

1. An essay collection with this title, which includes takedowns of *Mad Men* and *Spider-Man: Turn Off the Dark* among other "essays from the classics to pop culture," was written by noted UVA classics alum Daniel Mendelsohn. The protagonist of a novel with this title repeatedly dreams of a faceless girl building a snow castle. In that novel of this title, the protagonist passes out giving oil rubs to a naked, scarred girl he keeps in his house. The line "They were, those people, a kind of solution" concludes a poem of this title shared by a novel pitting the Magistrate against Colonel Joll. For 10 points, give this title of a Constantin Cavafy poem later used for a novel by J. M. Coetzee.

ANSWER: *Waiting for the Barbarians*

2. The double basses sustain an A-flat in this opera's lengthy second-act monologue. This opera's opening act features the tenor singing his father's name "Walse" and includes the love duet "Wintersturme." One character in this opera introduces himself as "woeful," or Wehwalt, instead of revealing his true name, and later has his weapon shattered by a spear strike. This opera ends with the Magic Fire Music, representing the circle of flame that Loge has lit to protect the title character. The prelude to its third act incorporates the battle cry "Hojotoho" and has its galloping main theme played by the brass. For 10 points, name this second opera of the *Ring Cycle*, in which the sisters of the title character, Brunnhilde, go on a famous "ride."

ANSWER: *Die* *Walküre* [or *The* *Valkyrie*]

3. An attack on Chinese workers by this group prompted a fire in Waza National Park. Another action by this group sparked a ban on the use of motorcycles in the town of Maiduguri. A splinter group that opposes this organization carried out a prison break at the Special Anti-Robbery Squad headquarters and is called the Vanguard. This group was responsible for a shooting at the Deeper Life Center and recently detonated two car bombs in Jos. A leader of this group, who uses an alias referring to the oneness of God, appeared in a video stating that "slavery is allowed in my religion" after an event that inspired the #BringBackOurGirls hashtag campaign. For 10 points, name this group which kidnapped several hundred schoolgirls in April 2014, and is a militant Islamic group in Nigeria.

ANSWER: *Boko Haram*

4. This character was based on Laura Kieler, who wrote a sequel subtitled "A Picture of Life" to one of the author's earlier works. She hits a man for not being impressed by her flesh-colored stockings, and dresses as a Neapolitan fisher-girl at a ball hosted by the Stenborgs. This character admits that her father died on September 29, even though he signed a paper on October 2. She commonly hints at "the most wonderful thing of all." This woman violently dances a tarantella to prevent her husband from opening up the letterbox. At the beginning of the play, she welcomes Christine Linde and reveals that she borrowed money from Krogstad. For 10 points, name this woman who slams the door on her husband Torvald at the end of *A Doll House*.

ANSWER: *Nora* Helmer [prompt on *Helmer*]

5. In a celebrated passage, this thinker claimed that his final goal was to "grasp the native's point of view, his relation to life, to realize his vision of the world" to find out "the hold life has on him." He argued that charters, personnel, and norms were three of the six requirements for the establishment of any institution. This founder of biocultural functionalism hypothesized the "opposite flow" rule in a book about inhabitants of the Kiriwina Islands. This anthropologist described a system of gift exchange in which red-shell necklaces were moved in the opposite direction as white-shell armbands. For 10 points, name this anthropologist who described the Kula ring in *Argonauts of the Western Pacific*.

ANSWER: Bronislaw **Malinowski**

6. One of these events was witnessed by ambassador Neville Henderson, who wrote of its "solemn and beautiful" effect. An agent of the Black Front, Helmut Hirsch, attempted to bomb the location of these events. These events were partially organized by the author of the children's book *The Poisonous Mushroom*, Julius Streicher. At these events, flags were consecrated by being touched to the Blood Flag, and a "cathedral of light" effect was created using searchlights. Footage of one of these events is set "19 months after the rebirth" and replaced a purged earlier film about them, *Victory of Faith*. That film, *Triumph of the Will*, was made by Leni Riefenstahl. For 10 points, name these annual mass meetings held in a city where Nazi war criminals would later be tried.

