1. Railroad pioneer Robert Stephenson was the godfather and namesake of this man, who disguised himself as a butterfly collector while serving as an intelligence officer in Dalmatia. This man invented a man-carrying kite and deployed an unmanned version of it to conduct photographic reconnaissance at Modder River. This man’s troops (*) pretended to bury landmines to deceive Boer forces at Mafeking [MAF-uh-“king”]. For 10 points—name this man who helped found the Girl Guides and the British scouting movement.

   answer: Robert Baden-Powell (or Robert Stephenson Smyth Baden-Powell, 1st Baron Baden-Powell)

2. This author received the nickname “the 20,000 poet” after he supposedly wrote 23,500 verses in a single 24-hour period. For 10 points each—
   A. Name this 17th-century author, who wrote about a “grudge provoked by a sedge hat” in his story collection The Great Mirror of Male Love.

   answer: Ihara Saikaku (ee-hah-rah “sigh”-kah-koo) (or Ibara Saikaku or Hirayama Togo)

   B. Saikaku’s The Life of an Amorous Woman is set in this Japanese city, which was the capital at the time he wrote. Yasunari Kawabata’s Beauty and Sadness is also set in this city.

   answer: Kyoto

   C. Ihara Saikaku developed a genre of novels set in this cultural setting. Masuji Ono is discredited for producing propaganda in a novel about an “artist of” this setting.

   answer: (the) floating world (or ukiyo)

2. One of these two characters tells the other that even Niobe remembered to eat, and claims that Zeus’s hall has two jars of blessings and curses. Hermes takes the guise of Polycor’s son to guide one of these two men, who tells the other to “remember your own father.” These two men arrange a twelve-day truce after the return of a (*) body that had been dragged behind a chariot. For 10 points—name these two Homeric characters, a Greek hero and the Trojan king whose son he killed.

   answer: Achilles (or Akhilleus)  
   Priam (or Priesam or Podarces; accept names in either order)

2. This award was first given to Léon Krier in 2003. For 10 points each—
   A. Name this annual award given by Notre Dame for contemporary classical architecture, often contrasted with the more modernist-leaning Pritzker Prize.

   answer: Drieuhaus (rhymes with “treehouse”) Architecture Prize (or The Richard H. Drieuhaus Prize at the University of Notre Dame)

   B. Winners of the Drieuhaus Prize receive a miniature of the Choragic [koh-“RAGE-ick”] Monument of Lysicrates ["lih-ICK-ray-eez"], which featured the first exterior use of this most ornate of the three classical orders.

   answer: Corinthian order (accept Corinthian column(s))

   C. The 2007 prize went to Jaquelin Robertson for designing the master plan of this Disney-developed community in Florida.

   answer: Celebration
3. The French exile Rodrigues Mingas controls the Military Position in this province. The northeastern part of this province was formerly covered in rainforest and is known as the Mayombé Hills. The Castanha, Coco, and Massambala oil discoveries are processed at the Malongo plant in this province, whose (*) independence is fought for by the FLEC and UNLC. This province is on the Atlantic coast between the Republic of Congo and the DR Congo. For 10 points—name this exclave of Angola.

answer: Cabinda (or Kabinda or Tchiowa)

3. This king asserted control over the papacy by appointing his countryman Bruno as the first German pope, Gregory V ["the fifth"]. For 10 points each—
   A. Name this Holy Roman Emperor who supported Christianization efforts like those of Adalbert of Prague. He allied with Boleslaw I of Poland at the Congress of Gniezno to fight the pagan Lutici [loo-TEE-chee].

answer: Otto III ["the third"] (prompt on “Otto”)

B. Otto’s other Christianization efforts helped convert this first Christian king of Hungary, who was born with the name Vajk [vyke].

answer: Stephen I (or Saint Stephen or Istvan)

C. After making Rome his capital, Otto crushed the Crescentii [kreh-SHEN-tee] family in a siege of this building. To increase security, Pope Nicholas II built the Passetto di Borgo to connect this building to the Vatican.

answer: Castel Sant’Angelo [kah-STEL sahn-TAHN-yeh-loh] (or Mausoleum of Hadrian or tomb of Hadrian or Hadrian’s mole)

4. A Syriac word for this woman’s descendants, maghraye [mah-GRAH-yeh], is discussed in a book about her “ism” by Patricia Crone and Michael Cook. This woman is emulated in a ritual called sa’i [SAH-ee]. According to Islam, she was given a bucket of dates by her husband, who worked with her son to build the Ka’aba. While (*) thirsty, this woman ran seven times between as-Safah and al-Marwah—two hills—before an angel created the Well of Zamzam. Arabs traditionally claim descent from—for 10 points—what mother of Ishmael?

answer: Hagar (or Hajar) [The book is Hagarism: The Making of the Islamic World.]

