

1. This body's mountains include the Doom Mons and the Mithrim Montes. Surface features on this body include a large, bright ring called Guabonito and a dark feature that was once thought to be a cryovolcano called the Ganesa Macula. This body contains lakes of liquid methane such as Kraken Mare. The evaporation of nitrogen ice due to radiation given off by its planet is likely responsible for this body's atmosphere, which was studied using the RADAR-SAR instrument by the Cassini-Huygens probe and contains ten percent Argon. One area of this body with high albedo is known as Xanadu. Second in size after Ganymede, for 10 points, name this moon which is Saturn's largest.
ANSWER: Titan
2. One set of relations named for this man equates the time derivative of pressure with the change in heat capacity at constant pressure, divided by the product of volume, temperature and a delta alpha term. This scientist modeled the heat exchange between two bodies at differing temperatures with his namesake urn model. He described the spatial variance of temperature in a stationary gravitational field at thermal equilibrium in a theorem co-named with Tolman. A more famous theorem by this man states that the time derivative of the expectation value of an operator equals the expectation value of its time derivative plus the reciprocal of i times h-bar times the commutator of the expectation value of that operator with the Hamiltonian. This man also coined the term "spinor". For 10 points, name this Austrian physicist whose namesake equation models Newton's second law at a quantum level.
ANSWER: Paul Ehrenfest
3. Martin Schoock accused this philosopher of atheism in The Admirable Method. Schoock claimed that accusation was instigated by Gisbertus Voetius, who attacked Henricus Regius and this philosopher for denying substantial forms and claiming that man is accidental. Antoine Arnauld argued that this man's philosophy had a basis in St. Augustine, but objected that he confused idea and judgment in his "Fourth Objections" to one of this man's works. This philosopher supposed that the cause of his idea of God must have the perfections of God in his trademark argument. In Passions of the Soul and Treatise on Man, he claimed that sensation and action were caused by animal spirits in the nerves, and that the rational soul interfaced with the pineal gland. For 10 points, name this French philosopher who imagined that he was deceived by an evil demon in Meditations on First Philosophy.
ANSWER: René Descartes [or Renatus Cartesius]
4. A primary loser in the election for this office claimed that his goal was to help another candidate stop giving "mush-mouth answers." A Tea Party challenger to the incumbent in this election was forced to issue the quote "it was not a cockfighting rally" after being observed at a rally for the legalization of cockfighting. The incumbent in this office was enmeshed in a multidirectional scandal in which he was illegally taped discussing the illegal use of government resources to investigate the mental health of Ashley Judd. Matt Bevin won 35 percent of the vote in the Republican primary for this office, whose winner, the patron of a strange autotuned campaign ad, is seeking a sixth term against Democratic challenger Allison Lundergan Grimes. For 10 points, name this office currently held by Senate Minority Leader Mitch McConnell.
ANSWER: United States Senator from Kentucky
5. Radio antennas dot a Cubist landscape of pink and blue hills in this artist's Mulholland Drive: The Road to the Studio. A pencil drawing of a man and the number "145" appear in his riff on Chinese scroll paintings, A Visit With Christopher and Don. Along with Charles Falco, this man proposed a thesis that states that the advent of tools like the camera lucida allowed the move to realism seen in Renaissance Art. In the 80s, this artist took Polaroids from slightly different angles to compile "joiners" like Still Life Blue Guitar. A white cat sits on the lap of fashion designer Ossie Clark in a dual portrait by this artist, who now makes some works on an iPad. Two palm trees decorate the background of his most famous painting, whose foreground is dominated by a yellow diving board. For 10 points, name this English artist of $A$ Bigger Splash.
ANSWER: David Hockney
6. This effect caused participants to more negatively react to a foreigner who criticized their home country in a study by MacDorman and Ishiguro. Christian Keysers used the contrast between leaf spot and leprosy to argue for the threat-avoidance underpinnings of this effect. Steckenfinger and Ghazanfar used "coo", "scream" and "neutral" faces to replicate this effect in macaque monkeys. The original paper on this topic contrasted the difference between shinwakan and bukimi and plotted the affinity of a prosthetic hand and a Bunraku puppet; that paper was written by Masahiro Mori and borrowed from a Freud essay on Hoffmann. This effect is blamed for the poor reception of the films The Polar Express and Final Fantasy: The Spirits Within. For 10 points, give this term for the eeriness felt in viewing a human-like robot.
