

## Cal's Mid-Spring Tournament 2018

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Tossups

1. **Two of this author's characters have their first kiss in a mirror-covered room in a villa filled with grotesques. That happens in a novel ending with Eleonora da Fonseca Pimentel cursing the main characters for their selfishness, declaring "Damn them all." In a story by this author, Ursula notes that in a story it's possible to write "He's still alive" but in a painting or photograph you can't show the concept of "still." Ellen Lee accused this author of plagiarizing books like (\*) Willa Cather's *My Mortal Enemy* in a novel about the actress Helena Modjeska ("maw-JESS-kuh"). An essay by this author is about "the triumph of the epicene style," which "sees everything in quotation marks." A novel by this woman fictionalizes the lives of William and Emma Hamilton. Max says "At first he was just losing weight, he felt only a little ill" at the beginning of a dialogue-heavy story by this author about the AIDS crisis. For 10 points, name this author of *In America*, *The Volcano Lover*, and "The Way We Live Now," as well as the essay "Notes on Camp."**

ANSWER: Susan Sontag

<WN, Long Fiction>

2. **A 2004 study which used microsatellite data to identify these things with 99 percent accuracy was co-authored by Heidi Parker and Elaine Ostrander. The networking of C. A. Sharp relating to a particular example of one of these things is analyzed in a 2007 book which considers the significance of the "stories" we tell about these things and their origins in relation to their "material-semiotic" character. The issue of how these things are joined with "collectively organized people" is analyzed in that book by Donna Haraway. Formal (\*) descriptions of these things often identify sets of "disqualifications" and "faults." A U.S. organization recognizes 190 of these things classified in seven major groups. These things are evaluated against normative standards at Crufts, a major conformation show. Ailments like hip dysplasia and airway obstruction increasingly affect some of these things due to the obsession with purity promoted by kennel clubs. For 10 points, give this term for a type of *Canis lupus familiaris*, examples of which include the Lhasa Apso and the German Shepherd.**

ANSWER: dog breeds [or dog types; accept any answer indicating a kind of dog; accept purebred dogs or pedigreed dogs or show dogs; prompt on dogs or species or companion species]

<EC, Other Academic>

3. *Description acceptable.* **According to legend, a nineteenth-century saint named Don Bosco prophesied that this project would be completed in a "land of milk and honey." Over a hundred years before this project was begun, José Bonifácio submitted a plan calling for its implementation. This project was the main goal of a slogan that called for "fifty years of progress in five." The state of Guanabara was formed after this project's completion. Landscape architect Roberto Marx worked on this project, which called for two slab-like, vertical buildings to be built on the (\*) "Monumental Axis." This project was ordered by Juscelino Kubitschek ("zhoo-say-LEE-noo koo-bee-CHECK") and guided by the design of urban planner Lucio Costa, who created a bird-shaped layout for it. Architect Oscar Niemeyer designed buildings as part of, for 10 points, what 1960s project to relocate a South American capital from Rio de Janeiro?**

ANSWER: moving the capital of Brazil to Brasilia [accept moving the capital of Brazil to Brasilia; accept moving the capital away from Rio de Janeiro until "Rio" is read; accept any answers indicating that Brasilia is the new capital; accept answers indicating the construction of Brasilia; prompt on incomplete answers that include one or more underlined parts]

<IJ, World History>

4. An essay by this writer compares words to white ants because they both have a “corrosive function,” and notes that the only way to observe the existence of an apple’s core is to cut the apple, thereby destroying its core. In the epilogue to that essay, this author compares a cloud to a giant Ouroboros (“yew-ruh-BOH-rus”) that “mocks all opposites” as he flies in an F104 fighter. The narrator of a novel by this author muses about the connection between excrement and the Earth when he sees a “night-soil man” pass him in the street. The protagonist of that novel is a weakling child who daydreams about (\*) cannibalizing a fellow student and pretends to be attracted to Sonoko to hide his homosexuality. This founder of the Shield Society described his quest for physical perfection through bodybuilding in his essay *Sun and Steel*. For 10 points, name this Japanese novelist who committed *seppuku* after staging a failed coup in 1970, and who wrote *Confessions of a Mask*.

ANSWER: Yukio Mishima [or Kimitake Hiraoka]

<JN, Misc Literature>

5. A woman preparing for a trial instructed this figure to dress as a peasant, carry her, and intentionally trip so she would land on top of him. After a sexual encounter, this man jumped between beds in order to avoid flour on the floor. This man rescued the minstrel Gandin for a king he had deceived in the guise of a musician. This man, whose story was told in German by Gottfried von Strassburg, got a ring in exchange for his dog Husdant after he was banished. Similarly to Aegeus (“ee-JEE-us”), this man died after hearing of (\*) black sails. This son of King Melodias repeatedly duels his Saracen friend Palamedes (“pal-uh-MEE-deez”). A piece of this man’s sword was found in the body of his victim Morholt by his future lover, who shares her name with a daughter of King Hoel of Brittany named for her white hands. This knight from Lyonesse (“lye-uh-NESS”) was sent to Ireland to find the future bride of his uncle, King Mark, but fell in love with her after accidentally drinking a love potion. For 10 points, name this knight who carried out an affair with Isolde (“ih-SOLD”).

