2019 Terrapin: Come on Angel, Come and Save Us
Packet 6
Edited by Weijia Cheng, Jordan Brownstein, Graham Reid, Caleb Kendrick, and Ophir Lifshitz, with assistance
from Andrew Wang
Questions by Graham Reid, Caleb Kendrick, Alex Echikson, Ani Perumalla, Weijia Cheng, Justin Hawkins, Jason
Shi, Vishwa Shanmugam, Jack Lewis, Jack Nolan, Jordan Brownstein, Sarang Yeola, and Naveed Chowdhury

Tossups

1. **Paul Brunton popularized the work of a scholar from this modern-day country who pioneered a method of deliberation called "self-enquiry." A scholar from this country, who founded a monastery in each cardinal direction, advocated monism and argued that "ultimate reality is without parts or attributes." A religious tradition from this country was introduced to America at the 1893 (*)** Parliament of the World's Religions by a scholar of one of this country's six "orthodox," or *āstika* ("AH-stih-kuh") schools of philosophy. The expression "that thou art," or *tat tvam asi*," ("tuht twam UH-see") is a philosophical statement from this country that was interpreted by a teacher of Advaita Vedānta ("ud-VYE-tuh vay-DAHN-tuh"), Ādi Śankara ("AH-dee SHUN-kuh-ruh"), who wrote commentaries on the Upanishads ("oo-puh-nih-shuds"). For 10 points, name this country, the birthplace of Hinduism.
ANSWER: **India** [or **Bhārat**] (The unnamed scholars are, in order, Ramana Maharshi, Ādi Śankara, and Swāmi Vivekānanda.)
<AP, Religion>

2. **The architect of a government building in this country allegedly threw some twigs and leaves in front of its sponsors to describe its "organic" theme and modeled some of its windows on a famous portrait of a "skating minister" from this country. As he died during its construction, Catalan architect Enric Miralles ("un-REEK mee-RALL-yuss") could not see his design for this country's Parliament building realized. An architect from this country designed the Willow Tearooms and the (*)** high-backed Argyle chair in the Art Nouveau style. In June 2018, the Charles Rennie Mackintosh building at an art school in this country was decimated again by fire. William Bruce reconstructed Holyrood Palace, the official residence of the British monarch in this country. For 10 points, name this country home to Edinburgh Castle.
ANSWER: **Scotland** [prompt on United Kingdom or UK; prompt on Great Britain]
<AP, Other Arts>

3. **Removing eight hydrogen atoms from a passivated surface of this element creates an artificial version of an eight-membered aromatic ring, and surfaces of this element are often passivated with its nitride or titanium dioxide in industrial applications. A process for producing polycrystalline solids of this element starts with a trichloro- compound of this element and reacts it with hydrogen gas. This element is the basis for CMOS ("C-moss") transistors produced via CVD. As a crystal, this element has an (*)** indirect bandgap, making it ineffective for LEDs ("L-E-D's"), though its amorphous form is used in photovoltaic cells. This element acts as an n-type semiconductor when doped with phosphorus and a p-type when doped with boron. For 10 points, name this element that is the basis for modern semiconductor technology.
ANSWER: **silicon** [or **Si**]
<GR, Chemistry>

4. **Louise Labé's first sonnet, "The Sting," opens by stating that "Never was [this man] more struck by so divine an aspect" as that seen by the speaker. An episode in this man's story is reimagined in Sonnet 189 of Petrarch, in which "ready, cruel" thoughts propel an object "laden with forgetfulness." In another poem, this man recalls being swallowed up by a "booming billow" after catching sight of a lofty mountain beyond the pillars of Hercules. This person is told "As you set (*)** out… / hope the voyage is a long one, / full of adventure,

full of discovery" in a poem titled for his homeland by Constantine Cavafy. In Canto 26 of *Inferno*, Dante encounters this man bound in a single flame with Diomedes. For 10 points, the vow "To strive, to seek, to find, and not to yield" ends a Lord Tennyson poem titled for what wiley protagonist of a Homeric epic?
ANSWER: **Ulysses** [or **Odysseus**]
<JB, European Literature>