ANSWER: the Uncanny Valley
7. The US Bureau of Education was greatly expanded after President Grant appointed a man with this surname to head it in 1870. An industrialist with this surname hosted the Pugwash Conferences at his Nova Scotia lodge and founded Republic Steel in 1930. The first schoolmaster of Harvard College shares this surname with a woman who was bankrupted by the Italian dancer Antonio Buchignani after the death of her previous husband, an ambassador to Spain from 1836-1840. John Davenport and a man with this surname co-founded the colony of New Haven. A woman with this last name was the daughter of a DC innkeeper and was snubbed by men like John C. Calhoun after her husband became Secretary of War. For 10 points, give this common married name of Peggy, subject of an affair in Andrew Jackson's cabinet. ANSWER: Eaton
8. This man credits a failed swim across the Mississippi while he was playing for the Nashville Sounds in 2007 for turning around his career. Phil Niekro helped this man improve his pitch by jerking his hips towards home plate; he went on to be the first person on his team to win a certain award since Dwight Gooden did it in 1985. This player got screwed out of a contract when a scout noticed a deformity when he appeared on the cover of Baseball America with other members of the 1996 Olympics team. Before the 2013 season, this man was traded along with Mike Nickeas and Josh Thole to his current team. This man once made an emergency stop at Pink Nails in Queens for a manicure before a Mets home game. For 10 points, name this Toronto knuckleballer who won the 2012 NL Cy Young.
ANSWER: R. A. Dickey [or Robert Allen Dickey]
094-14-67-09108
9. This story opens with Miss Parker being alerted by a ringing bell. The protagonist of this story gets in trouble when his boss asks, "do you take me for a fool?" and he responds, "I don't think, sir ... that that's a fair question to put to me." After a hard day at work, the protagonist pawns his watch to Terry Kelly, earning enough money to buy drinks for pals like Higgins and O'Halloran. At the end of this story, Tom says a Hail Mary for his father, the protagonist, who arrives home drunk and starts beating Tom. Its protagonist loses two arm wrestling contests to an acrobat named Weathers and works at the firm of Crosbie \& Alleyne. For 10 points, name this short story about Farrington, which succeeds "A Little Cloud" in James Joyce's Dubliners.
ANSWER: "Counterparts"
094-14-67-09109
10. In the second stanza of one of this man's poems, the speaker asks, "Has not CONSCRIPTION still the power to wield / Her annual faulchion o'er the human field?" That poem begins by asking, "Black fool, why winter here?" This founder of the American Mercury gushed, "Let our occident stream bear the young hero's name" in "On the Discoveries of Captain Lewis". He described how "tentless troops are marbled with frost" during a Napoleonic campaign. This author of The Vision of Columbus wrote a poem while running for a seat in the French National Assembly that attacks those who "strive to stamp with disrepute / the luscious food, because it feeds the brute" and notes how the Pennsylvanians insult it by calling it mush. For 10 points, name this early American author of "Advice to a Raven in Russia" and "The Hasty-Pudding".
ANSWER: Joel Barlow
11. One member of this class of viruses can present with Nagayama spots on the soft palate. That member of this class of viruses typically presents with three days of fever followed by a rash. Another member of this class of viruses presents with lymphedema and purple lesions on the lower extremeties. That member can be cured with either radiation therapy or vinblastine. The causative agents of roseola and Kaposi's sarcoma belong to this class. Members of this class reveal multinucleated giant cells when undergoing a Tzanck smear. Acyclovir is used to treat these viruses, which include Cytomegalovirus, Epstein-Barr virus and the most common cause of genital ulcers. For 10 points, name this class of viruses that cause oral and genital sores.
ANSWER: herpesviruses [or herpesviridae; or herpes simplex viruses; or HSV; or human herpes viruses; or HHV; if Eric Mukherjee says "roseola" on the first clue, prompt him]
12. This man's mother was a war captive from the town of Corniculum who became a slave of Tanaquil, and was mysteriously impregnated by a disembodied penis which arose from the hearth of the Vestal Virgins. This man's wife was the ancestor of the gens Gegania. This man was killed at the intrigue of his daughter, who rode her chariot over his body after he was killed on the steps to the Senate by his successor. He introduced the comitia centuriata and extended the vote to plebeians in his namesake constitution. This slave-born king was the first ruler of Rome not chosen by the populace. For 10 points, name this sixth mythical king of Rome, whose murder by Tarquinius Superbus began popular discontent with the monarchy.