4. This author transposed Miss Julie to an English country house on the night of the 1945 Labour Party victory in his play After Miss Julie. For 10 points each—
   A. Name this contemporary British playwright and theatre director whose works include The Red Lion and Dealer’s Choice.

answer: Patrick Marber (or Patrick Albert Crispin Marber)

B. Marber recently wrote an adaptation of this 19th-century Russian play, in which Natalya Petrovna and her ward Vera both fall in love with the same man.

answer: A Month in the Country (or Mesiat v derevne)

C. A Month in the Country is a play by this creator of the nihilist Bazarov [BAZ-uh-roff]. He also wrote A Sportsman’s Sketches.

answer: Ivan (Sergeyevich) Turgenev [tur-"GAIN"-yeef]

5. These cells name a family of 22 proteins whose receptors complex with the Klotho [KLOH-thoh] family. When they possess actin, they resemble smooth muscle and have the prefix “myo-” ["MY-oh"]. Klf4 ["K-L-F-four"], c-Myc ["see-Mick"], Oct3/4 [AHKT-"three-four"], and Sox2 ["socks-two"] were used by Shinya Yamanaka to reprogram these cells into (*) induced pluripotent [pluh-"RIP-uh-tent"] stem cells. These cells synthesize glycosaminoglycans [glye-KOHS-uh-MEE-en-uh-GLYE-kanz], and are stimulated to divide by tissue damage. For 10 points—what primary cells of the connective tissue synthesize collagen ["CALL-uh-"-jen] and cause fibrosis in wound healing?

answer: fibroblasts (prompt on “fibrocyte(s)”)
5. Margaret Farrar was this puzzle’s first editor. For 10 points each—
A. Name this puzzle whose Sunday version consists of a 21-by-21 grid, while its daily variant is only 15-by-15.
answer: New York Times crossword puzzle (or NYT crossword puzzle; prompt on answers that mention only “crossword(s)”)  
B. The New York Times crossword has been edited since 1993 by this man, who has a college degree in “enigmatology,” or the study of puzzles.
answer: Will Shortz  
C. This Democratic politician’s surname was one of two possible answers to 39-Across in a classic New York Times crossword by Jeremiah Farrell. This crossword enthusiast appears in the documentary Wordplay.
answer: Bill Clinton (or William Jefferson Clinton or William Jefferson Blythe III) [The puzzle was constructed such that Bob Dole could also be a correct answer.]  

6. A leader of this political faction wrote the Hülsemann [HOOL-suh-min] letter addressing the international rights of American ships during the Koszta [KOHS-teh] Affair with Austria-Hungary. This faction’s name may derive from a word meaning “home base” in (*) Dutch. This faction’s leaders included Daniel S. Dickinson and William L. Marcy. After the 1848 election it split into the Softs and the Hards. For 10 points—name this pro-slavery faction of the 19th-century New York Democratic Party, which opposed the Barnburners.
answer: Hunkers (accept the Softs before “Dutch”)  

6. Endothelin [EN-doh-THEE-lin] receptor antagonists like bosentan [boh-SEN-tan] can be used to treat hypertension in this structure. For 10 points each—
A. Name this artery, which has an unusually low blood pressure of 8-20 millimeters mercury. It directs deoxygenated blood to the lungs.
answer: pulmonary artery  
B. Increased pulmonary artery pressure can be indicative of a left-to-right example of these pathways of blood flow that deviate from normal circulation.
answer: cardiac shunts  
C. In the fetal heart, this shunt connects the main pulmonary artery to the proximal descending aorta [ay-OR-tuh], allowing blood to bypass the non-functioning lungs.
answer: ductus arteriosus (or ductus Botalli)  