5. *Description acceptable.* **In a short poem, the question of why this place's benches are "bright with rings" and its platforms "bedecked with gold" is posed. In that poem, that god travels to the eastern door of this place in disguise as Vegtam ("VEGG-tahm") to get a volva's interpretation of some dreams. Another god rides through valleys for nine days and nights to reach the gold-roofed bridge over the (*)** river Gjöll ("gyull") that leads to this location, where he is challenged by the giantess Modgud. The ruler of this place announces a requirement that every living thing weep for one of its residents to Hermod, who had travelled to this place on Sleipnir. The dog Garm guards this place. A handsome god goes to this place after being struck by a mistletoe spear. For 10 points, name this cold realm ruled by a namesake goddess, where Baldr goes after dying in Norse myth.
ANSWER: **Hel** [accept equivalents of the **Norse underworld**; accept **Niflheim** or **Niflhel**; prompt on the underworld or equivalents]
<JS, Mythology>

6. **The Glasgow ("GLAZZ-goh") Gallery of Modern Art occupies a mansion formerly owned by William Cunningham, one of several merchant "lords" of this good based in 18th-century Glasgow. Thomas Willis claimed that no sellers of this good were infected during the Great Plague of London, during which this good was thought to prevent disease. This good was criticized in a (*)** "counterblaste" by James I, which questioned why his countrymen would adopt the "barbarous and beastly manners of the wild, godless, and slavish Indians." A mild and sweet strain of this crop was crossbred by the husband of Pocahontas, John Rolfe, who began the cultivation of this crop in the Jamestown colony. For 10 points, name this cash crop that was the major export of colonial Maryland and Virginia.
ANSWER: **tobacco** [or *Nicotiana* tabacum; anti-prompt on particular products like cigarettes, cigars, snuff, etc.]
<AE, European History>

7. **The NCLX protein imports 3 sodium ions to this organelle by removing 1 calcium ion, and this organelle imports calcium ions with its namesake calcium uniporter ("YOO-ni-porter"). When released from this organelle, the Smac/DIABLO protein can bind to IAPs. One protein that is typically bound to cardiolipin ("cardio-lipin") in this organelle can bind to APAF-1 in the cytosol to form the apoptosome and activate (*)** caspase-9. "Uncoupling" proteins such as thermogenin generate heat by decreasing the permeability of a membrane in this organelle. The release of cytochrome c from this organelle can initiate apoptosis, and that protein normally helps to create a proton gradient across this organelle's inner membrane. For 10 points, name this organelle where the electron transport chain synthesizes ATP.
ANSWER: **mitochondria** [or **mitochondrion**]
<VS, Biology>

8. **This story's narrator remembers meeting an Englishman who spoke as well as Goethe ("GUR-tuh") wrote. Upon seeing a bird fly above him, this story's protagonist imagines it becoming an airplane and sending a "rain of bombs" under it before exclaiming "I must flee." This story's narrator recollects some advice about always turning left en route to the Ashgrove residence of a man who is killed because he shares his name with a French (*)** town, as revealed in the story's last paragraph. The "horse-faced" MI6 agent Richard Madden stalks this story's narrator, whose Chinese ancestor wrote a complex novel that also serves as an infinite labyrinth. For 10 points, name this story in which the sinologist Stephen Albert is regrettably killed by Yu Tsun, written by Jorgé Luis Borges ("HOR-hay loo-EES BOR-hess").
ANSWER: "The **Garden of Forking Paths**" [or "El **jardín de senderos que se bifurcan**"]

<AP, World/Other Literature>

9. **Joaquín Rodrigo based a 10-movement concerto for two guitars on a sad piece of this type ironically titled "Oh, my happy eyes." Orlando Gibbons based a piece of this type about a silver swan on Jacques Arcadelt's "Il bianco e dolce cigno" ("eel b'YAHN-ko ay DOLE-chay CHEEN-yo"). Vocalists overlap the word "ahi" ("AH-ee") at the end of a piece of this type full of chromatic mediants from the last of six books of them written after leaving Ferrara and inspired by the composer's adulterous wife titled (*)** "Moro, lasso." Giovanni Artusi criticized the composer of pieces of this type such as "Cruda Amarilli" for his monody-rich *seconda pratica* style. That composer divided his eighth book of these pieces into songs of war and songs of love. Many of these pieces by Carlo Gesualdo ("jezz-WALL-doh") and Claudio Monteverdi have elaborate word painting. For 10 points, name these secular sung poems contrasted with motets.
ANSWER: **madrigal**s
<CK, Classical Music>

