

CALISTO: California Spring Tournament 2020

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Packet 9 Tossups

1. **In Luke 19:40, Jesus tells the Pharisees that even if his followers “keep quiet,” these objects “will cry out.” The Well of Souls is located under one of these objects that forms the foundation of a shrine on the Temple Mount. During the third day of the Hajj, Muslims throw forty-nine of these objects at three pillars. A black one of these objects is set into the Eastern corner of the (*) Kaaba. After the high priests charge Saint Stephen with blasphemy, he is killed with these objects. Jesus tells “he who is without sin” to cast the first one of these objects at an adulterous woman. For 10 points, name these objects that are thrown by a mob in a form of execution.**
ANSWER: **stones** [or **rock** or **pebbles**; accept Foundation **Stone** or Black **Stone** or Dome of the **Rock** or **stoning** or **stoning** the devil]

<Religion — Dai> [Ed. Venkateswaran]

2. **Versace designed one of these garments for Elizabeth Hurley that was held together by gold safety pins. One of these garments was called “the Ford” in analogy with the ubiquitous Model T. In the Qing dynasty, Manchus popularized a tight-fitting style of these garments called the (*) qipao. Piet Mondrian’s compositions in blue, yellow, and red inspired a collection of these garments by Yves Saint Laurent (“EVE” san-loh-rawn). The “sheath” variety of these garments was popularized by Audrey Hepburn’s role in *Breakfast at Tiffany’s*. Coco Chanel designed the first of these garments to be called “little” and “black.” For 10 points, name these one-piece garments made up of a bodice and a skirt.**

ANSWER: **dress** [accept little black **dress**]

<Fashion — Gray> [Ed. French]

3. **One general at this battle was promoted to field marshal to dissuade him from surrendering. One leader issued Order No. 227 to the defenders at this battle, declaring “Not a step back!” This battle saw heavy fighting take place at Pavlov’s House. In this battle, (*) Georgy Zhukov (zoo-kov) and Aleksandr Vasilevsky (va-SILL-ev-skee) encircled the Sixth Army, led by Friedrich Paulus, during Operation Uranus. This battle thwarted the German advance during Operation Barbarossa. For 10 points, name this battle fought in the city named for the Soviet dictator during World War II.**

ANSWER: Battle of **Stalingrad**

<European History — Lin> [Ed. Hong]

4. **These organisms were researched extensively by John Ostrom, who was the first scientist to claim that these organisms are homeothermic. The presence of a predentary in the jaw and the separation of the pubis and ischium differentiates the two major groups of these diapsids. The orientation of the pelvis of these animals determines whether they are (*) ornithischian or saurischian. The presence of feathers on some of these animals has led to the theory that they are the direct ancestors of birds. The extinction of these animals was hypothesized to be caused by an asteroid impact in the Gulf of Mexico. For 10 points, the Mesozoic era was dominated by what now-extinct reptiles, such as *T. rex*?**

ANSWER: **dinosaurs** [or **dino**s or superorder **Dinosauria**; accept **therapods** or **therapoda** or **sauropods** or **sauropoda**; accept ornithischian **dinosaurs** or saurischian **dinosaurs** or **ornithischia** or **saurischia** before mention; prompt on **diapsids** or **reptiles** before mention]

<Biology — Schwartz> [Edited]

5. **One novel by this author alternates between a world where people lose their minds when their shadows die and a world where Calcutechs fight Semiotecs to protect data. In another novel by this author, a character sees two moons in the sky after leaving a taxi while Janáček’s *Sinfonietta* plays on the radio. That novel ends with Aomame and Tengo leaving an (*) alternate reality.** This author of *Hard-Boiled Wonderland and the End of the World* described a love triangle between the emotionally fragile Naoko, the outgoing Midori, and the college student Toru Watanabe in a novel named after a Beatles song. For 10 points, name this Japanese author of *1Q84* and *Norwegian Wood*.