ANSWER: Tristan

<JX, Legends>

6. The song “Glory” ends with a soft-shoe “trio” choreographed by this man that was supposedly inspired by Charles Manson. Satirical sections like “The Aloof” and “The Heavyweight” are included in a dance by this man that features hinge walks and its title style, the “Rich Man’s Frug” (“froog”). A series of taxi dancers approach a ballet bar one by one in a number choreographed by this man, while another of his numbers opens with “six merry murderesses” repeating words like “Pop,” “Six,” and “Squish” before singing how “he had it coming” as they grab (\*) jail bars. This man’s experience in vaudeville and inability to turnout informed his namesake “Amoeba,” utilizing turned-in knees, hip rolls, jazz hands, and props like bowler hats and gloves, seen in the numbers “Big Spender” and “Cell Block Tango.” That “style” was preserved by this man’s wife Gwen Verdon, who starred in many of his musicals, including *Pippin*, *Damn Yankees*, and *Sweet Charity*. For 10 points, name this Broadway director-choreographer whose jazzy seductive style is exemplified by *Chicago* and films like *Cabaret*.

ANSWER: Bob Fosse (“FOSS-ee”) [or Robert Louis Fosse]

<RK, Other Art (Dance)>

7. It’s not seaweed, but anthropologist Kaori O’Connor has written a global history of this plant, while Gary Okihiro has written one centering on its kind of “culture.” A painting sometimes attributed to Hendrick Danckerts depicts Charles II receiving this type of plant. In Victorian England, this plant was often grown in a type of “pit,” a variant on the hothouse method of its cultivation. In the eighteenth century, this plant was commonly associated with hospitality, which led it to become a popular architectural motif. An architectural folly shaped like this type of plant is in Dunmore Park in Scotland. The tops of the towers of St. Paul’s Cathedral in London feature finials shaped like this plant. A light (\*) fiber derived from this plant is traditionally used to make the Barong shirt. This plant’s fruit forms the base of the candle salad, an arguably phallic dessert popular in the 1950s. A type of cake named for this ingredient is distinguished by the fact that it is flipped over after being cooked. For 10 points, identify this tropical fruit which was cultivated by James Dole in Hawaii.

ANSWER: **pineapple** [or *Ananas comosus*]

<MC, Other History>

8. It doesn't contain nitrogen, but this ion is found in a compound that is in a one-to-two ratio with urea in a common deep eutectic solvent. The addition of a compound containing two of these ions to carboxylic acids produces sulfur dioxide gas. This ion is produced after the collapse of the pentavalent silicon intermediate that forms during the reaction of TBS with an alcohol. Amines are protected by replacing these anions in FMOc ("F-mock"). An acid containing this anion is produced by most SN2 reactions of an alcohol with a (\*) tosyl ("TOSS-ill") group. Carboxylic acids are converted to a very reactive acid derivative through nucleophilic acyl substitution using an electrophile with five of these ions bonded to phosphorus. The Friedel-Crafts reaction is often catalyzed by a strong Lewis acid containing this anion and aluminum. This ion's acid is used along with a zinc amalgam to reduce phenones in the Clemmensen reduction. For 10 points, name this anion that is found in the acid HCl.

ANSWER: **chloride** [accept acid **chlorides** or **Cl-minus**; do not accept or prompt on "chlorine"]

<RD, Chemistry>

9. Multiple examples of these things are combined into a "hyperblock" in the EDGE ("edge") design, while a fixed number of them are combined into a "long" one in VLIW, unlike the dynamic approach of superscalar designs. A table with an "Issue" column keeping track of these things is used with a functional unit status table in a technique called scoreboarding. Using one of these things called no-op or using branch prediction can resolve dependency issues between these things; those dependency issues between them come in structural, control, and data types that are collectively known as (\*) hazards. The number of data streams and streams of these things is used for classification in Flynn's taxonomy. The "fetch" and "decode" of these things are the first two steps in the standard five-stage model for parallelizing these things. RISC ("risk") processors rely on a more modular ISA ("I-S-A"), or [these things] set architecture, and they are performed in parallel in pipelining. For 10 points, name these smallest units of computation performed by lines of assembly code.

ANSWER: **instructions** [or **instruction** pipelining; or **instruction** set architecture; prompt on vague terms like CPU operations or lines of assembly code]

<AK, Computer Science>

10. This artist used a thin brown pigment for a scumbling technique called *frottis* ("fraw-TEE") in many of his unfinished portraits, such as one missing a sewing needle in its depiction of Madame Pastoret. During this painter's late career in Brussels, he painted two sisters sitting on a sofa and holding a creased letter addressed to them from Philadelphia. A double portrait by this artist references the drawing lessons he gave its female subject with a large green folio propped up on a chair in the left background. A clock reading four-thirteen and a nearly burnt out candle appear in a portrait by this artist in which a man (\*) tucks his hand into a pocket on his jacket. The letters "COD" on an official document can be seen in that portrait by this artist, who painted a double portrait in which a man looking up at his wife juts his leg out in front of a red velvet table with several scientific instruments. He also painted a socialite reclining on a sofa in his *Portrait of Madame Récamier* ("ray-com-YAY"). For 10 points, name this Neoclassical portraitist of *Antoine-Laurent Lavoisier* ("on-TWON-loh-RON lah-vwahz-YAY") and his wife, who also painted *The Death of Marat* ("mar-AH").