ANSWER: **Nuremberg** Nazi **Rallies** [or obvious equivalents indicating **Nazi** meetings in **Nuremberg**; or Reich/**Nazi Party Congresses**, prompt on answers indicating Nazi **rallies** without the location]

7. A temple to Ptolemy VI was built as a double temple with axes leading to the sanctuaries of Horus and this deity and was located at Kom Ombo. This god's mother was the patroness of the city of Sais and was traditionally shown wearing a red crown and a bow and crossed arrows. The son of Neith, he was honored with the new name of the city of Arsinoe. This god was represented by a live creature known as Petsuchos. In the Book of the Dead, this god assisted in the birth of Horus, and he rescued the children of Horus with a fishing net. Additionally, this god carried Osiris on his back following Osiris' death and saved Osiris' hands with a fish trap. For 10 points, name this Egyptian god who was represented as a crocodile.

ANSWER: **Sobek**

8. During this man's reign, Edwin of Mercia and Morcar of Northumbria were defeated at the Battle of Fulford. This ruler was imprisoned by Guy of Ponthieu, and with his rescuer fought against Conan II, Duke of Brittany. A mysterious mark on this man's body was used to identify his corpse by Edith Swannesha, his widow, after he was torn apart by four knights. The Witenagemot picked this man to rule, and he defeated Harald Hardrada and this man's brother Tostig at Stamford Bridge shortly before his most famous battle. For 10 points, name this king of England who was killed at the Battle of Hastings.

ANSWER: **Harold Godwinson** [or **Harold II**; prompt on **Harold**]

9. These cells take on a spiculated appearance in a-beta-lipo-proteinemia, being called acanthocytes, while they take on a helmet shape in patients suffering from TTP. Parvovirus can arrest the development of these cells at the pronormoblast stage. A parasite that infects these cells uses the glycophorin C receptor. The immediate precursors of these cells are called reticulocytes. One enzyme found in these cells converts H<sub>2</sub>O and CO<sub>2</sub> to H<sub>2</sub>CO<sub>3</sub>. These cells also contain a protein that has two alpha and two beta chains whose mutation causes these cells to assume a curved shape. For 10 points, name these biconcave a-nucleated cells chock full of hemoglobin, which are responsible for carrying oxygen through the bloodstream.

ANSWER: red blood cells [or erythrocytes]

10. While visiting a siege during this war, Ambrose Burnside was pressed into service as a messenger between the two opposing sides. The first unofficial chess championship at Baden-Baden was interrupted when one of the grandmasters was called to active duty by this war. It is not World War One, but the Armistice of Versailles ended this war, and was signed by Jules Favre. A costly loss at Gravelotte in this war eventually led to an entrapment and decisive victory at the fortified city of Metz. As part of the Treaty of Frankfurt, one side was awarded the new territory of Alsace-Lorraine. The climax of this war saw the capture of Napoleon III at the Battle of Sedan. For 10 points, name this war which resulted in the unification of Germany under Otto von Bismarck.

ANSWER: Franco-Prussian War of 1870 [or the Franco-German War; or the War of 1870]

11. This artist responded to Sandro Botticelli's *The Birth of Venus* with a picture of two gyrating human-like forms, which might represent him and his wife Mell. Alongside Adolph Gottlieb and Barnett Newman, this artist submitted a "brief manifesto" to the *New York Times*. An acrimonious legal battle for this artist's estate broke out between his daughter Kate and his gallery's directors, Marlborough Fine Art, after he committed suicide at age 66. This artist pulled out of a commission to decorate the Four Seasons Restaurant, leaving behind the unfinished *Seagram Murals*. Characteristic paintings of this artist, such as *Black on Maroon*, involve the layered arrangement of blocks of different colors. For 10 points, name this Latvian-born color-field painter.