ANSWER: Haruki Murakami [or Murakami Haruki]

<Long Fiction — Gurazada> [Ed. Schwartz]

6. **One of these facilities known as “Osirak” was attacked in Operation Scorch Sword and later destroyed in Operation Opera. An award-winning oral history about an incident at one of these facilities was written by Svetlana Alexievich. A “sarcophagus” surrounds one of these facilities in which a heap of toxic material known as the (*) “Elephant’s Foot” was found.** One disaster regarding one of these facilities took place on Three Mile Island, while a more recent disaster took place at one of them in Fukushima. For 10 points, name these structures, one of which at Chernobyl underwent a meltdown.

ANSWER: nuclear power plant [accept nuclear reactors or nuclear research facility or atomic pile; prompt on partial answers such as power plant]

<Other History — Shahrar> [Ed. Iyer]

7. **The flower or scented form of this substance is supposedly preferred among people who live near alkaline wells. Imperial regulations led to the decline of the powdered and brick forms of this substance and the rise of its loose form. A legendary origin of this substance is in the Wǔyǐ Mountains. (*) Catherine of Braganza introduced this substance to the British nobility by marrying King Charles II. A common variant of this beverage is grown in the foothills of the Himalayas, the Darjeeling region. Bergamot oil is added to one variety of this beverage to produce its Earl Grey variety.** For 10 points, name this beverage made by steeping its leaves in boiling water.

ANSWER: tea [or chá or chai; accept specific varieties such as black tea or oolong tea or Earl Grey tea]

<Geography — Ma> [Ed. Gray]

8. **The line “the wind is rising... we must try to live!” begins the last stanza of a poem in this language called *The Graveyard by the Sea*. Another poem in this language states “A black, E white” in a section that assigns colors to the vowels. A quote from *The Waste Land* in this language originates from a poem addressed to “my likeness— my brother,” the (*) “hypocrite reader.” *A Season in Hell* and “The Drunken Boat” were written in this language as part of the Symbolist movement, which arose from a collection in this language with sections like “Wine,” “Revolt,” and “Spleen and Ideal.”** For 10 points, name this language used by Arthur Rimbaud and Charles Baudelaire.

ANSWER: French [or le français or la langue française]

<Poetry — Schwartz> [Ed. French]

9. In Lenape mythology, a crow named for this thing obtains fire from the Great Spirit. The Waugal exemplifies the mytheme of an animal-deity that takes the form of this thing when travelling between water-holes. During the Dreamtime, the Earth's features are created by a (*) serpent named after this thing in First Australian myths. Heimdall guards a bridge identified with this thing that connects Asgard and Midgard called Bifröst. God sends one of these things to Noah as a promise that he will not send another flood. For 10 points, a leprechaun's pot of gold can be found at the end of what colorful optical illusion?

ANSWER: rainbows [accept Rainbow Crow or Rainbow Serpent or rainbow bridge]
<Mythology — Li/Venkateswaran> [Ed. French]

10. Organisms within these systems are classified as shredders, collectors, and grazers in these systems' "continuum concept." The hierarchy and connectivity of these systems is described by their Strahler order. These ecosystems, which are lotic, are surrounded by buffer regions called (*) riparian zones. These systems deposit loose eroded sediment called alluvium. These systems form billabongs, or oxbows, when their meanders are cut off. Smaller branching systems of this type are called tributaries. For 10 points, name these freshwater bodies that contain flowing water.

ANSWER: ivers [or streams or brooks or creeks; accept tributaries before "tributaries"]
<Earth Science — Gurazada> [Ed. French]

11. This author argued that "every writer creates his own precursors" in an essay on Kafka. In a story by this author, the narrator trades a Wycliffe Bible for the title book, which he hides behind some volumes of the *Thousand and One Nights*. A book that does not mention time and a book with (*) infinitely many pages are discussed in two of this author's many stories centered on fictional books. In a story by this author, the German spy Yu Tsun murders Stephen Albert after Albert identifies a convoluted book as Ts'ui Pen's legendary labyrinth. For 10 points, name this blind Argentinian author of "The Book of Sand" and "The Garden of Forking Paths."