ANSWER: Jacques-Louis **David** ("dah-VEED")

<AK, Painting/Sculpture>

11. Max Gluckman theorized that rebellious forms of these things can actually improve social cohesion. Clifford Geertz's ("GURTS-iz") dichotomy between "ethos" and "worldview" helps explain how these things act as "windows" to our world in a Catherine Bell book titled for their theory and practice. Stanley Edgar Hyman and William Robertson Smith were among the earliest scholars to insist on the primacy of these things, influencing a school whose members included F. M. Cornford and Gilbert Murray. A book about

**these events introduced the concept of (\*) *communitas*** (“kuh-MEW-ni-tahs”), which the author defined as characteristic of “anti-structure,” rather than structure. Ralph Linton’s theories inspired a satirical article about these events, some of which are performed by “holy mouth men,” written by Horace Miner. The book *The Forest of Symbols*, which examines these events among the Ndembu (“in-DEM-boo”) tribe, popularized the concept of “liminality.” James Frazer was among the first to emphasize the connection between myth and these events. For 10 points, name these traditional activities often conducted by religions, such as pilgrimages or sacrifices.

ANSWER: rituals [accept rites of passage or body rituals]

<RK, Social Science>

**12. This writer criticized the museum-like nature of contemporary theater in the essay “Theater Problems.” In a play by this author, Saint-Claude leads a failed Marxist revolution against the title character’s system of justice, which involves the title character sentencing people to death and his wife Anastasia executing them. A play by this author takes place in a town whose inhabitants symbolically wear yellow shoes. In that play, Jakob Duckling and Walter Perch are hunted down in Canada and Australia, respectively, and (\*) castrated at the behest of the main character, becoming the eunuchs Koby and Loby. In a play by this man, a resident of Les Cerisiers (“suh-reez-YAY”) believes he is regularly visited by King Solomon. This man wrote a play in which the psychiatrist Mathilde von Zahnd takes advantage of the title characters, and one in which the townspeople of Gullen vote to kill Alfred III at the urging of Claire Zachanassian. For 10 points, name this Swiss playwright of *The Marriage of Mr. Mississippi*, *The Physicists*, and *The Visit*.**

ANSWER: Friedrich Dürrenmatt

<JN, Drama>

**13. Joshua Rifkin dated a piece by this composer and published his findings in an article titled for Munich and Milan. In piece by this composer, the central theme begins on successively higher notes with each section, rising through the natural hexachord. Two of his pieces have tripartite final movements with directions to “cry” or “sing” “without ceasing,” respectively; the latter is in Hypolydian (“HY-poh-LID-ee-in”) mode. Those pieces by this composer bookend the first *printed* collection of pieces by a single composer, published by Ottaviano Petrucci. A three-note motif is introduced on the words “Rex effudit” in the second *Kyrie* (“KEE-ree-ay”) section of a (\*) paraphrase mass by this composer. His *Missa La sol fa re mi* uses a technique he developed in which syllables of a phrase map to pitches in the cantus firmus. This composer wrote the lament *Nymphes des bois* (“NAM-fuh day BWAH”) for his teacher Johannes Ockeghem (“OCK-uh-ghem”) and used *soggetto cavato* in his *Missa Hercules Dux Ferrariae*. For 10 points, name this composer of the *Missa Pange lingua* and two masses setting *L’homme armé* (“loh-m ar-MAY”), a Franco-Flemish Renaissance composer.**

ANSWER: Josquin des Prez (“joss-CAN de PRAY”) [accept either underlined answer]

<AK, Classical Music>

**14. The missionary Francis Klein discovered an artifact from this place that was made to commemorate the construction of a “high-place” in Qarcho. That artifact, which possibly contains the earliest non-biblical reference to the “house of David,” was the Mesha Stele (“STEE-lee”), commissioned by a namesake king of this place who referred to himself as the “son of Chemosh (“KEE-mosh”).” After a widow’s two sons died during a sojourn in this place, she told others to call her (\*) “Bitter” instead of “Pleasant.” That widow told two women from this place to leave her, causing Orpah to remain in this place, but the other woman to declare, “Your people shall be my people, and your God my God.” In Genesis, Lot’s drunken incest with his daughters led to births of the progenitors of the Ammonites and this other kingdom. For 10 points, name this kingdom, the homeland of Ruth.**

ANSWER: Moab (“MOH-ab”) [or Moav; accept Moabites; accept Qarcho until it is read]