ANSWER: Servius Tullius
13. Joseph Sisco declared this government "the god-damnest government I've ever had to deal with." Members of this government had been in the secret EENA Party. Opponents of this government organized Radio Polytechnic after taking over a university radio station. Demonstrations by the EDA Party were one reason for the rise of this government, and it exiled a king to Rome before abolishing the monarchy. The Velos mutiny occurred under this government that came to be after the failure to form a government after the ASPIDA scandal. Dimitrios Ionaddes overthrew this government's first leader and it fell after the Turkish invasion of Cyprus. For ten points, name this regime that overthrew Constantine II, ruled Greece from 1967 to 1974 and was named for the military rank of some of its members.
ANSWER: Regime of the Colonels [or the Greek Junta; accept Greek Military Junta; accept The Seven Years; prompt on the Junta]

250-14-67-09113
14. A king of this dynasty exiled members of the Lipartid family for opposing this dynasty. This dynasty continually warred with and then married members of the Shaddadid Dynasty. Rulers of this dynasty were referred to as Mepe. Catholicos Mikel Vl opposed one ruler of this dynasty and the epic The Knight In the Panther's Skin was written during that ruler's reign. Along with her relative Alexius Comnenos, that ruler established the Empire of Trebizond. Another ruler of this dynasty built the Gelati Monastery inside a cathedral named after this dynasty and was known as the Builder. That king of this dynasty defeated the Seljuq Turks at the Battle of Didgori after which he re-captured Tbilisi. For ten points, name this dynasty that included David IV and Queen Tamar and ruled Georgia for about 1000 years.
ANSWER: Bagrationi Dynasty [or Bagratid Dynasty; accept Bagratoni; accept Georgian Bagratid]
15. Moldover et. al measured this value by determining the speed of sound in Argon. It's not b, but the temperature at which the second virial coefficient is zero has this value in its denominator. For an ideal gas, this quantity is equal to the difference in heat capacity at constant pressure minus the heat capacity at constant volume. The negative enthalpy change is divided by this quantity on the right side of the Van't Hoff equation. The exponential in the Arrhenius equation equals negative activation energy divided by the product of temperature and this. This quantity is multiplied by the molarity, temperature and van't Hoff factor to obtain osmotic pressure. For 10 points, name this quantity given by the product of Avogadro's number and Boltzmann's constant, equal to 8.314 Joules per Kelvin mole.
ANSWER: ideal gas constant [or $\underline{\mathbf{R}}$; accept "8.314" before mentioned]
16. One of this composer's songs has the refrain "lullaby, lullaby" sung by Death in lento funesto sections that alternate with agitato sections in which a mother defends her dying baby. That song belongs to a cycle of poems by Arseny Golenishchev-Kutuzov. Dmitri Shostakovich orchestrated that cycle for Galina Vishnevskaya and responded to it in his Symphony No. 14. Another song cycle by this composer includes "With Nanny" and "In the Corner" and inspired Debussy's Children's Corner Suite. This composer of The Nursery and Songs and Dances of Death made a piano arrangement of the Gopak he wrote for an unfinished opera based on a Gogol story, The Fair at Sorochyntsi. A recurring theme from another piece by this composer alternates between $5 / 4$ and 6/4 time and is called "Promenade." For 10 points, name this composer of Pictures at an Exhibition.
ANSWER: Modest Petrovich Mussorgsky
17. This character's telegrams are said to resemble translated French because they use phrases like "to you" and "I ran away." This woman once appeared at her "coming-out ball" in all black and later moves to a neighborhood inhabited by "people who write." This character is seen wearing a red cloak and running through the snow with a dog while on vacation at Skuytercliff. Another character begins anonymously sending this woman yellow roses in addition to his usual order of lilies-of-the-valley. After the curtains are drawn on this person's window, a man walks back to his Paris hotel without seeing her again. Despite the fact that she scandalously escaped her marriage with the help of a secretary, her obese grandmother Mrs. Mingott supports her entry into New York society. For 10 points, name this wife of a Count whom Newland Archer falls in love with in Edith Wharton's Age of Innocence.