ANSWER: Jorge Luis Borges (BOR-hess) [or Jorge Francisco Isidoro Luis Borges Acevedo]
<Short Fiction — Schwartz> [Ed. French]

12. This composer imitated J. S. Bach in writing a wedge fugue and wrote an A major fugue with no dissonance. This composer's fifteenth string quartet consists of six *adagio* movements, and he included three *largo* movements in his C minor eighth string quartet, which quotes his (*) DSCH ("D-S-C-H") cryptogram. This composer was accused of formalism in the *Pravda* article "Muddle Instead of Music," spurring the composition of his D minor fifth symphony. This composer's seventh symphony features a 22-bar snare drum ostinato in its "invasion theme." For 10 points, name this Soviet composer of the *Leningrad* Symphony.

ANSWER: Dmitri Shostakovich [or Dmitri Dmitriyevich Shostakovich]
<Classical Music — Ma> [Edited]

13. The Wurts brothers constructed a canal to transport material produced by workers in this industry. A union of workers in this industry was led by future CIO ("C"- "I"- "O") leader John L. Lewis. The Matewan Massacre, which targeted workers in this industry, led to the Battle of Blair Mountain. An attack on workers in this industry was ordered by John D. Rockefeller Jr. in the Ludlow Massacre. Irish workers in this industry made up a large portion of the (*) Molly Maguires. Workers in this industry often went on strike while working in the Appalachian mountains, most prominently West Virginia. For 10 points, name this industry whose workers extract anthracite from the ground.

ANSWER: coal industry [or coal mining industry; accept coal miners; prompt on miners or mining industry by asking "What did they mine?"]
<U.S. History — Shahriar> [Ed. Iyer]

14. According to one book, these people view themselves as “debtors to” rather than “heirs of the ages.” Prisoners of war who were these people didn’t try to contact their families and freely shared military information with their captors. The book noting this, which is partially named after the throne of these peoples’ (*) emperor, contrasted these people’s “shame culture” with the “guilt culture” of the U.S. These people are the subject of Ruth Benedict’s anthropological study *The Chrysanthemum and the Sword*. For 10 points, name these people, some of whom committed kamikaze attacks on the U.S.

ANSWER: Japanese people [or Nihonjin; accept Japanese soldiers]
<Anthropology — Gray> [Edited]

15. Chemical species named for this scientist are classified based on their size and polarizability in hard-soft theory. An electrophilic aromatic substitution named for Friedel and Crafts is catalyzed by species named for this scientist, such as aluminum trichloride. Constructs named for this scientist are created by minimizing (*) formal charge and satisfying the octet rule. This scientist’s definition classifies acids and bases as electron-acceptors and electron-donors, respectively. Diagrams named for this scientist count valence electrons on each atom in a compound. For 10 points, name this American scientist whose dot structures are used to visualize bonding.

ANSWER: Gilbert Newton Lewis
<Chemistry — Gurazada> [Edited]

16. An effigy of this artist’s *Blue Nude (Souvenir of Biskra)* was burned after it was shown in the Chicago Armory show. Sergei Shchukin (SHOO-kin) commissioned two paintings from this artist which depict five reddish nudes on a blue and teal background. After the 1905 Salon d’Automne (dah-TUHM), Louis Vauxelles (vox-EL) described the group this artist led as (*) “wild beasts.” Vivid nudes lounge on a yellow beach under colorful trees in a painting by this artist, while in another, five nudes join hands to form a circle. For 10 points, name this Fauvist painter who embedded a miniature copy of his *The Dance* in his *The Joy of Life*.

ANSWER: Henri Matisse [or Henri Émile Benoît Matisse]
<Painting — Li/Malouf> [Ed. Ma]

17. Voltage regulators may use a type of these devices designed to undergo avalanche breakdown at the Zener voltage. Four of these devices form a “bridge” which helps convert AC to DC in full-wave rectifiers. A p-n junction acts as a simple one of these devices. Like an electrolytic capacitor, the anode of one of these devices is the side with the (*) longer lead. On circuit diagrams, these devices are represented by a triangle whose point connects to a straight line. For 10 points, name these devices which only allow current to flow in one direction, some of which are “light emitting.”