<WC, Religion>

15. **A King of Germany who fought in this war hid in a windmill while fleeing a rout, where he was taunted with jeers of “come down, come down, thou wicked miller.” A stronghold of people ruined by this war held out for years at the Isle of Axholme. After being cut off from reinforcements led by his son, the leader of the losing side in this war said “May the Lord have mercy upon our souls, as our bodies are theirs” during this war’s decisive battle; those who continued to fight after that battle were offered lenient terms of surrender in the Dictum of (\*) Kenilworth.** This war began after the Provisions of Oxford limiting the authority of the king were annulled. The future Edward I avenged the royal loss at the Battle of Lewes (“Lewis”) in this conflict after defeating Simon de Montfort (“MONT-furt”) at the Battle of Evesham. For 10 points, Henry III faced what thirteenth-century revolt named after a particular rank of the English peerage, which occurred fifty years after a similar uprising?  
ANSWER: **Second Barons’ War** [prompt on **Barons’ War**; do not accept “First Barons’ War”]  
<CP, European History>

16. **Bertrand Russell introduced the now-widely-rejected argument that this philosopher had to toady to his patrons in his published works and kept his rigorously logical true philosophy to himself. This thinker compared the influence of God to the action of a current carrying a boat down a river, arguing that the slowness of the boat is due to its contents, not the current. This philosopher used the example of Judas betraying Christ to illustrate his idea that every substance has a (\*) “complete concept” specifying everything that will ever happen to it in his *Discourse on Metaphysics*.** This philosopher posited a tripartite hierarchy of entelechies (“en-TELL-uh-keez”), souls, and spirits in a book arguing that the “pre-established harmony” regulates things, so that there is no interaction between the simple substances which he described as being “windowless.” For 10 points, name this author of the *Monadology*.  
ANSWER: Gottfried **Leibniz** [or Gottfried Wilhelm von **Leibniz**]  
<WN, Philosophy>

17. **A poem by this author concludes that “on well-run farms pests have to be kept down” and describes the speaker’s memory of seeing a man drown kittens in a bucket. The speaker of one of this author’s poems calls himself “a nuisance, tripping, falling,” since he always got in his father’s way. A poem by this author laments that “to stare, big-eyed Narcissus, into some spring is beneath all adult dignity” and describes the speaker’s childhood obsession with (\*) wells.** This author of “The Early Purges,” “Follower,” and “Personal Helicon” wrote a poem whose title objects “like thickened wine” grow a “rat-grey fungus,” making “their sweet flesh... turn sour.” A poem by this author describes how “whispers informed strangers I was the eldest” after “the bumper knocked him clear,” referencing the death of his brother. That poem ends by describing “a four-foot box, a foot for every year.” For 10 points, name this poet who included “Blackberry-Picking” and “Mid-Term Break” in his collection *Death of a Naturalist*.  
ANSWER: Seamus **Heaney** (“SHAY-mus HEE-nee”) [or Seamus Justin **Heaney**]  
<RK, Poetry>

18. **In one study of these organisms, Schmitter and Jurkiewicz (“yurk-YEV-itch”) identified an accumulation body-like inclusion that stained positively with periodic (“pur-eye-ODD-ick”) acid and Schiff reagent for acid phosphatase activity. A light-harvesting apocarotenoid compound found in these organisms is complexed with chlorophyll for use in FACS (“fax”) and flow cytometry. In these organisms, chromosomal organization is predominantly mediated by the lysine-rich protein NP23 and the phycodnavirus (“fy-COD-nuh-virus”) - derived protein DVNP. In these organisms, the cingulum is a channel that separates two sections of overlapping cellulose plates called the theca and also houses the base of the transverse (\*) flagella.** The scintillon is a cytoplasmic complex present in certain species of these organisms that make use of the tetrapyrrole-compound luciferin for bioluminescence. During winter months, these organisms may revert to a resting “cyst” stage. The best-known phenomenon associated with these organisms typically occurs in phosphate-rich environments and involves the release of toxins like saxitoxin and brevetoxin. For 10 points, name these marine protists whose blooms cause “red tides.”

ANSWER: **dinoflagellates** [or armored **dinoflagellates**; prompt on **protists**; anti-prompt on specific dinoflagellates such as, but not limited to: *Karenia brevis*, *Ceratium hirundinella*, *Alexandrium catenella*, *A. tamarense*, etc.] (The first clue is the PAS body; the second clue is peridinin chlorophyll, or PerCP.)

<RH, Biology>

19. **This man once quoted a quatrain by Homer describing Achilles's shield to end a speech, in which he noted that religious disputes, like the then-recent schism in the Methodist Episcopal Church, were often caused by men who believe that "human duties may be ascertained with the exactness of mathematics." This man criticized his opponent for drifting off topic with the analogy of a mariner finding his location after a storm to open a debate on the (\*) Foot Resolution. In another speech, this man argued that it was pointless to debate about slavery in the territories from the Mexican Cession because plantation agriculture was not sustainable there; he began that speech by identifying himself as an American, rather than as "a Northern man" or "a Massachusetts man." During a debate with Robert Hayne, he declared "Liberty and Union, now and forever, one and inseparable."** For 10 points, name this long-serving senator who defended the Fugitive Slave Act in his Seventh of March speech.