7. The father of this novel’s title character was a town mayor under the Consulate before being replaced by “a large landowner.” Its title character is confined to her room on a diet of bread and water after her father—who economizes “everything, even movement”—finds that she has given her collection of (*) gold coins to her bankrupt cousin and love interest, Charles. The town of Saumur is the setting of—for 10 points—what novel about the about the daughter of the greedy Felix, by Honoré de Balzac?
answer: Eugénie Grandet [yoo-zhay-nee grahn-day]  

7. For 10 points each—answer the following about crime in 1970s New York:  
A. This set of harsh narcotic laws was passed in 1973; it prescribed penalties such as 25 years in prison for possession of four ounces of cocaine.
answer: Rockefeller (drug) laws  
B. Nelson Rockefeller said “that’s life” in reference to the 39 deaths during the storming of this state prison, where inmates took guards as hostages in September 1971.
answer: Attica (Correctional Facility)  
C. Over five million dollars in cash and jewels were stolen by Lucchese [loo-KAY-zee] mafia associates in this 1978 incident at JFK airport masterminded by Jimmy Burke.
answer: Lufthansa [loof-TAHN-suh] heist or robbery
8. This event is said to have taken place in the ahalya bhumi, an unplowed field in Vasokund. The fifth afternoon of Paryushana features a recounting of this event accompanied by 14 boli or auctions that correspond to auspicious dreams, including visions of a full moon and of a four-tusked white (*) elephant. The antelope-headed god Harinaigameshin transferred a fetus from Devananda to Queen Trishala prior to—for 10 points—what event at the start of the life of the last tirthankara [teer-TUNG-kuh] of Jainism?
answer: birth of Mahavira (or birth of Vardhamana)

8. In the wake of the 2008 financial crisis, this academic published thirteen video lectures on “Reading” Karl Marx’s Capital. For 10 points each—
A. Name this advocate of the “right to the city” movement, who characterized neoliberalism as “accumulation by dispossession” in The New Imperialism.
answer: David Harvey
B. This French sociologist introduced the notion of the “right to the city,” and argued that the modern quotidian experience is valueless in his three-volume Critique of Everyday Life.
answer: Henri Lefebvre [luh-FEV-ruh]
C. Lefebvre’s Critique savages modern society’s obsession over this activity. Thorstein Veblen identified a “conspicuous” variety of this activity used to display prestige.
answer: consumption (accept consumerism or conspicuous consumption)

9. A mechanic was arrested in one of these two countries for using women’s underwear soaked in invisible ink to pass secrets to the other. Military intelligence from one of these countries instructed citizens of the other to plant bombs in cinemas and libraries in Operation Susannah. One of these countries launched a massive (*) airstrike in 1967 after the other one closed shipping in the Straits of Tiran [tih-RAHN]. The Camp David Accords were signed between—for 10 points—what two Middle Eastern countries?
answer: Egypt (or Arab Republic of Egypt or Gumhuriyat Misr al-Arabiyyah; accept UAR or United Arab Republic or Al-Jumhuriyah al-'Arabiyyah al-Muttahidah)
Israel (or State of Israel or Medinat Yisra’el) (accept answers in either order)

9. Lennart von Post developed the first technique to use this substance to date layers of sediment. For 10 points each—
A. Name this substance produced by plants. Palynologists [PAL-uh-NAH-luh-jists] use this substance and spores as index fossils.
answer: pollen
B. Three periods of time within the Quaternary are named after this plant, because high levels of its pollen have been found in corresponding strata.
answer: Dryas ['DRY-us'] octopetala (accept white dryas)
C. The Older and Younger Dryas are two of these periods of time in the Quaternary, which correspond to a cooler climate than their counterparts.
answer: stadials [STAY-dee-ulz] [contrasted with interstadials]