ANSWER: diodes [accept light emitting diodes or LEDs]
<Physics — Schwartz> [Ed. French]

18. This structure was targeted during the joint Operation Musketeer. The Convention of Constantinople declared this structure a neutral zone under a certain country’s protection. Lester Pearson won a Nobel Prize for negotiating the end of a conflict over this structure. One leader indicated the start of an invasion of this structure by deliberately pronouncing the name (*) Ferdinand de Lesseps, one of this structure’s creators. Anthony Eden resigned after a conflict known as this structure’s namesake “crisis.” This structure shortened travel time between India and Europe by months. For 10 points, name this canal in Egypt.

ANSWER: Suez Canal [or Qānat al Suwais]
<British/Commonwealth History — Iyer> [Edited]

19. This player replied to an NFL tweet showing he hit 21.85 miles per hour on a touchdown run by asking Usain Bolt if he wanted to “speed train [that] offseason.” In early 2019, this player’s general manager claimed that “we didn’t sign” this player “to trade him,” but this player was nevertheless traded two months later to play with his former LSU teammate (*) Jarvis Landry. In 2016, this player punched a kicking net after an interception was thrown by quarterback Eli Manning. For 10 points, name this Cleveland Browns wide receiver who won the 2015 ESPYS play of the year for a one-handed touchdown catch while playing for the New York Giants.

ANSWER: Odell **Beckham** Jr. [or Odell Cornelius **Beckham** Jr. or **OBJ**]

<Pop Culture — Venkateswaran> [Edited]

20. In this play, a character compares “that was, to this / Hyperion to a Satyr.” In a later speech, that character declares, “my thoughts be bloody, or be nothing worth” after being inspired by a passing army. A soliloquy in this play begins, “O that this too too solid flesh would melt.” In this play, a character remarks that “conscience does make cowards of us all” after musing, “to (*) die, to sleep; / To sleep, perchance to dream.” In this play, Fortinbras becomes king when the title character dies after killing Laertes and Claudius. For 10 points, name this Shakespeare tragedy about a Prince of Denmark who asks, “to be, or not to be.”

ANSWER: ***Hamlet***

<Drama — French> [Edited]

Packet 9 Bonuses

1. In this play, the servant Dorine learns that Mariane is supposed to marry the title character. For 10 points each:
[10] Name this farce. The title character of this play tries to seduce Orgon's wife Elmire, but later is arrested after trying to arrest Orgon.

ANSWER: **Tartuffe** [or **Tartuffe**, or *The Impostor*, or *The Hypocrite*]

[10] This French playwright wrote *Tartuffe*. He died after collapsing while performing his play *The Imaginary Invalid*.

ANSWER: **Molière** [or Jean-Baptiste **Poquelin**]

[10] In this other Molière play, Arnolphe tries to get Agnès to marry him, but a series of misunderstandings results in her marrying Horace, with whom she is in love.

ANSWER: *The **School for Wives***

<Drama — Venkateswaran> [Edited]

2. Early adoption of the structured programming paradigm was motivated by this statement's potential to make code confusing. For 10 points each:

[10] Name this statement, common to many early languages like dialects of BASIC and Pascal. This statement is implemented using `jump` assembly-language instructions and might point to a label or just a line number.

ANSWER: **goto** (go to) statement

[10] This computer scientist wrote an article about the `goto` statement which first used the phrase "considered harmful." The A* (A-"star") algorithm generalizes this scientist's algorithm for finding the shortest path in a graph.

ANSWER: Edsger Wybe **Dijkstra** (DIKE-stra)

[10] One way to avoid `goto` statements is through `continue` and `break` statements inside these constructs. In many languages, there are `for` and `while` kinds of these constructs, which repeat statements several times.