ANSWER: Daniel **Webster**

<JK, American History>

20. **In 2004, Gordienko et al. observed zeptosecond pulses due to this effect resulting from reflection by an overdense plasma. Macroscopic turbulence causes a turbulent velocity squared term to appear in a formula describing this effect. The convolution of a Lorentz profile and a profile named for this effect produces a Voigt profile. Since they do not transfer recoil momentum, collisions decrease the strength of this effect, in a process discovered by (\*) Dicke ("DICK-uh"). The change in width due to this effect is proportional to  $8kT$  over  $m c$ -squared times the natural log of two in its namesake broadening. A form of this effect is quantified by a factor equal to the square root of one plus beta over one minus beta. This effect was observed by passing hydrogen cations in the form of canal rays through charged plates in the Ives–Stilwell experiment. For 10 points, name this effect, name this change in the frequency of a wave due to the relative motion between an observer and source.**

ANSWER: **Doppler** effect [or relativistic **Doppler** effect; or **Doppler** broadening]

<RD, Physics>

## Bonuses

1. This photographer captured a man emerging from a manhole in a collaboration with Ralph Ellison, and his photos of nuns and rural Alabama children were recreated in the music video for Kendrick Lamar's *ELEMENT*. For 10 points each:

[10] Name this photographer whose time with the Farm Security Administration produced *American Gothic*, a photo of an African-American cleaning lady next to her broom and mop in front of the hazy background of the American flag.

ANSWER: Gordon **Parks** [or Gordon Roger Alexander Buchanan **Parks**]

[10] Parks earned a position at *Life* with a series that shows the daily life of Red Jackson, a gang leader of this neighborhood. Photography of this neighborhood often featured shots of Lenox Avenue, and it experienced a cultural renaissance in the 1920s.

ANSWER: **Harlem**

[10] This Harlem Renaissance photographer's best known portrait shows a couple wearing raccoon coats in front of a Cadillac. He often retouched negatives to produce eerie, glowing effects in his *tableaux vivants* ("tob-LOH vee-VON"), superimposing in a ghost-like child in one marriage portrait.

ANSWER: James **VanDerZee**

<AK, Other Art (Photography)>

2. The "cascade" type of this process can be visualized as the introduction of a minor loop in the control block diagram. For 10 points each:

[10] Name this technique in controller design whose "lead-lag" type uses a block with a transfer function with two poles and two zeroes placed so that the two zeroes are between the poles in magnitude.

ANSWER: frequency **compensation**

[10] Frequency compensation is used in the design of this control mechanism, named for its three components. A block diagram of one of these controllers sums a multiple of the error, a sum of the previous values of the error, and the rate of change of the error to calculate the control variable.

ANSWER: **PID** controller [or **proportional-integral-derivative** controller]

[10] By summing the output of a plant with the setpoint to determine the control variable, PID controllers use a "loop" named after this general process in control theory. Whether the output signal is inverted distinguishes the "negative" and "positive" types of this process.

ANSWER: **feedback** [or **feedback** loop; or positive **feedback**; or negative **feedback**]

<AK, Physics>

3. A common attributional bias associated with this process involves blaming one's own failures on external factors, but an actor's failures on internal factors. For 10 points each:

[10] Name this process, also a common method of data collection in psychology that's traditionally contrasted with experimentation. It is often divided into "naturalistic" and "systematic" varieties.

ANSWER: **observation** [prompt on synonyms like watching]

[10] Norman Triplett's observation of various cycling times inspired the discovery of this effect, in which the presence of an audience improves the performance of easy tasks and harms the performance of harder tasks.

ANSWER: **social facilitation** [prompt on audience effect]

[10] Jean Lave ("jeen layv") and Étienne Wenger formulated this type of learning, which requires "legitimate peripheral participation," rather than simple observation. It was extended to theorize "cognitive apprenticeships" by Brown, Collins, and Duguid ("doo-GHID"), who discussed how this type of cognition leads to a "culture of learning."

ANSWER: **situated** [accept **situated** learning or **situated** cognition]

<RK, Social Science>

4. A poem in the collection *Shaker, Why Don't You Sing?* titled for one of these creatures describes it “[standing] on the grave of dreams,” and contrasts it with a creature who “names the sky his own.” For 10 points each:

[10] Name this creature whose “blood is red on the cruel bars” and whose “wing is bruised and... bosom sore” in a poem that describes “a prayer he sends from his heart’s deep core... a plea that upward to Heaven he flings.”

ANSWER: a **caged bird** [prompt on **bird**]

[10] This African-American poet’s “Sympathy” contains the line “I know why the caged bird sings!” He described the “debt we pay to human guile” in a poem about an object “that grins and lies” titled “We Wear the Mask.”

ANSWER: Paul Laurence **Dunbar**

[10] Dunbar gave this label to his poems written in standard English instead of vernacular, like “We Wear the Mask” and “Ode to Ethiopia.” The title of Dunbar’s second collection contrasts this term with its counterpart.