10. **It's not the Kiowa ("KYE-oh-wuh") tribe, but Garrick Mallery used references to "the year the stars fell" to date historical records produced by this tribe using the 1833 Leonid meteor shower. 38 members of this tribe were hanged at Mankato ("man-KAY-toh") after a war in which hundreds of women, children, and elders from this tribe were interned at Fort Snelling. In that war, (*)** Little Crow led this tribe against the US government. Another chief from this tribe ambushed US soldiers in the Fetterman Fight before signing the 1868 Treaty of Fort Laramie; that chief was Red Cloud. In another battle, the Cheyenne and this tribe completely destroyed the 7th Cavalry of George Armstrong Custer. For 10 points, what tribe won the Battle of Little Bighorn, led by Sitting Bull?
ANSWER: **Sioux** ("soo") [accept **Lakota** or **Dakota** or **Nakota**; accept **Santee** or **Yankton**ai]
<AE, American History>

11. **Finding extremal areas of de Haas–van Alphen oscillations is one way to experimentally map a construct named for this scientist. This scientist is the first author and alphabetically earliest on a paper which found that chains of nonlinear oscillators were nearly exactly periodic rather than ergodic. With a Brit, this scientist names a theory which predicts that kinetic energy is proportional to electron density to the five-thirds power. The chemical potential required to add one (*)** electron to a metal and the difference in energy between the highest and lowest occupied states are this man's namesake "level" and "energy," respectively. Identical particles with half-integer spin follow a distribution named for Dirac and this physicist. For 10 points, name this Italian physicist whose namesake particles obey the Pauli exclusion principle and include quarks and leptons.
ANSWER: Enrico **Fermi**
<VS, Physics>

12. **This essay ridicules those who quote saints and sages noting that "those roses under my window make no reference to former roses or to better ones." After bemoaning "we are now a mob," this essay's author remarks, "I like the silent church before the service begins, better than any preaching." When a friend suggests that its author's "impulses may be from below, not from above," he replies "if I am the Devil's child, I will live then from the Devil." This essay compares (*)** society to a joint-stock company and argues that "whoso would be a man, must be a nonconformist," echoing its author's "Divinity School Address." Stating that "a foolish consistency is the hobgoblin of little minds," for 10 points, name this Ralph Waldo Emerson essay that advises "trust thyself."
ANSWER: "**Self-Reliance**"
<CK, American Literature>

13. **Esther Harding's *Woman's Mysteries* influenced this artist's early paintings of *The Moon Woman*. Richard Taylor analyzed this artist's works, including *Alchemy*, for fractal patterns, finding an increase in fractal**

dimension with time, indicating that this artist's works became more chaotic. Allan Kaprow laid out the theory behind his Happenings in an essay titled for this man's legacy. Hans Namuth ("NAY-mith") photographed this artist's (*) process at his Long Island studio. Lee Krasner introduced this artist to collector Peggy Guggenheim and critic Clement Greenberg, one of this artist's early champions. This artist's work often includes detritus like the nails and cigarette butts found in *Full Fathom Five*. For 10 points, name this artist of *Lavender Mist* famous for his action painting "drip" technique.
ANSWER: Jackson **Pollock**
<GR, Painting & Sculpture>

14. **Late in his life, the "Black Prince of Perthshire" converted to this religion of his birth, years after he had been taken from his mother by John Login and converted to Christianity. Another monarch who followed this religion hired the French artillery officer Claude-Auguste Court ("klohd oh-goost KOOR") and united twelve states called *misl*s. That monarch who followed this religion defeated the Afghan king Zaman Shah to capture (*)** Lahore, then declared himself a maharaja. At age 14, a leader of this religion named Hargobind was imprisoned at Gwalior Fort by Jahangir for being unable to pay a fine that was imposed on his father Arjan. For 10 points, the Dal Khalsa was the military of a Punjabi empire named after what religion, whose monarchs included Duleep Singh and Ranjit Singh?
ANSWER: **Sikh**ism [or **Sikhi**; accept **Sikh** Empire]
<AE, World History>

15. **A legislator from this state, Ibraheem Samirah, was attacked as anti-Semitic for making a 2014 Facebook post saying that Ariel Sharon ("ah-ree-EL sha-ROHN") "should burn a million times for every innocent soul" he killed. Another legislator from this state was called "Really, Really Boring" in a *New York Times* op-ed because of her emphasis on fixing Route 28. That state legislator was (*)** Danica Roem, who became this state's first transgender legislator in 2017. After the 2017 midterm elections, the Republicans retained control of this state's legislature following a literal name-drawing from a bowl. In January 2019, this state's governor was found to have taken a medical school yearbook picture with a man wearing blackface and another wearing KKK robes. For 10 points, name this state whose 2017 gubernatorial election was won by the embattled Democrat Ralph Northam.
ANSWER: **Virginia**
<JH, Other>