ANSWER: Mark Rothko [or Marcus Yakovlevich Rothkowitz]

12. Farmers in this country use a word meaning "land" to refer to the belief that this nation's geography and climate preclude its crops from being grown elsewhere. Bidonvilles are shanties in this country. The postwar economy of this country grew during the "thirty glorious years," and livestock predominates in this nation's Massif Central. The V150 train, which broke a land speed record for locomotives in 2007, operates on the TGV rail service in this country. This country's farmers benefit the most from the Common Agricultural Policy. About seventy-five percent of this nation's power comes from nuclear energy, more than any other country. For 10 points, name this second-largest economy in the European Union.

ANSWER: France [or the French Republic]

13. In Joel Chandler Harris's Uncle Remus tales, an animal of this type sings "Ingle-go-jang, my joy, my joy" after Brer Bear fails to kill it with an axe. A short story partly titled for this animal ends by cutting off a description of a "yeller one-eyed cow that didn't have no tail," and is framed by the narrator's search in Angels Camp for a reverend named Leonidas. In that story, Simon Wheeler describes one of these creatures named Dan'l Webster, which is filled with quail shot so that Jim Smiley will lose a bet. For 10 points, name this type of animal which, in a Mark Twain short story, engages in a jumping contest in Calaveras County.

ANSWER: **frogs** [or **bullfrogs**]

14. When an alcohol is mixed with this substance, its hydroxyl proton signal disappears from its NMR due to chemical exchange; unlike a related substance, this compound does not have an NMR signal. The Sudbury Neutrino Observatory attempted to detect neutrinos from the Sun interacting with this substance. In Operation Gunnerside during World War II, the Allies destroyed a production facility of this compound in Oslo. Because CANDU nuclear reactors use this substance as a coolant and as a source of neutrons, they do not require enriched uranium. Harold Urey first synthesized this compound. Its atomic mass is 20 daltons, due to two extra neutrons. For 10 points, name this compound known as deuterium oxide.

ANSWER: **heavy water** [or **deuterium oxide** until it is read]

15. One piece in this genre, an oft-cited example of cyclic form, contains a third movement marked "Recitativo-Fantasia." Near the beginning of the A-minor fast section of a major piece in this genre, the pianist interrupts with a huge C-major arpeggio. George Bridgetower was the intended dedicatee of that piece until he insulted a woman the composer loved. Cesar Franck's A-major piece of this kind was dedicated to Eugene Ysaye. Beethoven's F-major fifth piece in this genre was nicknamed "Spring." A more technically demanding piece of this kind is Giuseppe Tartini's *Devil's Trill*. The ninth of Beethoven's ten pieces in this genre is the *Kreutzer*. For 10 points, name these pieces in which a keyboard instrument accompanies the highest-pitched string instrument.

ANSWER: **violin sonata** [prompt on **sonata**]

16. One text says that during this event, the main participant was offered milk and wine, and when he chose milk, he was told he had chosen the *Fitrah*. The text named for and detailing this event also states that the Children of Israel will work corruption in to the earth twice, and details how every person has their fate tied to their necks and will be forced to read from a scroll of their deeds on judgment day. This undertaking was done with the help of a steed with a woman's face, and during this event the number of required daily prayers was reduced from 50 to 5. All seven heavens, with accompanying prophets, were visited during this event, which ended at "the Farthest Mosque", which is identified with Al-Aqsa. For 10 points, name this event in which Muhammad rode a flying horse from Mecca to Jerusalem and back.

ANSWER: **Night Journey** [or **Isra** and **Mi'raj**; accept either underlined portion]

17. The Goodman-Myhill theorem shows that this result is enough to prove the law of the excluded middle. The proof of the Cantor-Bernstein-Schroeder theorem notably does not rely on this result. It is used to prove a theorem stating that no first-order theory can control the cardinality of their infinite models, which is the Lowenstein-Skolem theorem. Equivalent to the statement that every vector space has a basis, this result plus ZF was shown by Paul Cohen to be independent of the continuum hypothesis. Often stated as the idea that the Cartesian product of a collection of non-empty sets is non-empty, this statement is equivalent to the idea that every non-empty set of positive integers has a least element, which is called the well-ordering principle. For 10 points, name this statement from mathematics, which allows any set to have some function to pick elements of the set.