ANSWER: Countess Ellen Olenska [or Ellen Olenska; or Countess Olenski]
18. This king granted one of the first patents to stained glass-maker John of Utynam. The Coppini mission attempted to recruit this king for a Turkish crusade, and his aversion to nudity is recorded in Blacman's account of his "Meekness and Good Life." He organized an event in which knights held hands with the killers of their fathers, Love Day. This patron of jurist John Fortescue faced a rebellion led by Bluebeard the Hermit and Jack Cade. He was found singing under a tree at the Second Battle of St. Albans, but was soon recaptured following the Battle of Towton. This king was murdered in the Tower after his cause was defeated at the battles of Barnet and Tewkesbury. For 10 points, name this insane husband of Margaret of Anjou, a Lancastrian who lost his throne to Edward IV in the War of the Roses.
ANSWER: Henry VI [prompt on Henry]
252-14-67-09118
19. One building desgined in this city is the subject of a letter to Russell Sturgis in which the author claims that he is "committed to an art of organisms, not compositions." One building complex located on the outskirts of this city contains a building called the Heat Hut. Another building in this city has windows that resemble arrows. Those are the "Tree of Life" windows. Those buildings are Graycliff and the Martin House Complex. Another building in this city used terra-cotta bricks on its façade and is designed in a similar style to the Wainwright Building. That building in this city is an early skyscraper designed by Dankmar Adler and Louis Sullivan. For ten points, name this city, the home of Kleinheins Music Hall and the Guaranty Building, which is located in New York state.
ANSWER: Buffalo, New York
20. A man who is tied to a tree in this play is told of the failed heroism of his son Juan, by a woman who delivers a monologue that notes it is "all dark--the very moon lost from heaven." This play was, until the nineteenth century, performed under the title The Best Garroting Ever Done. Rebolledo's scheme to profit from a gambling operation is permitted only because he helps facilitate a rape in this play, of a woman who later takes pity on Lope de Figueroa's wounded leg. After this play's central female character Isabel declares that she will not accept the marriage proposal of the man who violated her, the assailant, Captain Ataide, is killed in prison. Philip II then arrives and awards Pedro Crespo the title office in perpetuity. For 10 points, name this play by Pedro Calderon de la Barca.
ANSWER: The Mayor of Zalamea
019-14-67-09120
21. A god who took this form was offered two sacrifices who floated on a calabash, but was unable to accept them, and had to be propitiated in order to build embankments. A god who took this form crushed the bones out of a creature for failing to retrieve a monkey's liver. A god who took this form was the father of Otohime and through her the grandfather of emperor Jimmu. That god who took this form used three jewels to control the tides. A god who took this form was to receive Kushi-inada-him as a sacrifice, but she was turned into a comb and this god was defeated by Susanowo. For 10 points, name this form of Japanese deities and monsters such as Mizuchi, Ryjin, and Yamata no Orochi.
ANSWER: dragons [or serpents; prompt on snakes]


1. Identify the following about Renaissance treatises on art, for 10 points each.
[10] This sculptor praised the work of Giotto and Lorenzetti and called himself the most perfect sculptor in his Commentaries. He created the sculptures of Saint John the Baptist and St. Matthew for the niches of Orsanmichele.
ANSWER: Lorenzo Ghiberti
[10] Cennino Cennini's Libo dell'arte provides an early guide on obtaining and making these objects.
They're not knives, but modern varieties of these objects include the filbert and the dagger.
ANSWER: paintbrushes
[10] This author of Lives of the Most Excellent Painters, Sculptors and Architects likely read Cennini's Libo dell'arte.
ANSWER: Giorgio Vasari
2. Name some things about governors from early America. For 10 points each:
[10] The longest serving governor in US history, this man also served as the Vice President under both Madison and Jefferson.
ANSWER: George Clinton
[10] William Franklin was the last colonial governor of this state and the third real governor of this state was William Paterson who names a large city in this state.
ANSWER: New Jersey
[10] This man, an early South Carolina governor, led the defense of Sullivan's Island and had a fort named in his honor near the site of that battle.
ANSWER: William Moultrie
3. Nagarjuna used the idea of dependent origination to demonstrate the non-existence of svabhava, or intrinsic natures, thus supporting this concept. For 10 points each:
[10] Name this concept, roughly translating to "emptiness," that the Heart Sutra applies to the five skandhas. It is central to the "middle way" of the Madhyamaka school, and Keiji Nishitani attempted to bridge it with Western nihilism.

## ANSWER: sunyata

[10] Nagarjuna and other Madhyamaka philosophers belong to this religion, which takes annatta, or non-self, as a central concept.