ANSWER: **majors** [prompt on *Majors and Minors*]

<RK, Poetry>

5. This corporation employs a computer system called the “Task Manager” or “MyGuide” to assign its employees with things to do and time limits for doing them. For 10 points each:

[10] Name this corporation, which uses “coachings” to chastise employees who fail to complete those tasks on time. Another technology recently deployed by this company is the InstaPay service of an app called Even, which allows its employees to be paid on a more flexible schedule.

ANSWER: **Walmart** Inc.

[10] Walmart’s use of technology in managing its workforce is often seen as a contemporary example of the system of “scientific management,” which was pioneered by this man and is often named for him. His system is known for breaking work actions down into component tasks and attempting to improve those components’ efficiency.

ANSWER: Frederick Winslow **Taylor** [or **Taylorism**]

[10] Walmart has its second-largest number of stores in this country, where it once tried to pay its employees partially using company scrip. Walmart’s activities in this country were investigated after it allegedly paid bribes to allow it to build a store near this country’s ancient city of Teotihuacán (“tay-oh-tee-wah-KAHN”).

ANSWER: **Mexico** [or United **Mexican** States; or *Estados Unidos Mexicanos*]

<AK, Current Events>

6. While reading a passage from this biblical book, a man was asked, “Do you understand what you are reading?” and replied, “How can I, unless someone guides me?” For 10 points each:

[10] Name this biblical book that was then explained to that man, who then noticed some water by the side of the road, causing him to command his chariot to stop so that he could be baptized.

ANSWER: Book of **Isaiah**

[10] This saint explained the passage from Isaiah to the aforementioned man, an Ethiopian eunuch, and baptized him. This saint also preached in Samaria, where he performed miracles and converted Simon Magus.

ANSWER: **Philip** the Evangelist [do not accept “Philip the Apostle”]

[10] One of the numerous quotations of Isaiah in the New Testament is Simeon’s proclamation that he has seen “a light for revelation to the Gentiles,” when he saw Jesus during Jesus’s presentation in this place.

ANSWER: the **Temple** [or Second **Temple**; or *Beit HaMikdash*]

<WC, Religion>

7. This geographical feature is the subject of Claudio Magris’s magnum opus, which he referred to as a “drowned novel.” For 10 points each:

[10] Name this geographical feature which “had Hercules as a guest” according to a poem which opens with the line “Come to us, fire!”

ANSWER: **Danube** River [or **Ister** River; accept *Danubio* or “Der **Ister**”]

[10] The aforementioned Friedrich Hölderlin (“HULL-der-leen”) poem is the subject of a Martin Heidegger lecture course which also analyzes this Sophocles play whose title character buries her brother Polyneices (“pah-lee-NICE-eez”).

ANSWER: Antigone (“an-TIG-uh-nee”)

[10] Hölderlin wrote a play about this man’s death. In a narrative poem by a different writer, this man declares “To the elements it came from everything will return” shortly before throwing himself into a volcanic crater.

ANSWER: Empedocles (“em-PED-uh-cleez”) [accept *The Death of Empedocles* or *Der Tod des Empedokles*; accept Empedocles on Etna]

<JN, Misc Literature>

8. The artist rejected the *contrapposto* of his earlier sculpture of an elderly man holding a book for this work, the lower half of which is dominated by a shield that goes up to the title figure’s waist. For 10 points each:

[10] Name this sculpture created for the Guild of Armorers that occupied a shallow niche on the north wall of the Orsanmichele (“or-sah-mee-KEH-lay”).

ANSWER: St. George

[10] This Renaissance sculptor created statues of St. George and St. Mark for the Orsanmichele, in addition to his bronze *David*.

ANSWER: Donatello

[10] Below the niche, Donatello used this technique of extremely shallow relief to depict St. George slaying the dragon. Donatello used this technique again in the background arches of *The Feast of Herod* in order to create illusionistic depth.

ANSWER: *rilievo* schacciato (“skee-ah-CHAH-toh”) [or *rilievo* stacciato]

<AK, Painting/Sculpture>

9. This book analyzes three gravestone designs to support its argument that New England and England had similar cultures in the seventeenth century, which diverged and then reconverged in the eighteenth century. For 10 points each:

[10] Name this pioneering work of historical archaeology by James Deetz. This book claims that studying seemingly insignificant artifacts like ceramic fragments can reveal important cultural trends.

ANSWER: *In Small Things Forgotten: An Archaeology of Early American Life*

[10] Deetz argues that freedmen’s shotgun houses at the site of Parting Ways in this city were influenced by West African patterns. Edward Winslow’s *Mourt’s Relation* is an early history of a colony centered in this city.

ANSWER: Plymouth

[10] Deetz’s Eurocentric definition of historical archaeology limits its scope to “the spread of European cultures throughout the world since” this century and its impact on indigenous cultures. Vasco da Gama discovered a sea route to India at the end of this century.

ANSWER: fifteenth century [or 1400s]

<EC, Other History>

10. Midway through this piece, strings continue to play in *Molto adagio* tempo while the rest of the orchestra accelerates and crescendos to tempo *con fuoco*. For 10 points each:

[10] Name this 1906 piece written for strings, two ragtime pianos, and a street band.