16. **LBV stars are slightly above the empirical Humphreys–Davidson limit for this quantity and undergo violent mass loss events due to their high value of this variable. An upper bound for this quantity can be derived by considering a star in hydrostatic equilibrium between gravitational and (*)** radiation pressure and is named for Eddington. This quantity often scales with mass to the 3.5 power, and the log of period can be used to calculate this quantity for a type of star studied by Henrietta Leavitt ("LEV-it"). This value for standard candles can be inferred from measurements, allowing one to determine distance based on apparent magnitude, and it appears on the y-axis of an HR diagram. For 10 points, name this quantity that measures how much light a star produces.
ANSWER: **luminosity** [accept **absolute magnitude**; prompt on magnitude or brightness or descriptive answers indicating how much light an object emits or produces]
<GR, Other Science: Astronomy>

17. **One of this author's characters feels a "more gentle universe, parallel to our own" while staring at a woman's bindi. An essay that mainly criticizes this author imagines the punningly-named character Toby Awknotuby. The lesbian "Niece-of-Shame" and the seemingly prophetic letter-writer Horst Ibelgaufts appear in one novel by this writer. Michel is hurt after finding his wife's birth control pills in a novel by this author, in which (*)** Keisha changes her name to Natalie. James Wood coined the term "hysterical realism" to criticize one of this author's novels, in which FATE and the Islamic fundamentalist group KEVIN plan to disrupt the

FutureMouse conference. That novel begins with Archie Jones's attempted suicide. For 10 points, name this contemporary British novelist of *NW* and *White Teeth*.
ANSWER: Zadie **Smith**
<VS, British Literature>

18. **A festival that this monarch held on Pentecost to celebrate the knighting of his two eldest sons was likened to Aeneas's wedding in Heinrich von Veldeke's retelling of the *Aeneid*. According to legend, this monarch can be found sitting at a stone table with an overgrown beard in a cave on the mountain of Kyffhäuser ("KIFF-hoy-zuh"). This monarch hired the Four Doctors of Bologna to define his royal rights at the Diet of (*)** Roncaglia ("ron-KALL-yuh"). This monarch's forces seized the reformer Arnold of Brescia ("BREH-shuh") and delivered him to the Roman Curia for execution. This monarch agreed to the Peace of Constance with the Lombard League after his defeat in the Battle of Legnano ("len-YAH-noh"). For 10 points, name this Holy Roman Emperor who drowned in the Saleph River during the Third Crusade, nicknamed after his red beard.
ANSWER: **Frederick Barbarossa** [or **Frederick I**; or **Friedrich Barbarossa** or **Friedrich I**; prompt on Barbarossa]
<AE, European History>

19. **This industry was used by Nicholas Kaldor in 1934 to illustrate his "cobweb model," in which the quantity supplied by producers in one period depends on prices in previous periods. Book VII of Alfred Marshall's *Principles of Economics* famously criticized a system of organization in this industry by reasoning that workers would not apply best effort if they receive only a (*)** fraction of their output. That system of organization in this industry is often compared to a fixed-rent contract between tenant and landlord. Norman Borlaug won the Nobel Peace Prize for his efforts in improving inputs and techniques used in this industry that led to the worldwide "Green Revolution." For 10 points, name this primary industry that involves the cultivation of crops.
ANSWER: **agriculture** [or **farm**ing; accept equivalents]
<WC, Social Science>

20. **This philosopher argued that, since the soul is immaterial, humans would not exist as unities if there were a plurality of substantial forms. He held that human goodness was only akin to God's goodness, arguing that predication is analogical. Philippa Foot popularized this thinker's principle that an action with unforeseen negative consequences may still be permissible, known as the doctrine of (*)** double effect. Albertus Magnus taught this thinker, who wrote a work that begins each response to an objection with the phrase "sed contra." That work, which refers to Averroes as "The Commentator" and Aristotle as "The Philosopher," presents five arguments for God's existence. For 10 points, name this scholastic philosopher who wrote *Summa Theologica*.
ANSWER: Saint Thomas **Aquinas**
<CK, Philosophy>