ANSWER: Buddhism [accept Mahayana Buddhism]
[10] Modern commentators have noted similarities between Buddhist views on the self and this philosopher's bundle theory, introduced in a work which advocated a "science of man" and claimed that reason is slave to the passions.
ANSWER: David Hume
4. This structure accounts for the majority of the eye's refractive power, and its components include the protective Bowman's layer and Descemet's membrane. For 10 points each:
[10] Name this dome-shaped surface covering the front of the eye. Fluorescein can be used to detect an abrasion named for this surface.
ANSWER: cornea
[10] This other component of the eye lies just behind the iris and serves to modify the size and shape of the lens.
ANSWER: ciliary body [accept ciliary muscle]
[10] Descemet's membrane is a basement membrane, meaning that it is composed of this type of collagen.
Genes encoding for this type of collagen are what is mutated in Alport syndrome.
ANSWER: type IV collagen
245-14-67-09204
5. This book's protagonist forms a band called Kafkatrakterne with his brother, with whom he later travels to their father's apartment after their father drinks himself to death. For 10 points each:
[10] Name this sensational and much-lauded autobiographical work in six volumes by Karl Ove
Knausgaard, published from 2009 to 2011.
ANSWER: My Struggle [or Min Kamp]
[10] Knausgaard is from this European country. Immigrants to America from this country are the subject of Giants of the Earth.
ANSWER: Kingdom of Norway
[10] My Struggle is titled after a work by this German politician, who is the subject of a 400-page essay in its final book. Jack Gladney studies this man in White Noise.
ANSWER: Adolf Hitler
6. These people include Nikita the Tanner, who opposed the dragon Zmey Gorynych, and Dobrynya Nikitich, who served Prince Vladimir. For 10 points each:
[10] Name these knights who are the subject of epics and folk tales from medieval Russia.
ANSWER: bogatyrs
[10] The most famous bogatyr is this man, who is given superpowers by Svyatogor and kills Nightingale the Robber.
ANSWER: Ilya Muromets
[10] The bogatyr Anika the Warrior is killed by the demon "Wonder" after setting out to destroy this building for some reason. This real building contains the Stone of Anointing and the Aedicule.
ANSWER: Church of the Holy Sepulchre
7. This man had to sneak past Venetians who thought he was a spy to draw sketches in the Spalatro for his Ruins of the Palace of the Emperor Diocletian. For 10 points each:
[10] Identify this Scottish architect and furniture designer who, along with his brother James, popularized a namesake architectural style in 18th century Britain. He applied the Roman arch to domestic homes in his south façade for Kedleston Hall.
ANSWER: Robert Adam
[10] Adam studied under Giovanni Piranesi, whose many etchings include one of this emperor's namesake arch in Benevento. This emperor commissioned a spectacular monument celebrating his victories in the Dacian Wars.
ANSWER: Trajan [or Caesar Nerva Traianus Divi Nervae filius Augustus]
[10] Adam collaborated on Syon House with this landscape architect. This man emphasized natural-seeming landscapes unlike the Frenchman Andre Le Notre, eschewing symmetry in works like the park at Petworth House.
ANSWER: Lancelot "Capability" Brown
8. This figure begins most of his appearances by whispering "Hi" with his knuckles interlocked, and his counterpart employed by the First Lady is named Catendra. For 10 points each:
[10] Identify this exuberant bald man who is tasked with helping the President express his frustrations.
ANSWER: Obama's anger translator [or Luther]
[10] Obama's anger translator was a recurring character on this Comedy Central sketch show. Other notable sketches include "Substitute Teacher" and "East/West College Bowl," in which football players have ever-more ridiculous names like "Davoin Shower-Handel" and "Donkey Teeth."
ANSWER: Key \& Peele
[10] Jordan Peele and Keegan-Michael Key plan to collaborate with this director of Superbad, Bridesmaids , and Knocked Up on an upcoming comedy.
ANSWER: Judd Apatow
9. Their kink and anti-kink varieties are solutions to the Sine-Gordon equation. For 10 points each:
[10] Name these wave packets whose existence was first formulated to explain the Fermi-Pasti-Ulam experiment.
ANSWER: solitons [or solitary waves]
[10] Solitons were originally discovered as the hyperbolic-secant solutions to this equation that can also be used to describe the behaviour of shallow water.
ANSWER: Korteweg-De Vries equation [or KDV equation]
[10] Soliton trains can be generated by lasers in these materials. This state of matter is generated by being cooled to near absolute zero and were first generated by laser cooling of Rubidium- 87 .