ANSWER: **loop**

<Computer Science — Gray> [Edited]

3. Franz Liszt used themes by Niccolò Paganini for six "Grandes" pieces of this type, including "La Campanella." For 10 points each:

[10] Name this type of piece that is designed to help learners of an instrument master particular skills. Carl Czerny ("CHAIR"-nee) wrote many works of this type for piano.

ANSWER: **études**

[10] This composer's Opus. 10 and Opus 25 Études include "Wrong Note," "Winter Wind," and "Revolutionary." He used a repeating A-flat to represent raindrops in his *Raindrop Prelude*.

ANSWER: Frédéric **Chopin** [or Frédéric François **Chopin**]

[10] This composer's Op. 33 and 39 are sets of "Études-Tableaux," (ay-TOOD tab-LO) which call for both extreme technique and interpretive vision. He used a Chopin prelude as the basis of his *Variations on a Theme of Chopin*.

ANSWER: Sergei **Rachmaninoff** [or Sergei Vasilyevich **Rachmaninoff**]

<Classical Music — Gurazada> [Ed. French]

4. For 10 points each, answer the following about Thomas Cranmer:

[10] Cranmer was the Archbishop of Canterbury from 1533 to 1556 under Edward VI and this monarch. The Church of England split from the Catholic Church because this monarch wanted to divorce Catherine of Aragon.

ANSWER: **Henry VIII** [prompt on Henry]

[10] Cranmer compiled the first version of this book, which the first Act of Uniformity standardized as the only approved Anglican liturgy.

ANSWER: **Book of Common Prayer** [accept *The First Prayer Book*]

[10] An early Cranmer book and the 28th of the *Thirty-Nine Articles* were written against this Catholic doctrine. According to this doctrine, the bread and wine of the Eucharist literally become the body and blood of Christ.

ANSWER: **transubstantiation**

<Religion — Gray> [Edited]

5. In an interview with James Creelman, this leader declared that he would allow fully democratic elections at the end of his current term, but he didn't. For 10 points each:

[10] Name this leader, who encouraged American investment in his country. He was advised by José Limantour and other so-called *científicos* (see-ehn-TEE-fee-cohs).

ANSWER: Porfirio **Díaz**

[10] Porfirio Díaz began his seventh term in this position after fraudulently winning the election of 1910, despite opposition from Francisco Madero. Since 1929, this position was held by members of the PRI until the 2000 election of Vicente Fox.

ANSWER: **President of Mexico** [or **Presidente de México** or **President of the United Mexican States** or **Presidente de los Estados Unidos Mexicanos**; prompt on president or presidente]

[10] While President of Mexico, Porfirio Díaz secured the development of over 10,000 miles of this infrastructure. The United States brokered the Gadsden Purchase to gain space for the Southern Transcontinental line of this infrastructure.

ANSWER: **railroads** [or **railways** or **rails**; accept **trains** or train **tracks**]

<Latin American History — French> [Edited]

6. A type of telescope invented by this scientist uses a concave primary mirror and a flat diagonal secondary mirror. For 10 points each:

[10] Name this scientist, who proposed that light was made up of discrete particles called “corpuscles” in his 1704 treatise *Opticks*.

ANSWER: Sir Isaac **Newton** [accept **Newtonian** telescope or **Newtonian** reflector]

[10] Reflecting telescopes such as Newtonian telescopes are contrasted with telescopes that use this process. The ratio between the speed of light in vacuum and the speed of light in a material is equal to that material's “index” of this process.

ANSWER: **refraction** [accept index of **refraction** or **refractive** index]

[10] Much of Newton's *Opticks* describes this phenomenon, in which the index of refraction of a material depends on the wavelength of the refracting light. White light splits into a rainbow when it passes through a prism due to this phenomenon.

ANSWER: **dispersion** [accept chromatic **dispersion** or **dispersive** media]

<Physics — Schwartz> [Ed. Gurazada]

7. This essay illustrates that relationships between women are portrayed simplistically in literature with the example sentence “Chloe liked Olivia.” For 10 points each:

[10] Name this extended essay. It also imagines Shakespeare’s equally talented sister Judith being silenced because of her gender.