Bonuses

1. This character is appalled to see a "giggling, dirty-minded creature" crawling on all fours and "hissing like a naughty cat" in pursuit of his fiancée, who is squeaking like a mouse. For 10 points each:
[10] Name this character who appears as a demented old man in a wheelchair in the frame story of a 1979 play in which he begs the title character to "pardon your assassin!"
ANSWER: **Antonio Salieri** [accept either underlined name]
[10] Peter Shaffer's play Amadeus was inspired by this Russian Romantic author's dramatization of the rivalry between Salieri and Mozart. He wrote the play *Boris Godunov* and the verse novel *Eugene Onegin*.
ANSWER: Alexander **Pushkin**
[10] At the end of *Amadeus*, Salieri attempts, and fails, to commit suicide using one of these objects. In August Strindberg's *Miss Julie*, the valet Jean ("zhawn") convinces his lover to commit suicide with this type of object after failing to go through with their elopement.
ANSWER: shaving **razor**
<AP, World/Other Literature>

2. The Gauss–Markov theorem states that given several conditions, the "least-squares" form of this technique generates the best linear unbiased estimators. For 10 points each:
[10] Name this statistical technique that uses data to create a predicted model and line of best-fit. The linear form of this technique is commonly used in the social sciences.
ANSWER: **regression** analysis [accept linear **regression**]
[10] The conditions for the Gauss–Markov theorem are violated when the error variance of a regression is [emphasize] *not* constant across observations, a situation that is given this name.
ANSWER: **heteroskedastic**ity
[10] A possible method of addressing heteroskedasticity is to apply this function to the data. When this function has been applied to the data on both sides of an estimated equation, the resulting OLS estimators can be interpreted as point elasticities.
ANSWER: **log**arithm [or **log**arithmic; accept natural **log** or **ln**]
<AE, Other Science: Mathematics>

3. *Original language term required.* Al-Ikhlas, which is sometimes called the *surah* of this concept, asserts this concept with the declaration that "He, Allah, is One." For 10 points each:
[10] Name this concept in Islamic theology, which holds that God is singular and unique. This concept, which is sometimes translated as "monotheism," is violated by *shirk*, the act of associating others with God.
ANSWER: *tawhid* ("tau-HEED") [or *tawheed*; or *tawḥīd*]
[10] The *Book of Tawhid* was the main work of this fundamentalist Islamic theologian whose alliance with the House of Saud ("suh-OOD") led his ideas to become the state-sponsored interpretation of Islam in Saudi Arabia.
ANSWER: Muhammad ibn Abd al-**Wahhab** [or **Wahhabi**sm]
[10] A verse of the Quran addressed to Christians criticizes this Christian view of God as three persons in one Godhead by declaring, "Say not, 'three.' Desist, it is better for you; Allah is only one Allah."
ANSWER: **Trinity** [or **Trinitarian**ism]
<WC, Religion>

4. Milhaud ("mee-YO") was accused of literally setting text from a catalogue of these objects in a song cycle, and Blanche and Constance make a cross out of these objects in an interlude in Poulenc's ("poo-LANK's") opera *Dialogues of the Carmelites*. For 10 points each:
[10] Name these objects that Lakmé and her servant Mallika gather by a river while singing a lush duet in Act 1 of a French Romantic opera set in British India.
ANSWER: **flower**s [accept "**Flower** Duet" or "Duo des **fleur**s" or *Catalogue de **fleur**s*]

[10] The "Flower Duet" is from the opera *Lakmé* by this composer of the ballets *Sylvia* and *Coppélia*.
ANSWER: Léo **Delibes** ("duh-LEEB")
[10] In Olivier Messiaen's ("oh-leev-YAY mess-YAWN's") *Turangalîla-Symphonie,* two of these instruments introduce the slow, dissonant "flower" theme, converging toward each other. This instrument's skittish trills and staccato repeated notes open the "Liturgie de cristal" first movement of Messiaen's *Quartet for the End of Time*.
ANSWER: **clarinet**
<AE, Classical Music>

5. In one poem, this author recalls when he was held "green and dying" during a period in which his "wishes raced through the house high hay." For 10 points each:
[10] Name this author of "Fern Hill." In another poem, this author asks the addressee to "curse, bless, me now with your fierce tears."
ANSWER: Dylan **Thomas**
[10] Another Welsh hill features in Thomas's poem about his "thirtieth year to heaven," which is titled as a "poem in" this month. This month is also the setting of Yeats's "The Wild Swans at Coole ("cool")," which describes how "the water / Mirrors a still sky" under this month's "twilight."
ANSWER: **October**
[10] In the refrain to his villanelle "Do not go gentle into that good night," Thomas tells the addressee to do this action "against the dying of the light."
ANSWER: **rage**
<AP, British Literature>