ANSWER: Bose-Einstein condensate [or BEC]
10. A 2014 study shows that the " d " and " g " designated planets orbiting this star are merely artifacts of stellar activity and do not actually exist. For 10 points each:
[10] Name this star located in the constellation Libra that has attracted interest due to containing multiple low-mass planets found just inside its habitable zone.
ANSWER: Gliese 581 [do not accept any answers that include a letter after 581 as that refers to a planet] [10] Gliese 581 is this type of star. These stars make up the vast majority of the universe, can be K or M class, and include Proxima Centauri and Barnard's Star among its members.
ANSWER: red dwarf
[10] Because no metal-free red dwarves have ever been found, one theory is that red dwarves are formed from this designation of stars. These stars have extremely low metallicity, formed within 10 million years of the Big Bang and are still hypothetical as no definitive examples have been discovered.
ANSWER: Population III stars
11. This volcano arose before the eyes of corn farmer Dionisio Pulido on February 20, 1943. For 10 points each:
[10] Name this volcano which destroyed San Juan Parangaricutiro Church in Michoacán as it grew to 1500 feet.
ANSWER: Paricutin
[10] Paricutin is geologically part of this belt around the edges of the Pacific Ocean, which contains three-quarters of the world's volcanoes.
ANSWER: the Ring of Fire
[10] Paricutin is this type of volcano, which will only have one major eruption.
ANSWER: monogenetic
12. The title character is cured of his stomach pains when a glass of water is thrown in his face by an illiterate woman who wants him to read a letter. For 10 points each:
[10] Name this short story in which the intellectual Nahum Fischelson marries the old maid Black Dobbe. ANSWER: "The Spinoza of Market Street"
[10] "The Spinoza of Market Street" is a story by this author of "Gimpel the Fool" and "The Magician of Lublin."
ANSWER: Isaac Bashevis Singer
[10] In this novel by Isaac Bashevis Singer's brother Israel Joseph Singer, Simcha Mayer survives World War I by renouncing Judaism, but Jacob Bunim is shot for refusing to do so, though all is for naught when the economy of Lodz collapses.
ANSWER: The Brothers Ashkenazi
13. In this play, Margery Mumblecrust is chastised by Dame Christian for delivering a marriage proposal. For 10 points each:
[10] Name this 1553 comedy in which Matthew Merrygreeke eggs on the title braggart to pursue a match above his station, leading to a battle with kitchen implements.
ANSWER: Ralph Roister Doister
[10] This possible author of Jack Juggler wrote Ralph Roister Doister twelve years after being convicted of "buggery," thus inventing English-language comedy.
ANSWER: Nicholas Udall
[10] Perhaps equally important was Udall's translation of this man's commentary on the New Testament, which became a required manual for Anglican clergy. This author of Handbook of a Christian Knight wrote In Praise of Folly.
ANSWER: Desiderius Erasmus
019-14-67-09213
14. Mur ad-Din ruled from this city that had a famous Citadel in which Joscelin II was held captive. For 10 points each:
[10] Name this city, an emirate under Seljuk rule that was sacked by Tamarlane in 1400 and also contains a Great Mosque.
ANSWER: Aleppo
[10] After the fall of the Seljuks, Aleppo was ruled by the Ayyubid Dynasty that was founded by this dude.
This guy won the Battle of the Horns of Hattin and owned Richard the Lionheart.
ANSWER: Saladin [or Salah ad-Din Yusuf ibn Ayyub]
[10] Under Ottoman rule Aleppo was known as one of the largest trading cities in the world and was especially known for trading this resource that was imported from the Safavids.
ANSWER: Silk
15. Ketose monosaccharides test positive when exposed to this chemical because the ketose form is turned into an aldehyde by the basic conditions. For 10 points each:
[10] Name this chemical made up of cupric sulfate and sodium tartarate that can be used to distinguish aldehydes from ketones.
ANSWER: Fehling's reagent/solution/test
[10] This is the colour of the cupric oxide precipitate that is generated in a positive Fehling's test. It indicates the presence of an aldehyde.
ANSWER: brick red [accept other dark shades of red]
[10] Another test for detecting aldehydes is through the use of Tollens' reagent, in which aldehydes form a mirror of this colour.
ANSWER: silver [do not accept gray]
16. Name some important musical contributions of the perpetually underrated Carl Philipp Emanuel Bach.

For 10 points each:
[10] Bach played a major role in developing this form. Though many of his were monothematic, most pieces in this three-part form introduce one theme in the tonic and another in the dominant during the initial exposition section.