10. A Lorenzo Lotto painting of this woman includes a cartouche [‘car'-TOOSH] showing her dialogue. This woman has several white and silver objects at her feet, including a comb and a silk shawl, in a painting in which she sits in front of a rose trellis, by Tintoretto [TIN-toh-REH-toh]. This woman sits on a ledge while two (*) men behind her whisper to each other in a painting by Artemisia Gentileschi [ar-tuh-MEEZ-uh jen-til-EES-kee]. For 10 points—name this woman from the Book of Daniel who is accosted by “elders” in a common artistic scene.
answer: Susanna (accept Susanna and the Elders)
10. The 1913 Zabern affair was a diplomatic crisis in this border region that arose due to this region’s occupation by German troops. For 10 points each—
A. Name this region with a hyphenated name, which reverted to France in 1918. It was subsumed into the region of Grand Est [GRAHN ess] by the French government in 2016.
answer: Alsace[-Lorraine] [AL-sass-loh-’RAIN’] (or Elsass-Lothringen; prompt on partial answers)
B. This 751-member organization holds some of its meetings in Strasbourg, the most populous city of historical Alsace-Lorraine.
answer: European Parliament (prompt on “European Union” or “EP” or “EU”)
C. This pacifist poet of Dreamweed and a “Requiem for the Fallen Soldiers of Europe” was from Alsace-Lorraine. He wrote in French and German.
answer: Yvan Goll (or Iwan Goll or Isaac Lang)

11. A retired Army officer with this surname, who noted that rates of “nonfirers throughout history” plummeted in Vietnam in his 1995 book On Killing, teaches “killology” seminars to police departments. A woman with this surname produced a 2003 English translation of Don Quixote. A 2009 novel that introduced Ember and Umber, the ram gods of (*) Fillory, was written by a man with this surname. Quentin Coldwater was created by—for 10 points—what author of the Magicians trilogy, whose first name is Lev?
answer: Grossman (accept Dave Grossman or Edith (or Edie) Grossman or Lev Grossman)

11. William Empson wrote a book about “some versions of” this literary genre, which Empson argued was “about the people” but not “by” or “for” them. For 10 points each—
A. Name this poetic genre that often focuses on peaceful shepherds and rural life.
answer: pastoral poetry (accept Some Versions of Pastoral)
B. Edmund Spenser dedicated his poem The Shepeardes [’shepherd’s] Calender to this man. Strephon and Klaius narrate this author’s pastoral double sestina, “Ye Goatherd Gods,” part of a long prose work.
answer: Sir Philip Sidney
C. Calidore [KAL-uh-dor] becomes a shepherd and falls in love with Pastorella in this book of The Faerie Queene, which is followed by “Two Cantos of Mutabilitie.”
answer: Book 6

12. This album set a Billboard 200 record by dropping from number one in its first week on the chart to number 97 in its second week. For 10 points each—
A. Name this 2017 album, which received acclaim reminiscent of its band’s 2000s-era albums Deja Entendu and The Devil and God Are Raging Inside Me.
answer: Science Fiction
B. Science Fiction is the fifth album by this emo [EE-moh] band led by Jesse Lacey, whose songs include “The Quiet Things That No One Ever Knows.”
answer: Brand New
C. Science Fiction knocked this artist’s album Rainbow, which features the songs “Woman” and “Praying,” off the top of the Billboard chart. She also recorded “Tik Tok.”
answer: Kesha (or Ke$ha or Kesha Rose Sebert)
13. During a campaign to force these exhibitions to charge paid admission in 1959, Robert Moses circulated an anonymous letter that accused their organizer of being a Communist. The permanent site of these exhibitions overlooks Turtle Pond and Belvedere Castle. In 1987 Martin Sheen and Al Pacino appeared in one of these exhibitions, which take place at the Delacorte Theater. Joseph Papp arranged the first of—for 10 points—what free outdoor performances of Elizabethan drama in Central Park? 
answer: (Free) Shakespeare in the Park (accept New York Shakespeare Festival or answers indicating Shakespeare plays performed in Central Park; prompt on broad answers like “play(s)” before “Belvedere Castle”)

13. This subfield of optics analyzes cases in which the incident light’s electric field is comparable to the Coulomb field in a sample. For 10 points each—
A. Name this field, which often models the polarization as a cubic polynomial in the electric field. 
answer: nonlinear optics
B. One nonlinear effect is the generation of the “second” of these modes. In general, the $n$th of these modes has $n$ times the frequency of the “first” one, which is known as the fundamental frequency. 
answer: harmonic(s) (or harmonic mode(s); accept second harmonic generation or first harmonic)
C. This nonlinear process leaves molecules in an excited state, and has a transition rate proportional to the square of the light intensity. 
answer: two-photon absorption (prompt on “absorption”)

14. Alonzo Church and Stephen Kleene name one of these values that is non-recursive and is defined as the supremum of all the ones that are recursive. In some theories, trying to construct the set of these numbers leads to the Burali-Forti paradox. The smallest transfinite one of these numbers is denoted by lower-case omega, and has cardinality aleph-zero. Cardinal numbers are contrasted with—for 10 points—what numbers, whose name in everyday usage refers to adjectives like “third”? 
answer: ordinal numbers (or ordinals)

