing himself on his own sword in the *Kalevala*.**

ANSWER: **Kullervo** <RMPSS, Mythology, VP>

20. **Many members of this institution later taught at Black Mountain College. Marcel Breuer was a member of this institution noted for his Wassily and Cesca chair designs made of tubular steel. Tel-Aviv became known as the White City due to the extensive influence of this institution on its (*) International Style architecture. Teachers at this institution wrote Paul Klee and Wassily Kandinsky, and it was founded by the architect of the Fagus Shoe Factory. For 10 points, name this German art movement and school founded by Walter Gropius.**

ANSWER: Staatliches **Bauhaus** <Fine Arts, Visual, CB>

Tiebreaker: **Chugging and screeching are acoustic oscillations that may damage these devices. The Oberth effect is used to determine optimal activity cycles of these devices. Other components of these devices use the Joule-Thompson effect to increase outflow speed and are named for de Laval. In a type of these devices, the Hall effect propels (*) ions which have a very high specific impulse. These devices were traditionally powered by hydrazine but now use liquid oxygen. For 10 points, name these devices that provide rockets power to launch off earth.**

ANSWER: **rocket engines** [or **thrusters**; prompt on rockets with "what part of the rocket?"] <Science, Physics, CB>