6. In purple sulfur bacteria, a reaction of this type oxidizes hydrogen sulfide, and many other organisms perform this type of reaction on water. For 10 points each:
[10] Name this class of reactions in which the activation energy for chemical breakdown is supplied by light.
ANSWER: **photolysis** [or **photodissociation**; prompt on partial answers including <u>photo</u> reactions, <u>photo</u>-catalyzed reactions, <u>photo</u>-stimulated reactions, or <u>dissociation</u>]
[10] Photolysis is important in the formation and dissociation of ozone in the atmosphere. When an ozone molecule is photolyzed, the resulting atomic oxygen can react with water to form one of these radical species.
ANSWER: **hydroxyl** radical [prompt on <u>OH</u>]
[10] Hydroxyl radicals are referred to as atmospheric "detergents" because they react to break down many pollutants, including this hydrocarbon greenhouse gas that has an atmospheric lifetime of around 10 years.
ANSWER: **methane** [or **CH4**]
<GR, Chemistry>

7. The Canadian Bill of Rights, which was Canada's first federal law to protect human rights, was passed during the administration of this prime minister. For 10 points each:
[10] Name this prime minister of Canada who led the Progressive Conservative Party. This prime minister controversially cancelled the Avro Arrow program and accepted Bomarc missiles from the United States.
ANSWER: John **Diefenbaker** ("DEE-fin-BAY-ker") [or John George **Diefenbaker**]
[10] Diefenbaker was succeeded by this prime minister who had won a Nobel Peace Prize for his efforts in resolving the Suez Crisis. He instituted Canada's first universal medicare plan.
ANSWER: Lester **Pearson**
[10] Pearson was a leader of this Canadian political party that rivalled the Progressive Conservatives. Other leaders of this party have included Pierre Trudeau and his son, the current prime minister Justin Trudeau.
ANSWER: **Liberal** Party of Canada [or Parti **Libéral** du Canada]
<AE, European History>

8. A building in this city served as a naval training center, commercial pier, and state university building before becoming a major tourist attraction. For 10 points each:
[10] Name this city on Lake Michigan whose Near North side is home to Navy Pier. This city is also home to a Museum Campus that includes the Shedd Aquarium, the Adler Planetarium, and the Field Museum.
ANSWER: **Chicago**
[10] Another entertainment pier is located at the end of Colorado Avenue in this southern California city. This city is on the western end of the Expo light rail line.
ANSWER: **Santa Monica**
[10] This city built on a barrier island in the Gulf of Mexico is home to a "pleasure pier" that was rebuilt in 2012 on the site of a pier destroyed in Hurricane Carla. In 1900, this city was almost completely destroyed in a hurricane.
ANSWER: **Galveston**
<GR, Other>

9. In this novel, the protagonist tours Europe and attempts to live in a house with three women before deciding that what he really needs is solitude. For 10 points each:
[10] Name this novel in which Patrice kills the invalid Roland Zagreus and steals all his money.
ANSWER: A *Happy Death* [or *La mort heureuse*]
[10] Patrice shares this surname with the protagonist of a later novel by the same author, in which that character declares "Mother died today." This surname titles a 2013 Kamel Daoud novel about Harun, the brother of a man murdered by that character with this name.
ANSWER: **Meursault** ("murr-SO") (The novel is *The Meursault Investigation*.)
[10] Patrice Meursault of *A Happy Death* and Meursault of *The Stranger* are both French-Algerian clerks created by this French absurdist, whose nonfiction includes "The Myth of Sisyphus."
ANSWER: Albert **Camus**
<JH, European Literature>

10. One of this movement's painters, Luigi Russolo, explored the new directions that orchestral music could take in a world of urban sounds in his manifesto *The Art of Noise*. For 10 points each:
[10] Name this early 20th-century Italian art movement whose manifesto was written by Filippo Tommaso Marinetti and champions its focus on speed, movement, and technology.
ANSWER: **Futurism** [or word forms; or *Futurismo*]
[10] Futurist paintings were often titled for this quality related to movement, such as Giacomo's painting of a dog on a leash and Umberto Boccioni's painting of a cyclist.
ANSWER: **dynamism** [or *dinamismo*]
[10] Russolo depicted red shapes reminiscent of sound waves in his paintings for the dynamism of one of these objects. Fishermen use hooks to pull one of these objects belonging to the narrator out of a muddy ditch in the frame-story of Marinetti's *Futurist Manifesto*.
ANSWER: **car** [or equivalents like **automobile**; accept *Dynamism of a Car* or *Dinamismo di un'Automobile*]
<JH, Painting & Sculpture>