14. For 10 points each—name these African politicians whose careers intersected with plane crashes:
A. Twelve years after Mozambican President Samora Machel died in a plane crash, this man married his widow Graça. He was released from Robben Island in 1990. 
answer: Nelson (Rolihlahla) Mandela
B. This Rwandan President was killed in a plane crash in 1994, fueling the tensions that led to that year’s genocide. 
answer: Juvénal Habyarimana [zoo-veh-NAHL hahb-yah-reh-MAH-nah]
C. This dictator of Togo served from 1967 until his death aboard a plane in 2005. This man, who survived an earlier plane crash in 1974, kept a troupe of 1,000 dancing women for formal events as part of his cult of personality. 
answer: Gnassingbé Eyadéma (or Étienne Eyadéma) [nyah-SEEM-bay ay-yah-DAY-muh]

15. One of this author’s characters hangs himself in a smokehouse after being driven insane by a piece of ham he is forced to wear around his neck. Another of his characters is sliced in pieces at a sawmill after his wife Tenie turns him into a tree. This author of “Dave’s Neckliss” and “Po’ Sandy” wrote about a slave whose vitality is linked with the health of a vineyard in a story narrated by Uncle Julius. For 10 points—name this author whose “The Goophered Grapevine” (“the GOO-furd ‘grapevine’) appears in The Conjure Woman.”
answer: Charles (Waddell) Chesnutt
15. This composer omitted violins from his 2005 work *Sculpture*, which was inspired by the architecture of Walt Disney Concert Hall. For 10 points each—
A. Name this composer who used traditional winds and strings, non-traditional percussion, and electronics in his 1985 work *Kraft*.
  answer: Magnus Lindberg (or Magnus (Gustaf Adolf) Lindberg)
B. Lindberg’s other works include a “concerto for” this ensemble, which he declared his “favorite instrument.” Béla Bartók’s concerto for this ensemble includes a “Game of Pairs” movement.
  answer: orchestra (accept *Concerto for Orchestra*)
C. Both *Sculpture* and *Kraft* were premiered under the baton of this Finnish conductor and composer, who was music director of the LA Phil from 1992 to 2009.
  answer: Esa-Pekka Salonen [ESS-uh “PECK”-uh SAL-uh-nin]

16. Most Shi’a disregard a *hadith* saying that ten members of this group, including Talhah [TAL-huh] and Sa’id ibn Zayd [sah-EED ib-un ZYDEJ], were granted entry into Jannah [JAN-nah] while on Earth. The Tabi’un [tah-bee-OON] are a (*) generation after this group, whose members include the Mukathirun [moo-kahk-thee-ROON], or “reporters of many traditions,” who related hundreds of *hadiths*. This group comprises those who witnessed the prophet and converted to Islam before their deaths. The first four caliphs were part of—for 10 points—what group of friends of Muhammad?
  answer: as-Sahaba (or as-Sahabi or companions of Muhammad; prompt on “followers of Muhammad” or “friends of Muhammad” or “Muslims” or “the first Muslims”)

16. William Gowland identified the mountains dividing Honshu as the “Japanese” version of this mountain range. For 10 points each—
A. Name this European mountain range. A “southern” version of this range is found in New Zealand.
  answer: Alps (accept Japanese Alps or Southern Alps)
B. The Japanese Alps are divided into three ranges—Hida, Akaishi [ah-kah-ee-shee], and a mountain range of this name. This is also the name of a “central mountain route” with 69 rest stations known as the Nakasendo.
  answer: Kiso (accept Kiso road or Kiso-kaidou)
C. The Japanese Alps dominate this landlocked prefecture that hosted the 1998 Winter Olympics.
  answer: Nagano prefecture (or Nagano-ken)

17. In a video taken in this state, a person asks an older man to say the name “Joy Lane.” This state’s largest police investigation focused on the Rhoden family after eight family members were shot execution-style in 2016. In this state, Robert Godwin was killed by Steve Stephens, who posted a (*) video of the shooting on his Facebook account. A May 2016 shooting in this state was meant to save a boy at a zoo. For 10 points—name this state where Harambe [hah-rom-bay] the gorilla was killed.
  answer: Ohio