ANSWER: “A **Room of One’s Own**”

[10] “A Room of One’s Own” was written by this modernist author. This author described Clarissa’s attempt to host a party in *Mrs. Dalloway*.

ANSWER: Virginia **Woolf**

[10] Virginia Woolf used this literary technique in novels like *Mrs. Dalloway*, *To the Lighthouse*, and *The Waves*. It is characterized by narration that comes directly from a character’s thoughts, often ignoring punctuation and grammar.

ANSWER: **stream of consciousness**

<Essay — Schwartz> [Edited]

8. For 10 points each, answer the following about African-American singer William Warfield:

[10] William Warfield sang this standard for the 1951 film adaptation of *Showboat*. In this song, a stevedore muses that the title entity “just keeps rollin’ along.”

ANSWER: “**Ol’ Man River**”

[10] After *Showboat*, Warfield starred alongside Leontyne Price in a renowned production of this opera. In this opera, the two title characters sing the song “Summertime” while working on Catfish Row.

ANSWER: **Porgy and Bess** (by George Gershwin)

[10] Like his contemporary Paul Robeson, Warfield sang mainly in this vocal range, below baritone. This vocal range makes up the “B” in a standard SATB choir.

ANSWER: **bass** [accept **bass-baritone**]

<Musicals — French> [Edited]

9. An aqueduct that this ruler finished brought water from the Caeruleus (chai-RULE-ee-us) spring. For 10 points each:

[10] Name this emperor who also built the Anio Novus aqueduct as a part of his public works campaign. This emperor ordered the draining of the Fucine lake in order to increase the amount of arable land for Rome.

ANSWER: **Claudius** [or Tiberius **Claudius** Caesar Augustus Germanicus]

[10] Claudius was crowned emperor by this group after he was found hiding behind a curtain. This elite unit was tasked with protecting the emperor, but often killed the emperor instead.

ANSWER: **Praetorian** Guard [or Cohortes **Praetoriae**]

[10] Claudius was succeeded by this emperor. Cassius Dio claimed that this emperor apocryphally twiddled his thumbs during the Great Fire of Rome in 68 AD.

ANSWER: **Nero** [or **Nero** Claudius Caesar Augustus Germanicus]

<Ancient/Classical History — Iyer> [Edited]

10. Performing this action requires 1.21 gigawatts of power and a modified DeLorean going at 88 miles per hour. For 10 points each:

[10] Name this activity which is made possible by Doc Brown's "flux capacitor" in the 1985 film *Back to the Future*.

ANSWER: **time travel** [accept equivalents like **traveling through time** or **going back in time**]

[10] A time-traveling dinosaur hunter, Eckels, changes history by stepping on one of these animals in the Ray Bradbury short story *A Sound of Thunder*. In an effect named after this animal, small initial perturbations chaotically result in much larger future changes.

ANSWER: **butterfly** [accept **butterfly** effect]

[10] One of the ways we ascribe directionality to time is through entropy inevitably increasing, a time-irreversible process. That asymmetry of time is referred to using this phrase coined by Arthur Eddington.

ANSWER: time's **arrow** [or the **arrow** of time]

<Mixed/Other — Schwartz/Gray> [Edited]

11. The few historical records that mention this man all say he was merely in charge of defending the French border with the Bretons. For 10 points each:

[10] Name this military commander. His life was greatly dramatized in his eponymous *chanson de geste*, the earliest surviving piece of French literature.

ANSWER: **Roland** [or **Orlando**; accept *Song of Roland* or *La Chanson de Roland*]

[10] Roland served this King of the Franks and son of Pepin the Short who was crowned Emperor of the Romans on Christmas Day in the year 800. This king's realm was divided by his three grandsons in the Treaty of Verdun.

ANSWER: **Charlemagne** [or **Charles the Great** or **Charles I** or **Carolus Magnus**; prompt on **Charles**]

[10] *La Chanson de Roland* is a retelling of this battle in which Roland dies. Charlemagne's rear guard was ambushed by Basque forces during this battle, which occurred during his retreat across the Pyrenees.