ANSWER: axiom of choice [or Zorn's lemma; or well-ordering principle until it is read]

18. In one poem, this man wrote, “the stroke of eight is the stroke of Fate that makes a man accursed, and Fate will use a running noose for the best man and the worst.” In another work, he wrote, “The nineteenth-century dislike of realism is the rage of Caliban seeing his own face in a glass.” That aforementioned poem by this man was published under the name “C.3.3,” referring to the author’s room, and was inspired by the hanging of Charles Thomas Woolridge. He declared, “All art is quite useless,” in the preface to his only novel, and he observed that “each man kills the thing he loves” in a famous poem. For 10 points, name this poet of “The Ballad of Reading Gaol” who wrote *The Picture of Dorian Gray*.

ANSWER: Oscar Wilde

19. This event was partially caused by the killing of George Jackson. Frank "Big Black" Smith was tortured during this event, which took place after Vincent Mancusi repeatedly denied requests for improved sanitation. A man whose response to this event was widely criticized summarized deaths during this event in a phone call with the President using the phrase "that's life." A faulty bolt allowed the participants in this event to take control of D Yard before helicopters dropped tear gas and state troopers opened fire on the orders of Nelson Rockefeller. For 10 points, name this September 1971 riot that took place at a prison in upstate New York.

ANSWER: Attica riot [or Attica prison uprising]

20. This effect manifests in a difference in angle between the current density and electric field in short samples, such as the Corbino disc geometry. Using a square of semiconductor, with contacts at the corners where measurements are taken of resistivity and this phenomenon, the mobility and sheet density of a majority carrier can be determined by the van der Pauw (POW) method. Its conductivity, for certain conditions, is quantized at integer or rational fraction multiples of fundamental charge squared over Planck's constant, so it is used to define the Ohm. Due to the deflection of moving charges, the Lorentz force underlies it. For 10 points, name this effect that is the production of a potential difference due to the influence of a magnetic field transverse to current.

ANSWER: fractional quantum Hall effect

21. Robert Drew's documentary *Crisis* is a record of this event, and one figure involved in this event later became the director of environmental justice for the EPA and is the sister-in-law of Eric Holder. A speech given at this event quoted the text of the Tenth Amendment and states that this action was undertaken to "avoid...sacrifice on the altar of political expediency." A group led by Henry Graham diffused this situation after Attorney General Nicholas Katzenbach had failed. Vivian Malone Jones and James Hood were finally allowed to pay fees after the National Guard was called in by John F Kennedy, ending this event. For 10 points, name this event in which black students were prevented from entering Foster Auditorium at the University of Alabama by Governor George Wallace.

ANSWER: The **Stand in the Schoolhouse Door** [accept things like "George Wallace standing in the door of the University of Alabama", "That whole University of Alabama thing", etc. before mention]

22. In one novel by this writer, Mr. Brodsky's drunkenness obliges him to use an ironing board as a crutch to reach his conductor's podium. In another of his novels, the protagonist watches his father inspecting the steps where he dropped a tray as if to find a "precious jewel." That protagonist of his drives across the country to find a woman now named Mrs. Benn. In the former novel, this author wrote of an amnesiac pianist preparing to perform in an unnamed European town. The protagonist of the latter novel by this man eventually acknowledges Oswald Mosley's influence over his former employer, Lord Darlington. For 10 points, name this ethnically Japanese British novelist of *The Unconsoled* and *The Remains of the Day*.

ANSWER: Kazuo **Ishiguro**

23. The start of the Bølling-Allerød interstadial coincided with the MWP-1A event that caused a rapid change in this quantity. The first global, precise measurements of this quantity were done by the joint NASA/CNES TOPEX/Poseidon mission, whose followup is the currently-operating OSTM/Jason-2 mission. The zero level of this quantity - due only to the influence of Earth's gravity and rotation - is represented by the geoid. The displayed atmospheric pressure on weather maps is benchmarked to this level rather than the local elevation. Local changes in this quantity occur in transgressions and regressions, while its global change is known as "eustasy". For 10 points, name this elevation that is "rising" due to global warming.