11. In the case *Wisconsin v. Yoder*, the Supreme Court held that the freedom of religion guaranteed by this amendment outweighed the State's interest in compelling school attendance past eighth grade. For 10 points each:
[10] Name this constitutional amendment that was cited in *Engel v. Vitale*, which found that instituting a voluntary, non-denominational school prayer violated the Establishment Clause.
ANSWER: **First** Amendment
[10] This case found that providing state funding to religious schools violated the Establishment Clause by fostering "excessive government entanglement with religion," giving rise to this case's namesake "test."
ANSWER: *Lemon v. Kurtzman* [accept either underlined part; accept **Lemon** test]

[10] This case found that students who had worn black armbands to protest the Vietnam War did not lose their First Amendment rights to freedom of speech when they entered school property.
ANSWER: _**Tinker** v. **Des Moines** Independent School District_ [accept either underlined part; accept **Tinker** test]
<WC, American History>

12. This drug is commonly packaged with the antiretroviral Lamivudine in Combivir. For 10 points each:
[10] Name this drug. It is structurally similar to thymidine triphosphate, so reverse transcriptase adds it to DNA strands, hindering DNA replication.
ANSWER: **AZT** [or **azidothymidine** or **zidovudine**]
[10] AZT is used to treat side effects of AIDS, a disease caused by this virus. This retrovirus is also classified as a lentivirus due to its long incubation time.
ANSWER: **HIV** [or **human immunodeficiency** virus]
[10] Another anti-HIV drug is enfuvirtide ("en-FEW-ver-tide"), a fusion inhibitor that attempts to stop HIV from entering cells. Enfuvirtide binds to an HIV envelope glycoprotein that is exposed when another glycoprotein binds to the CD4 receptor. Name either of those two glycoproteins.
ANSWER: **gp120** OR **gp41**
<VS, Biology>

13. According to legend, this being was hidden away in the attic of the Prague Synagogue. For 10 points each:
[10] Name this mythical being said to have been brought to life to protect Prague's Jews in the 16th century. After this creature ran amok, its maker removed some paper with God's name from its body and rendered it lifeless.
ANSWER: **golem** [or **Golem** of Prague]
[10] The golem was said to have been created by this rabbi, who wrote a commentary on the Torah called the _Gur Aryeh_ ("GOOR arr-YEH"), which later influenced the Chabad ("huh-BOD") movement.
ANSWER: **Judah Loew** ben Bezalel [or **Yehuda Loew**; or **Yehuda Lev**; or **Yehuda Leib**; or **Maharal** of Prague; or the **Maharal**]
[10] To create the golem, Judah Loew wrote a holy name of God with this many letters and placed the name into the golem's mouth. That name of God, as revealed to Moses, has this many letters, all of which are consonants.
ANSWER: **four** [prompt on YHWH or Yahweh or Tetragrammaton by asking "which has how many letters?"]
<WC, Mythology>

14. The protagonist of a novel is punched in the stomach and conned out of five bucks by a character of this profession named Maurice. For 10 points each:
[10] Name this profession. Iceberg Slim's autobiography, subtitled "The Story of My Life," details his experiences working in this profession.
ANSWER: **pimp** [or **procurer**; or **pander**] (The character is Holden Caulfield from _The Catcher in the Rye_ by J. D. Salinger.)
[10] The pimp Mr. Edwards beats his mistress Cathy Ames to a pulp after she reveals her hatred for him in _East of Eden_, a novel by this American author of _The Grapes of Wrath_ and _Of Mice and Men_.
ANSWER: John **Steinbeck**
[10] In this play, Rocky Pioggi vehemently denies that he's a pimp, and asserts that pimping is just a "side line" apart from his night bartending duties in Harry Hope's saloon.
ANSWER: _The **Iceman Cometh**_ (by Eugene O'Neill)
<AP, American Literature>

15. A female leader of this group known as Comandante Ramona led this group's capture of San Cristóbal de las Casas in 1994. For 10 points each:

[10] Name this leftist Mexican guerilla group that controls a large swath of territory in Chiapas ("chee-AHP-us"). This group is named after a general of the Mexican Revolution who issued the agrarian Plan of Ayala ("ah-YAH-la").
ANSWER: **Zapatista**s [or **Zapatista** National Liberation Army or Ejército **Zapatista** de Liberación Nacional or **EZLN**]
[10] The Zapatistas launched their uprising on the day that this trade agreement came into effect. This agreement eliminated most trade barriers between Mexico, the US, and Canada.
ANSWER: **NAFTA** [or **North American Free Trade Agreement**]
[10] Though this Mexican president agreed to land reform and indigenous autonomy by signing the 1996 San Andrés Accords with the Zapatistas, his government never fully implemented the Accords.
ANSWER: Ernesto **Zedillo** [or Ernesto **Zedillo** Ponce de León]
<AE, World History>