ANSWER: Battle of **Roncevaux Pass**

<European History — Shahriar> [Ed. Ma]

12. For a matrix, this quantity equals both the dimension of the column space and the dimension of the row space. For 10 points each:

[10] Name this quantity, which is the dimension of the image of a linear transformation. For a transformation between finite dimensional vector spaces, the dimension of the domain equals the nullity plus this quantity.

ANSWER: **rank** [accept column **rank** and row **rank**]

[10] A matrix is said to have full rank when its rank equals the dimension of its domain, implying that this vector is the only element of its nullspace. This vector is the identity for vector addition, and it has no magnitude.

ANSWER: **zero** vector

[10] If an n -by- n matrix has full rank, then it must also have this property. A matrix has this property if and only if its determinant is not equal to zero.

ANSWER: **invertible** [accept word forms like **invertibility** or having an **inverse**; accept having **n pivots** or having **linearly independent columns** or having **linearly independent rows** or **columns span** the codomain or **rows span** the codomain or the associated transformation is **one-to-one** or the associated transformation is **onto** or the associated transformation is **surjective** or the associated transformation is **bijective** or the associated transformation is **injective**]

<Math — Dai> [Ed. French]

13. The Steele dossier claimed that pro-Russian politician Viktor Yanukovich (yan-uh-KOH-vich) gave kick-backs to this former campaign manager for Donald Trump. For 10 points each:

[10] Name this person, who with his associate Rick Gates consulted for Yanukovich. After being indicted by the Mueller Report, this man pled guilty to conspiracy to defraud the United States, among other charges.

ANSWER: Paul **Manafort** [or Paul John **Manafort** Jr.]

[10] When Manafort consulted for him, Viktor Yanukovich was the president of this country. Shortly after Yanukovich was deposed, Russia annexed the Crimean Peninsula from this country.

ANSWER: **Ukraine**

[10] Manafort, Donald Trump, Jr., and Russian lawyer Natalia Veselnitskya were involved in a 2016 meeting at this location that sought to dig up dirt on Hillary Clinton.

ANSWER: **Trump Tower** [or **721 Fifth Avenue**; prompt on Manhattan or New York City]

<Current Events — Lin/Gray> [Edited]

14. This poem laments a man who was “my north, my south, my east and west / My working week and my Sunday rest.” For 10 points each:

[10] Name this poem, which requests “aeroplanes” to write “the message ‘He is Dead.’” This poem begins with a command to “Stop all the clocks.”

ANSWER: “**Funeral Blues**”

[10] “Funeral Blues” is a poem by this author. This author remarked that his line “we must love one another or die” was “a damned lie” and later changed it to “we must love one another and die.”

ANSWER: W. H. **Auden** [or Wystan Hugh **Auden**]

[10] In “September 1, 1939,” Auden wrote that he is “composed... of Eros and of” this substance. In the King James Bible, God tells Adam that this substance “thou art, and unto” this substance “shalt thou return.”

ANSWER: **dust**

<Poetry — Iyer/Schwartz> [Ed. French]

15. These things are traded on foreign exchange markets, and the rates of exchange between them determine their relative values. For 10 points each:

[10] Give this term that refers to a system of money used as a medium of exchange, such as the Japanese yen or the U.S. dollar.

ANSWER: **currency** [accept **legal tender**]

[10] Currencies may either be floating or referred to by this term. Currencies of this kind have their value tied by a static exchange rate to another currency, usually the U.S. dollar or the Euro.

ANSWER: **fixed** [or **pegged**]

[10] Special Drawing Rights are a quasi-currency for this international organization, which tries to maintain global economic stability by stabilizing exchange rates. The Bretton Woods Agreement created the World Bank and this organization.

ANSWER: **IMF** [or **International Monetary Fund**]

<Economics — Shi/Gray> [Ed. Gray]

16. In this technique, particles may be ionized and fragmented via EI, ESI, or MALDI. For 10 points each:
[10] Name this chemical technique, in which fragments are sent through a magnetic field to find their mass to charge ratio. It is often performed in tandem or in combination with gas chromatography.