ANSWER: mean **sea level** [or **sea surface** height; or mean **ocean surface**]

1. Answer some questions about King Midas, for 10 points each:

[10] King Midas was granted the Golden Touch by this god. This god's followers, the Maenads, ate his cousin Pentheus in a frenzy.

ANSWER: Dionysus

[10] Dionysus granted Midas the golden touch after Midas showed this tutor of Dionysus some hospitality. In a satyr play by Euripides, he is enslaved by a Cyclops.

ANSWER: Silenus

[10] Midas finally removed the golden touch by bathing in this river.

ANSWER: Pactolus

2. This man advocated traducianism, in which the soul was created at the same time from the body by one's parents, and he defended his faith in his *Apologeticus*. For 10 points each:

[10] Name this early Christian writer from Carthage who was the first to use the terms "Old Testament" and "New Testament."

ANSWER: Tertullian

[10] Tertullian was also notable for being the first Latin writer to use this term, which refers to the co-existence of the father, son and holy spirit as aspects of God.

ANSWER: trinity

[10] In his *On the Prescription of Heretics*, Tertullian draws a distinction between reason and the authority of scripture by asking what this city has to do with Jerusalem.

ANSWER: Athens

3. Sansón Carrasco challenges this character in disguises as the Knight of Mirrors and later as the Knight of the White Moon. For 10 points each:

[10] Name this so-called "Knight of the Sorrowful Face," a delusional middle-aged man who rides around Spain with Sancho in a novel by Cervantes.

ANSWER: Don Quixote de La Mancha [or Alonso Quijano the Good]

[10] In this building from Part I of *Don Quixote*, Dorotea, Don Fernando, Lucinda, and Cardenio resolve their love rectangle. The hunchback Maritornes lives in this place, where Sancho was tossed up and down in a blanket.

ANSWER: the inn which Don Quixote believes to be a castle

[10] In Part II, Quixote meets this wealthy duo, who have read the first part of the novel and use their knowledge to play increasingly-malicious tricks, such as having Sancho lash himself three thousand times.

ANSWER: the duke and the duchess

4. This painting was the centerpiece of its artist's "Pavilion of Realism," a one-man show he set up out of spite near the Pavilion of Art at the 1855 International Exhibition. For 10 points each: [10] Name this painting that offended the public by using the scale of history paintings to depict an ordinary event attended by lower-class folk in a town on the Swiss-French border.

ANSWER: A **Burial at Ornans** [or *Un Enterrement a Ornans*; or A **Painting of Human Figures**, *the History of a Burial at Ornans*; or **Tableau de Figures Humaines**, *Historique d'un Enterrement a Ornans*]

[10] This French Realist painter of *Burial at Ornans* also created *The Stone Breakers*.

ANSWER: Jean Desire Gustave **Courbet**

[10] Courbet created a wide-eyed, frightful-looking subject grabbing his hair in one of these paintings showing a "desperate man."

ANSWER: **self-portraits** [prompt on **portraits**]

5. The two scientists who performed this experiment smoked bad cigars full of sulfur, which made it very easy to see the distinct splitting pattern on the detection plate. For 10 points each: [10] Name this 1922 experiment in which atoms fired through an inhomogeneous magnetic field had splitting patterns formed by their different magnetic moments.

ANSWER: **Stern-Gerlach** experiment

[10] The results of the experiment were used by Pauli to predict that a quantum number representing this quantity, the intrinsic angular momentum of particles, could have a value of one-half.

ANSWER: **spin**

[10] The magnetic moment of a particle equals its angular momentum, times the Bohr magneton over h-bar, times this constant, which is very close to 2 for electron spin.