17. A D. M. Armstrong book offers a “combinatorial theory” of this concept. For 10 points each—
A. Name this property contrasted with necessity. Gottfried Leibniz believed that God surveyed all worlds with this property before creating ours, the “best of all” worlds with this property.
  answer: possibility or possible (accept possible worlds or A Combinatorial Theory of Possibility)
B. Necessity and possibility are operators in this form of logic, which quantifies across possible worlds. Saul Kripke devised semantics for this type of logic.
  answer: modal logic (or logic of modality)
C. This female logician, a contemporary of Harry Frankfurt at Yale, related quantifiers to modal operators in her namesake formula.
  answer: Ruth Barcan Marcus (accept either underlined portion; accept Barcan formula or Marcus formula)
18. Interfering species in ICP-MS can be removed by “discriminating” based on this quantity. Particles are sorted based on their value of this quantity in a hemispherical analyzer. Ions with equal values of this quantity are passed through a drift tube in time-of-flight mass spectrometry. For a Maxwell-Boltzmann gas, the (*) average value of this quantity equals three-halves \( kT \), matching the result of the equipartition theorem. For 10 points—what quantity classically equals “one-half \( m \) \( v^2 \)?

Answer: (translational) kinetic energy (prompt on “energy”)

18. In a 2013 game, this NBA player was filmed trying to cheer up his teammate Alexey Shved by telling him to “change this face.” For 10 points each—

A. Name this guard who was traded in 2017 to the Utah Jazz.
Answer: Ricky Rubio (or Ricard Rubio i Vives)

B. Rubio was traded to the Jazz by this president and coach of the Minnesota Timberwolves, who claimed to be putting the “team first” by doing so.
Answer: Tom Thibodeau (or Thomas (Joseph) Thibodeau (Jr.))

C. Rubio was taken by the Timberwolves with the fifth pick in the 2009 NBA draft; two picks later, this other point guard and future two-time MVP was taken by the Warriors.
Answer: Stephen Curry (or Steph Curry or Wardell Stephen Curry II)

19. In this film, a judge relates how the people of Athens once opened their gates to a tyrant they had previously banished. This film’s characters include Harvey Pell, who gives up his deputy’s badge after being passed over for a promotion. Toward the end of this film, Amy Fowler—who is played by (*) Grace Kelly—shoots a man in his back, despite the pacifism of her Quaker religion. For 10 points—name this Western in which outlaw Frank Miller is faced by Gary Cooper’s Will Kane at the title time.

Answer: High Noon

19. Dihalo-cyclopropanes are converted to these compounds through reaction with organolithium bases in the Skattebøl rearrangement. For 10 points each—

A. Name these dienes containing adjacent double bonds. One of these compounds exists in equilibrium with propyne in MAPP gas.
Answer: allenes (accept cumulated dienes)

B. Both MAPP gas and this simplest alkyne can serve as welding fuels.
Answer: acetylene (or ethyne; accept C\(_2\)H\(_2\))

C. Adjacent double bonds are also found in these functional groups discovered by Hermann Staudinger, who reacted them with imines to make the first synthetic beta-lactams.
Answer: ketenes (do not accept or prompt on “ketone(s)”)
20. This group’s second incarnation was founded in 1915 at Stone Mountain. For 10 points each—
A. Name this secret society lionized in *The Birth of a Nation*.
answer: Ku Klux Klan (or KKK)
B. The Klan’s 1920s resurgence was curtailed by a 1925 scandal in which this Grand Dragon from Indiana was convicted of rape and murder.
answer: D. C. Stephenson (or David Curtiss Stephenson; prompt on “Steve”)  
C. During the resurgence, Virgil Effinger founded this paramilitary group of vigilantes to protect Klan officers. Its members, which included many Detroit police officers, numbered over 135,000 during the Depression.
answer: Black Legion

21. In one passage, this critic imagined the “cinque-spotted shadow” thrown by a “water-insect” on a brook.
This man proposed a secular “clerisy” tasked with preserving literary tradition. He named his son for, but later rejected the views of, the associationist David Hartley. He discussed his “obligations to Schelling” in a work that distinguishes primary and secondary (*) imagination. The phrase “willing suspension of disbelief” was coined in *Biographia Literaria* by—for 10 points—what poet of *Christabel*?
answer: Samuel Taylor Coleridge