ANSWER: **mass spectrometry** [or **mass spectroscopy** or **MS**]

[10] This peak in mass spec corresponds to a fragment with mass one *higher* than the molecular mass of a compound. It often occurs due to the presence of a carbon-13 atom.

ANSWER: **M+1** peak

[10] Compounds containing an atom of this halogen produce an M+2 peak one third the size of the M peak due to the relative abundance of this halogen's 35 and 37 isotopes. This element is the second-lightest halogen after fluorine.

ANSWER: **chlorine** [or **Cl**]

<Chemistry — Gurazada> [Edited]

17. This character is arrested at Stonehenge after killing the libertine Alec, who had raped her. For 10 points each:

[10] Name this character, who marries Angel Clare after discovering that she might be descended from a noble family.

ANSWER: **Tess** [or Tess of the **d'Urbervilles** or Tess d'**Urberville** or Tess **Durbeyfield**]

[10] This author wrote *Tess of the d'Urbervilles*. Many novels by this author, such as *Far From the Madding Crowd* and *The Mayor of Casterbridge*, are set in the fictional region of Wessex.

ANSWER: Thomas **Hardy**

[10] Thomas Hardy also wrote this novel, in which the title stonemason's son Little Father Time hangs himself and his siblings. In this novel, Sue Bridehead abandons her lover for Mr. Philoston after she suffers a miscarriage.

ANSWER: ***Jude the Obscure***

<Long Fiction — Schwartz> [Edited]

18. An Art Nouveau (noo-VOH) -inspired movement located in this city produced the magazine *Ver Sacrum*. For 10 points each:

[10] Name this city. A mural in this city depicting the daughters of the demon Typhon was painted by a proponent of this city's fin-de-siècle (fan duh see-eck-el) culture.

ANSWER: **Vienna**

[10] That *Beethoven Frieze* was created by this artist of the Vienna Secession. He also painted *The Kiss*.

ANSWER: Gustave **Klimt**

[10] *The Kiss* was painted at the height of Klimt's period named for this material. This material dominates the body and background in works by Klimt like *Portrait of Adele Bloch-Bauer I* (UH-del-uh "block" BAUGH-er "the first").

ANSWER: **gold** [or **gold** leaf; accept **golden** period]

<Painting — Ma> [Ed. Malouf]

19. If a cell is in an environment described by this term, it tends to *take on* water. For 10 points each:

[10] Name this term, which describes an environment in which the concentration of solute is *lower* in the environment than in the cell.

ANSWER: **hypotonic** [do NOT accept or prompt on "hypertonic"]

[10] Organisms from this kingdom tend to prefer hypotonic environments, which allow them to keep their cells turgid. Cells belonging to organisms in this kingdom are surrounded by a cell wall made of cellulose.

ANSWER: **plants** [or **Plantae**]

[10] A cell in a hypotonic environment can use these proteins to take on water. These proteins contain six membrane-spanning alpha helices and can passively transport up to three billion molecules of water per second.

ANSWER: **aquaporins** [or **AOPs**; accept **aquaglyceroporins**]

<Biology — Schwartz/Gurazada> [Ed. Gurazada]

20. This president's would-be assassin attempted to attract the attention of actress Jodie Foster. For 10 points each:
[10] Name this US President who was elected in 1980 and almost assassinated in 1981 by John Hinckley Jr. After that event, he joked to his wife Nancy that he "forgot to duck."

ANSWER: Ronald **Reagan** [or Ronald Wilson **Reagan**]

[10] Nancy Reagan, with her husband's support, pioneered this anti-drug advertising campaign. The "Stop the Madness" music video was a highlight of this campaign.

ANSWER: **Just Say No**

[10] This press secretary to Ronald Reagan was wounded and permanently disabled in the attempted assassination of Reagan and inspired a later handgun bill signed into law in 1993.

ANSWER: James Scott **Brady**

<US History — Shahriar> [Ed. Iyer]