ANSWER: **g**-factor [or **g**-sub-e; or **g**-sub-s; or Landé's **g** factor]

6. This piece begins with a tutti E-flat chord from the orchestra, followed by a quasi-cadenza for the soloist, a tutti A-flat chord, another quasi-cadenza, a tutti B-flat chord, and one last quasi-cadenza before it gets moving. For 10 points each:

[10] Name this piece in E-flat major for solo piano and orchestra that was composed in 1811 as the last such piece by its composer.

ANSWER: **Emperor** Concerto [or Ludwig van **Beethoven's Piano Concerto No. 5** in E flat]

[10] The B-major second movement of Beethoven's "Emperor" concerto is given this Italian tempo marking, meaning "slowly," modified with the extra instruction "un poco mosso." Samuel Barber wrote a piece of this tempo *for Strings*.

ANSWER: **adagio**

[10] This Hungarian-born longtime conductor of the Cleveland Orchestra made recordings of all five Beethoven piano concertos with Leon Fleisher as the soloist.

ANSWER: George **Szell** [or György Endre **Szel**]



7. This country was home to a fascist movement called the Ustase (oos-ta-shuh). For 10 points each:

[10] Name this country which was more recently led by strongman Franjo Tudjman as it secured independence in a massacre-laden conflict.

ANSWER: Republic of **Croatia**

[10] Croatia secured independence from Yugoslavia in this Gregorian calendar year, in which the Dayton accords were also signed to end the war in Bosnia. A massacre of Bosnians in Srebrenica occurred during this year.

ANSWER: **1995** CE [or **1995** AD]

[10] Peacekeepers from this country failed to prevent the Srebrenica massacre. During the Nazi occupation of this country, Anne Frank was deported to Bergen-Belsen.

ANSWER: Republic of the **Netherlands** [or **Nederland**; or the **Dutch**; do not accept "Holland"]

8. This book divides identity into two parts: the "I" dealing with the reaction to others and the "Me" concerned with the attitudes of others. For 10 points each;

[10] Name this posthumously published sociological book by George Herbert Mead that argues that the individual is a product of socially significant gestures.

ANSWER: **Mind, Self, and Society**

[10] *Mind, Self, and Society* is one of the foundational texts of this school of sociology whose leaders include Herbert Blumer and Erving Goffman.

ANSWER: **symbolic interactionism** [or **dramaturgical** approach]

[10] Mead wrote a book about the "philosophy of the act," setting forth the four stages of impulse, perception, manipulation, and consummation. This author's nonfiction *Shadow and Act* discusses racial and literary issues; he also wrote about Ras the Destroyer.

ANSWER: Ralph **Ellison**

9. Edgar Allan Poe was the master of twist endings before O. Henry. For 10 points each:

[10] This Poe story ends with the narrator, Montresor, walling up the hapless Fortunato behind a wall after inviting him to try a vintage of the title wine.

ANSWER: "The **Cask of Amontillado**"

[10] C. Auguste Dupin discovers in "The Murders in the Rue Morgue" that the title killings were committed by this type of being.

ANSWER: a **orangutan** [prompt on **ape**]

[10] In Poe's "The Premature Burial," the narrator ends the story by resigning himself to the fate of being buried alive, only to discover that he is actually inside one of these things.

ANSWER: a **ship** [or **boat**; or obvious equivalents]

10. The Saratov Bridge crosses this river, which rises in the Valdai Hills. For 10 points each:

[10] Name this longest river in Europe, which flows into the Caspian Sea after crossing cities such as Nizhny Novgorod and Astrakhan.

ANSWER: **Volga** River

[10] The Volga flows through Moscow in this European country, the largest in the world by area.

ANSWER: **Russian** Federation

[10] Rostov is a city on this other river west of the Volga, which flows into the eastern part of the Sea of Azov. The Khopyor River is one of its tributaries.

ANSWER: **Don** River

11. These constructs are entirely described by a matrix whose entries are all non-negative, which is the transition matrix. For 10 points each:

[10] Name these constructs that consist of a series of states and a bunch of transition probabilities between those states. Processes described by these constructs are memoryless.