ANSWER: sonata-allegro form
[10] This later Classical composer, also fond of monothematic sonata forms, was heavily influenced by Bach. His string quartets include one whose second movement is a set of variations on his anthem "Gott erhalte Franz den Kaiser."
ANSWER: Franz Joseph Haydn
[10] This C. P. E. Bach oratorio features a neat bassoon obbligato during Moses's aria "Gott, sie dein Volk im Staube liegen!" The chorus then sings "O Wunder! O Wunder!" when they find water under a rock.
ANSWER: The Israelites in the Desert [or Die Israeliten in der Wuiste]
237-14-67-09216
17. This organization was started due to a possible trade between Joseph II and Carl Theodore. For 10 points each:
[10] Name this league established by Frederick the Great that united the kingdoms of Saxony, Prussia and other German states.
ANSWER: Furstenbund [or German League of Princes]
[10] Carl Thoedore was from this region ruled by the Wittelsbach Dynasty for many years. A namesake war of succession was fought here after the death of Maximilian Joseph of Wittelsbach.
ANSWER: Bavaria[accept Duchy of Bavaria; accept Electorate of Bavaria; accept War of Bavarian Succession]
[10] The Innvertiel was given to Joseph II in this treaty that ended the War of Bavarian Succession.
Negotiated by Russia, this treaty made Joseph II give up claims to Bavaria.
ANSWER: Treaty of Teschen[accept Peace of Teschen]
250-14-67-09217
18. This event is usually described as happening when Gaia sent a huge scorpion, though an alternate version says that Apollo tricked Artemis into firing an arrow at an unidentified object. For 10 points each: [10] Identify this event, after which Canis Major was created to keep its subject company in the sky. ANSWER: the death of Orion
[10] Orion was blinded by Oenopion, possibly for raping this daughter on Chios.
ANSWER: Merope
[10] Orion regained his sight after Hephaestus gave this servant to Orion and he was led to healing sunlight.
ANSWER: Cedalion
19. A monk recorded how this man once inspected a copy of the Book of Armagh, and one of his enemies cut down the sacred tree of Magh Adhair in an act of disrespect towards him. For 10 points each:
[10] Identify this king who was successful in battle over Mael Sechnaill and won the Battle of Balech Lechta.
ANSWER: Brian Boru [or Brian Boruma mac Cennetig or Brian Boroimhe or Brjann]
[10] Brian Boru was killed in this 1014 battle where Irish forces under Brian's son Murchad defeated
Sigtrygg Silkbeard and other Irish allies of the Vikings.
ANSWER: Battle of Clontarf [or Cath Chluain Tarbh]
[10] The Battle of Clontarf was fought on this holiday. The creation of the Northern Ireland Assembly was one of the three strands that constituted an agreement reached on this holiday in Belfast in 1998.
ANSWER: Good Friday
094-14-67-09219
20. In one experiment, this psychologist saw improved results when he tasked children with imaging the central objects of the experiment were cotton balls rather than food. For 10 points each:
[10] Identify this author of Personality and Assessment who repeatedly studied the effects of delay gratification in children.
ANSWER: Walter Mischel
[10] Mischel studied self-control in children in an experiment where he challenged children to refrain from eating one of these objects now in order to get two later. The kids who waited for two of these items grew up with better test scores.
ANSWER: marshmallows
[10] In The Better Angels of Our Nature, this Harvard professor argued that increased societal self-control was one of the reasons why there was a 30 -fold drop in the rates of homicide in Western Europe since the Middle Ages. He also wrote The Stuff of Thought and The Language Instinct.
ANSWER: Steven (Arthur) Pinker
21. This man is re-encountered in Fort Griffin after twenty-eight years of wandering, where he asks "Was it always your idea that if you did not speak you would not be recognized?" For 10 points each:
[10] Name this character whose death is unsuccessfully urged by Tobin.
ANSWER: the Judge [or Judge Holden]
[10] Judge Holden is a key member of the Glanton Gang, which is hired to scalp Indians in this novel by Cormac McCarthy.
ANSWER: Blood Meridian
[10] This symbolically named Army officer leads a disastrous filibustering mission into Mexico early in the novel, which leads to the imprisonment of The Kid and his subsequent affiliation with the Glanton gang. ANSWER: Captain White