16. In this experiment, "superordinate goals" reduced conflict between two groups known as the "Rattlers" and the "Eagles." For 10 points each:
[10] Name this seminal experiment in social conflict theory, conducted at a namesake Oklahoma state park by Muzafer Sherif.
ANSWER: **Robbers Cave** experiment
[10] The contact hypothesis contends that intergroup interaction reduces this form of disparate treatment based on group-membership, such as race, gender, and religion.
ANSWER: **discrimination** [accept word forms; accept **prejudice**]
[10] Henri Tajfel ("TYE-fell") invented this methodological paradigm to study how seemingly arbitrary distinctions can lead to the formation of "in" and "out" groups.
ANSWER: **minimal group** paradigm
<CK, Social Science>

17. Keith Emerson performed with a custom "monster" version of an instrument named for this person that was also used by George Harrison on his two-track album *Electronic Sound*. For 10 points each:
[10] Name this American electronics engineer who designed a namesake family of instruments that Wendy Carlos popularized through her album *Switched-On Bach*.
ANSWER: Robert "Bob" **Moog** ("mohg") [accept specific types of the **Moog** synthesizer like the **Minimoog**, **Polymoog**, etc.]
[10] For the soundtrack of this Stanley Kubrick film, Carlos used a vocoder ("VO-coder") to render the choral movement of Beethoven's Ninth Symphony, against which Alex is conditioned during the Ludovico technique.
ANSWER: *A **Clockwork Orange***
[10] Moog financed his education at Cornell by manufacturing this instrument, which he later sold under the "Etherwave" brand. Clara Rockmore is a virtuoso of this instrument, which has two perpendicular antennae.
ANSWER: **theremin** [or **Theremini**; or **etherphone**; or **thereminophone**; or **termenvox**]
<AP, Other Arts>

18. A sine term in the equation of motion for this system makes arbitrary solutions complicated. For 10 points each:
[10] Name this nonlinear physical system whose general solution can be written in terms of elliptic integrals of the first kind.
ANSWER: simple **pendulum**
[10] As long as its angular displacement remains small, a pendulum will behave as one of these systems with a quadratic potential. They are exemplified by a mass on a spring.
ANSWER: simple **harmonic oscillator** [or S**HO**; prompt on partial answer]

[10] Adding a periodic drive or coupling to a second pendulum can result in a chaotic system, characterized by a positive value for one of these quantities. These values characterize how quickly initially close trajectories diverge in phase space.
ANSWER: **Lyapunov exponent** [or **Lyapunov** characteristic **exponent**]
<GR, Physics>

19. A "massive" version of this thesis is defended in the book *The Architecture of the Mind* by Peter Carruthers ("ker-OTHERS"). For 10 points each:
[10] Identify this thesis that names a 1983 book by Jerry Fodor. It contends that the mind is composed of systems that are, among other things, domain-specific and informationally encapsulated.
ANSWER: **modularity** of mind [accept word forms like **modular**]
[10] Fodor's work on modularity was inspired by this argument against empiricist accounts of language acquisition which holds that children do not receive enough evidence to infer core aspects of language.
ANSWER: **poverty of the stimulus** [or **POS**]
[10] This MIT linguist formulated the poverty of the stimulus argument. He formulated transformational generative grammar in his 1957 book *Syntactic Structures*.
ANSWER: Noam **Chomsky**
<CK, Philosophy>

20. The "three pedagogues" advised an unpopular ruler during this period who ascended to the throne with the support of Otho, the governor of Lusitania. For 10 points each:
[10] Name this period of upheaval after the death of Nero during which Galba and Otho briefly reigned.
ANSWER: Year of the **Four Emperors** [or **AD 69** or **69 CE**]
[10] Prior to the Year of the Four Emperors, Galba lent his support to a revolt by this governor of Lugdunensis in Gaul, who commited suicide after being defeated by the governor of Germania Superior, Lucius Verginius Rufus.
ANSWER: Gaius Julius **Vindex**
[10] This founder of the Flavian dynasty defeated Vitellius to come to power and ended the year of the Four Emperors. This emperor built the Colosseum on top of the ruins of Nero's Domus Aurea.
ANSWER: **Vespasian** [or Titus Flavius **Vespasian**us]
<CK, European History>