ANSWER: *Central Park in the Dark* [accept *A Contemplation of Nothing Serious*]

[10] This composer published *Central Park in the Dark* alongside a thematically-similar piece titled *The Unanswered Question*.

ANSWER: Charles Ives [or Charles Edward Ives]

[10] *Central Park in the Dark* repeatedly quotes the song “Hello! Ma Baby” as well as a piece by this composer of *El Capitan* and “The Thunderer.”

ANSWER: John Philip Sousa (“SOO-zuh”)

<EK, Classical Music>

11. A method of measuring this quantity uses a prism to visualize two green semi-circles that are brought together until their inner edges meet. For 10 points each:

[10] Name this quantity that is measured in Goldmann applanation tonometry. The most common screening test of this quantity uses non-contact tonometry, which measures it using a small puff of air.

ANSWER: **intraocular pressure** [or **IOP**; prompt on fluid pressure or eye pressure]

[10] High intraocular pressure is a symptom of this eye disease, a leading cause of blindness along with cataracts and macular degeneration. This disease can be “closed-angle” or “open-angle” and results from insufficient draining of the aqueous humor.

ANSWER: **glaucoma**

[10] Another indicator of glaucoma is a value higher than 0.3 for the ratio of the size of the optic cup to the size of this structure, the anatomical “blind spot” of the eye where the optic nerve and blood enters the retina.

ANSWER: optic **disc** [or **optic nerve head**; prompt on optic nerve or cranial nerve 2]

<AK, Biology>

12. In a note to Philip Larkin, Kingsley Amis called *A Question of Upbringing* “the most inconclusive book I have ever read,” perhaps not realizing it was just the first installment of this series. For 10 points each:

[10] Name this twelve-volume cycle of novels by Anthony Powell (“POLE”), named for a Nicolas Poussin (“nee-koh-LAH poo-SAN”) painting.

ANSWER: *A **Dance to the Music of Time***

[10] In a Proustian (“PROO-stee-in”) moment at the beginning of *A Question of Upbringing*, this narrator of the series watches workmen warm themselves around a coal brazier, reminding him of Poussin’s painting.

ANSWER: **Nick Jenkins** [accept either underlined portion]

[10] In the final volume of the series, *Hearing Secret Harmonies*, Kenneth Widmerpool falls under the sway of this hippie cult leader and dies while participating in a naked run with his followers.

ANSWER: **Scorpio Murtlock** [accept either underlined portion]

<JN, Long Fiction>

13. This general was known as the “human butcher” for killing over a million enemy soldiers over his career. For 10 points each:

[10] Name this longtime general of the state of Qin, who infamously ordered four hundred soldiers from the state of Zhao (“jow”) to be buried alive after the Battle of Changping.

ANSWER: **Bai Qi** (“bye chee”) [prompt on Bai]

[10] Bai Qi’s bloody campaigns were chronicled by this Han Dynasty eunuch, the author of the *Records of the Grand Historian*.

ANSWER: **Sima Qian** (“suh-mah chyen”) [prompt on Sima; do not accept “Sima Guang”]

[10] Sima Qian worked under this long-reigning “martial” Han emperor. His expansionist policies included sending the explorer Zhang Qian (“jong ch’yen”) to explore China’s western frontier and numerous campaigns against the Xiongnu (“shong-noo”).

ANSWER: Han **Wudi** [or **Liu Che**; prompt on Liu]

<IJ, World History>

14. Kvasir identifies an object of this type from the shape of its ashes after it was thrown into a fire. For 10 points each:

[10] Name this object that Loki makes and tries to destroy while anticipating how the Aesir (“AY-seer”) could catch him. Eventually, Thor catches Loki as he tries to escape from an object of this type.

ANSWER: fish **net**

[10] The binding of Loki is told in both the *Lokasenna* and this first section of the *Prose Edda*, in which the

namesake king tries to find out about the nature of the Aesir and learns about a lot of Norse myths.

ANSWER: **Gylfaginning**

[10] The *Gylfaginning* describes the binding of Loki as revenge for his killing of this god, which Loki causes by giving the blind Hodr an arrow tipped with mistletoe and guiding him to shoot his brother.

ANSWER: **Baldr**

<JK, Legends>

15. A 1961 book critiquing John Austin's approach to these constructs distinguishes between "internal" and "external" points of view in response to these constructs. For 10 points each:

[10] Name these constructs, categorized into "primary" ones and "secondary" ones that govern the creation of the "primary" ones. The latter group contains one of these "of recognition," which determines their validity.

ANSWER: **rules**

[10] H. L. A. Hart's *The Concept of Law*, which defines law as "the union of primary and secondary rules," supports a "legal" form of this philosophy, unrelated to a similarly-named philosophy pioneered by Auguste Comte emphasizing science and sensory experience.

ANSWER: **positivism**

[10] Ronald Dworkin's essay "Model of Rules" critiques Hart's logical positivism by suggesting laws are made of rules and these things, which he contrasts with policies and claims have a "weight," rather than being all-or-nothing.