ANSWER: **Markov** chain

[10] These states in a Markov chain are inescapable. For example, when modelling gambling, the state where you run out of money is one of them.

ANSWER: **absorbing** state

[10] Markov chains describe Markov processes with this property, rather than continuous processes. Data of this type is counted as distinct and separate rather than measured.

ANSWER: **discrete**

12. This man's "Confessions" were published by the lawyer Thomas Gray after this man was executed for leading a rebellion in Southampton County. For 10 points each:

[10] Name this slave who led an 1831 rebellion in Virginia that killed more than fifty white people and was responded to with the killing of more than 200 black people.

ANSWER: Nathaniel **Turner**

[10] In 1811, Charles Deslondes led hundreds of slaves along the German Coast towards this port city, with several plantations being burned on the way before the revolt was put down.

ANSWER: **New Orleans**

[10] This fort built by the British in Florida near Georgia was a refuge for runaway slaves, who stayed after the British left in 1815. Garcon led the defense of this fort when it was destroyed in 1816 by U.S. troops under Duncan Clinch.

ANSWER: **Negro** Fort [or Fort **Apalachicola**; or Fort **Blount**; do not accept or prompt on "Fort Gadsden"]

13. Name some famous biological experiments, for 10 points each.

[10] This experiment produced amino acids and other organic compounds while trying to simulate the conditions of primordial Earth. Its results thus supported abiogenesis.

ANSWER: **Miller-Urey** experiment [or **Urey-Miller** experiment]

[10] The giant axons of this order of molluscs were used to study action potentials and led Hodgkin and Huxley to elucidate a model of such.

ANSWER: **squid** [or **Teuthida**]

[10] Using the T1 bacteriophage, this experiment showed that mutations are spontaneous, rather than induced in response to selection.

ANSWER: **Luria-Delbruck** experiment

14. Pierre Janssen discovered this element in spectral lines of the Sun's chromosphere during a solar eclipse. For 10 points each:

[10] Name this second-most abundant element in the universe.

ANSWER: helium [or He]

[10] This fusion reaction, which creates helium from the fusion of hydrogen without any other intermediates, is prevalent in stars of one solar mass or less.

ANSWER: p+-p+ chain [or proton-proton chain]

[10] The primary alternatives to the proton-proton chain are the CNO cycles, the first of which was elucidated by this physicist and Carl von Weizsäcker, with whom this physicist also names a semi-empirical mass formula for the nucleus.

ANSWER: Hans Bethe

15. This man's first foray beyond urban design projects was an Anasazi-inspired research lab he designed for the National Center for Atmospheric Research in Boulder, Colorado. For 10 points each:

[10] Name this Chinese architect, best known for his glass and steel pyramid that serves as the main entrance to the Louvre.

ANSWER: Ieoh Ming Pei

[10] Pei also used glass and steel for a pavilion he built for a structure of this kind in Boston. Spanish mission-style architecture was used for the two buildings of this kind in California, located in Simi Valley and Yorba Linda. There are thirteen total nationwide.

ANSWER: presidential libraries [prompt on library; prompt on museum]

[10] Pei designed a bamboo-shoot-inspired skyscraper for a bank headquartered in this Asian city. The Kowloon Walled City was an unmitigated architectural disaster built near this city.

ANSWER: Hong Kong [or HK]

16. In a 2010 survey, this man was ranked the worst postwar British Prime Minister, not even able to defeat Alec Douglas-Home. For 10 points each:

[10] Name this man who was Prime Minister during the Suez Crisis and who was also a three-time Foreign Secretary, including during most of World War II.

ANSWER: Anthony Eden [or Robert Anthony Eden]

[10] Eden succeeded this man as Prime Minister after having previously been his Foreign Secretary in both the 1940's and 1950's.

ANSWER: Sir Winston Churchill

[10] In 1956, this man joked that Eden may be "too stupid to be a prime minister." He is best known for being the Minister of Health during the creation of the National Health Service.