21. This country plans to nearly triple its nuclear power capacity by swapping over to a new plant by 2026. For 10 points each—
A. Name this country, which currently receives about 40 percent of its electricity from the Metsamor nuclear power plant.
answer: Armenia (or Republic of Armenia or Hayastani Hanrapetut’yun)
B. Armenia is a strategic partner with this neighboring country, whose own attempts to obtain nuclear power led to a “nuclear deal” with the U.S.
answer: Iran (or Islamic Republic of Iran or Jomhuri-ye Eslami-ye Iran)
C. Iran’s Bushehr nuclear plant was built by companies from Russia and this country, which in 2011 announced a plan to close its own 17 nuclear power plants by 2022.
answer: Germany (or Federal Republic of Germany or Bundesrepublik Deutschland)

22. When the incident beams have this property, measurements of the Hong-Ou-Mandel effect will be perfectly correlated. A system of particles with this property has quantum states defined in a Fock space, and a wavefunction that is symmetric or antisymmetric under (*) exchange according to the spin-statistics theorem. A 1 over $N$ factorial term multiplies the partition function of a collection of $N$ particles that possess—for 10 points—what property of looking exactly the same?
answer: indistinguishable or identical particles (or indiscernible particles; accept answers indicating particles that cannot be distinguished; accept particles that look the same before “same”)

22. This model ignores gas exchange between the intergalactic medium and the interstellar medium. For 10 points each—
A. Name this model of a galaxy’s chemical evolution over multiple generations of stars. It is often contrasted with a “leaky” counterpart.
answer: closed box model
B. The closed box model shows a monotonic increase in this quantity. It is the mass fraction of a star or gas in elements other than hydrogen and helium.
answer: metallicity (prompt on “Z”)
C. The closed box model allows stellar material to enrich the ISM through stellar winds and these events, which can form neutron stars and black holes.
answer: supernovas or supernovae
23. In 2017 a leader of this party blamed his then-girlfriend for citing Holocaust denier David Irving in an undergraduate paper in 1999. In 2017 this party unveiled a logo consisting of a lion and the phrase “for the nation” in its colors of purple and yellow. Henry (*) Bolton won a 2017 leadership election for this party, whose 2017 general election results faltered a year after it was the largest party to support the “leave” option. For 10 points—what Eurosceptic party was once led by Nigel Farage [“FAIR”-azh]?
   answer: UK Independence Party (or UKIP)

23. This state backed the peasant revolt of Ivaylo the Cabbage against Michael VIII Palaeologus. For 10 points each—
   A. Name this Mongol khanate that ruled Russia in the medieval era.
   answer: Golden Horde (or Zolotaya Orda or Kipchak Khanate; prompt on partial answer)
   B. In the late 14th century, this khan briefly reunited the Blue and White factions of the Golden Horde, before he was deposed by Tamerlane.
   answer: Tokhtamysh [TOK-tuh-mish]
   C. In the late 15th century, the power of the Golden Horde largely disintegrated following the Great Stand on the Ugra River, where the horde refused to engage this Grand Prince of Moscow.
   answer: Ivan III (or Ivan the Great; prompt on “Ivan”)

24. A man with this position asks Seth Wright to work for him after going into a bathroom to vomit. Another man with this position murders Verna Thornton in the hospital after learning about the Defiance conspiracy. On one TV series, this position is held by (*) Mellie, the ex-wife of a man who also held it and who had an affair with Olivia Pope. For 10 points—what position, which was held by Fitz Grant on the show Scandal, is held by former Cabinet member Tom Kirkman on Designated Survivor?
   answer: President of the United States (accept POTUS)

24. A contemporary review of this 1849 novel opined that its author “will never have the power of a Cringle, or the sustained humour and vivacity of a Marryat.” For 10 points each—
   A. Identify this work about the adventures of a man whose first name is Wellingborough. It ends with the narrator hearing about the death of his friend Harry Bolton while whaling.
   answer: Redburn (: His First Voyage)
   B. Two years after publishing Redburn, this author published Moby-Dick.
   answer: Herman Melville
   C. In chapter 27 of Redburn, the title character “at last arrives” in this British city. In 1856 Melville visited this city, where Nathaniel Hawthorne served as an American consul.
   answer: Liverpool