ANSWER: **principles**

<RK, Philosophy>

16. Answer the following about works of fiction with indexes, for 10 points each:

[10] The reader can discover a secret denouement by rearranging the brief index of this novel about the failed architect Atanas Razin. The second part of this Milorad Pavić ("PAH-veetch") novel has a structure based on a crossword.

ANSWER: **Landscape Painted with Tea** [or **Predeo slikan čajem**]

[10] This novel's index includes one hundred words which are simply listed as "DNE" or "Does Not Exist." A documentary called *The Navidson Record* is featured in a subplot of this novel by Mark Z. Danielewski.

ANSWER: **House of Leaves**

[10] This author's story "The Index" consists of the index to the unpublished autobiography of a man named Henry Rhodes Hamilton. This author is better known for novels like *High-Rise* and *Crash*.

ANSWER: James Graham **Ballard**

<WN, Long Fiction>

17. In an interview published in 1976 titled "Only a God Can Save Us," the interviewee defended ideas which he had earlier presented in a speech in this city, in which he claimed to have opposed the "politicizing of science." For 10 points each:

[10] Name this city, where the "Knowledge Service" was argued to bind "the people to the destiny of the state in a spiritual mission." The speaker aimed to realize "the primordial and full essence of science," and argued that "academic freedom" was "not genuine" and "meant... freedom from concern," and was thus "banished."

ANSWER: **Freiburg** im Breisgau, Germany

[10] That speech on "The Self-Assertion of the German University" was given by this philosopher, who controversially took up the position of Rector of the University of Freiburg during the Nazi period. He invoked his concept of *Dasein* ("DAH-zine") on a number of occasions during the speech.

ANSWER: Martin **Heidegger**

[10] A German thinker with this surname shaped the idea of the modern research university by founding the University of Berlin, which is today named for him and his brother. He pioneered the idea of academic freedom, while his brother pioneered a new type of Romantic science in works like *Kosmos*.

ANSWER: von **Humboldt** [accept **Humboldt** University of Berlin; accept Wilhelm von **Humboldt** or Alexander von **Humboldt**]  
<MC, European History>

18. This mixture of reagents consists of potassium ferricyanide, potassium carbonate, an adduct of phthalazine (“THAL-uh-zeen”) and either dihydroquinine or dihydroquinidine, and potassium osmate as a source of osmium tetroxide. For 10 points each:

[10] Name this mixture of reagents that comes in alpha and beta varieties and is used in a reaction named for Barry Sharpless.

ANSWER: **AD-mix** [or **AD-mix** alpha; or **AD-mix** beta]

[10] The Sharpless asymmetric dihydroxylation produces this functional group from alkenes. Ethylene glycol is an example of this functional group, which is defined by two hydroxyl groups bonded to adjacent carbons.

ANSWER: **vicinal diols** [prompt on **diols**]

[10] Because the Sharpless dihydroxylation is an asymmetric synthesis, its product has this property of not being able to be superimposed on its mirror image.

ANSWER: **chirality**

<AK, Chemistry>

19. Answer the following about civil rights history as told by Canadian Heritage Minutes, for 10 points each:

[10] The second most viewed Heritage Minute on YouTube shows this “Rosa Parks of Canada” getting arrested for sitting in a whites-only area of a segregated theater. This owner of a line of beauty products for black women was given Canada’s first posthumous pardon in 2010 and will appear on the new ten-dollar note.

ANSWER: Viola **Desmond** [or Viola Irene **Desmond**]

[10] Another Heritage Minute explains why Maurice Ruddick, a black survivor of the 1958 Springhill mining disaster, accepted a segregated vacation offered by this state’s governor, Marvin Griffin. A 1964 Supreme Court case ruled that a motel in this state violated the Civil Rights Act by refusing black customers.

ANSWER: **Georgia**

[10] In a classic Heritage Minute, the crowd chants this man’s name after he hits a home run for the Montreal Royals. This second baseman later broke Major League Baseball’s color barrier by playing for the Brooklyn Dodgers.

ANSWER: Jackie **Robinson** [or Jack Roosevelt **Robinson**]

<EC, American History>

20. Glacial erosion often leads to development of the “deranged” variety of these patterns. For 10 points each:

[10] Name these configurations of river channels that convey water and sediment from a given region. “Dendritic” forms of these patterns often occur in homogeneous substrates, and they exploit faults and fractures in “rectilinear” types.

ANSWER: **drainage network** [or **drainage systems**; or **river systems**]

[10] Channel topology in a drainage network may be organized in these systems, which describe the degree of branching. Finger tributaries are assigned a value of 1 in the Strahler system of this kind.

ANSWER: **stream order** [or **waterbody order**; prompt on **order**]

[10] Drainage networks terminate at these features at which the river empties into a wider body of water and deposits sediment. Alluvial fans may develop at these features, and a “bird’s foot” type of this feature occurs near New Orleans.

ANSWER: river **deltas**

<JN, Other Science (Earth)>