ANSWER: Aneurin "Nye" Bevan

17. After bad weather caused significant delays, this action's original codename of Operation Rutter was later changed to Operation Jubilee. For 10 points each:

[10] Identify this action which captured a heavily fortified French port city, but at the high cost of many Canadian soldiers killed. Many lessons learned here would be later put to use during the Normandy landings.

ANSWER: **Dieppe Raid** [or **Battle of Dieppe**]

[10] The Dieppe Raid occurred in this year, which also saw the Wannsee conference in Germany and the Torch Landings in Africa. In the Pacific, the previous year's disaster at Pearl Harbor was followed up with the total American victory at Midway in this year.

ANSWER: **1942**

[10] After Dieppe, these special tanks were designed by Royal Engineers for the Normandy landings. Variants of these tanks included the Crab, which used metal flails to clear mines in front, and the Crocodile, which carried a long range flamethrower.

ANSWER: **Hobart's Funnies**

18. A man writes a letter at this location saying he knew "the letter from Meirigen was a hoax." For 10 points each:

[10] Name this Swiss location from "The Final Problem," where both Sherlock Holmes and Professor Moriarty seem to die while fighting each other.

ANSWER: **Reichenbach Falls**

[10] Sherlock Holmes was created by this writer, who also believed that Harry Houdini had supernatural powers.

ANSWER: Arthur Conan **Doyle**

[10] In the Holmes story "The Adventure of the Speckled Band," Holmes eventually concludes that the title designation actually refers to one of these things.

ANSWER: a **snake** [or a swamp **adder**]

19. This character lent his name to a satirical magazine which survived from the Second Reich through two decades of West Germany. For 10 points each:

[10] Name this boy who wanders through the horrors of the Thirty Years War and becomes a hermit, the title hero of a 17th-century novel by Jacobus von Grimmelshausen.

ANSWER: **Simplicius** Simplicissimus [or Simplicius **Simplicissimus**]

[10] *Simplicissimus* is a German example of this genre, in which a roguish protagonist wanders widely and has comic adventures. Its Spanish exemplars include *Lazarillo de Tormes*.

ANSWER: **picaresque** novel

[10] This more recent author dealt with the Thirty Years War in *The Meeting at Telgte*. He revealed his teenage experiences in the SS in his memoir *Peeling the Onion*.

ANSWER: Günter **Grass**

20. Its examples include an assistant who brings a builder a pillar, block, slab, or beam when that word is called in a "language game" and seeing the "duckrabbit" image as one animal or the other. For 10 points each:

[10] Name this work written to show a metaphorical "fly out of the bottle," whose "beetle in a box" argument refutes the possibility of private language.

ANSWER: **Philosophical Investigations** [accept **Philosophische Untersuchungen**]

[10] This Austrian philosopher and author of *The Blue and Brown Books* and *Tractatus Logico-Philosophicus* analyzed language in *Philosophical Investigations*.

ANSWER: Ludwig **Wittgenstein**

[10] Wittgenstein's *Tractatus* defines this entity as "everything that is the case." It's not time, and Heidegger's concept of Dasein is also called "being-in" this.

ANSWER: the **world** [accept der **Welt**]

21. This man got his start working at his brother James's tavern in the West Bottoms area. For 10 points each:

[10] Name this political boss who controlled Jackson County in the early 20th century. His downfall came after Lloyd Stark investigated him for income tax evasion.

ANSWER: Thomas Joseph **Pendergast** [or "Boss Tom" **Pendergast**]

[10] Thomas Pendergast was a political boss in this Western Missouri city. This city's 18th and Vine Neighborhood gave birth to namesake styles of jazz and blues.

ANSWER: **Kansas City**, Missouri

[10] This location in Kansas City was where Frank Nash and four unarmed FBI agents were gunned down by a gang led by Vernon Miller that was attempting to free Nash. These locations were built in many American cities after the Pratt Street riot, to prevent soldiers having to cross local roads to change trains.

ANSWER: **Union Station** in Kansas City