1. **In one episode of this TV show, the protagonist's childhood neighbor, Mrs. De Luca, blew herself up after admitting that she didn't have a premonition of the accident that killed the protagonist's family. The title character tries to help Hope (\*)** Shlottman, who is compelled to kill her parents by a man with mind-control powers named Kilgrave. Krysten Ritter plays the title superhero on—for 10 points—what Netflix series?

answer: (Marvel's) Jessica Jones

<TRASH, POP CULT>

2. **This character sarcastically asks if he should speak “with bated breath and whispering courtesies” while talking to an enemy who once spit on him. He loses part of his wealth when his daughter Jessica elopes. This man offers money to Bassanio, but demands a (\*)** pound of Antonio's flesh as collateral. The question “hath not a Jew eyes?” is asked by—for 10 points—what antagonist of Shakespeare's play *The Merchant of Venice*?

answer: Shylock

<LIT, BRIT>

3. **In this city, informal garbage collectors called Zabbaleen reside in the slum of Garbage City. This city's original Shepheard's Hotel burned down in a 1952 riot, precipitating a revolution led by Muhammad Naguib** [nah-GEEB] **and the Free Officers' Movement. In this capital, the headquarters of the (\*)** Arab League stand next to Tahrir [tah-REER] Square, the site of 2011 protests against Hosni Mubarak [HAHZ-nee moo-BAH-rahk]. For 10 points—name this capital of Egypt.

answer: Cairo (or al-Qahirah)

<GEO, GEO>

4. **This title figure is adorned “with drawers and pompoms” in a sculpture by Salvador Dalí. Giorgione's** [jor-JOH-nee'z] **painting of this figure ”sleeping” had its detailed rural background finished by Titian** [TEE-shun]**, who himself depicted a dog curled up on a bed at the feet of this reclining nude figure. In another work, (\*)** Zephyr blows this nude figure ashore in a seashell. For 10 points—name this figure whose ”birth” was painted by Sandro Botticelli.

answer: Venus (accept Venus with Drawers and Pompoms or the Venus de Milo or Sleeping Venus or Dresden Venus or Venus of Urbino or The Birth of Venus or Nascita di Venere) [Salvador Dalí's *Venus with Drawers and Pompoms* is a modified version of the *Venus de Milo*.]

<FA, VISUAL>

5. **In one story by this author, the cries of a parrot named Loulou are the only sounds that the deaf maid Félicité** [fay-lee-see-tay] **is capable of hearing. This author of “A Simple Heart” wrote a novel in which a young doctor sets up practice in the town of Tostes** [TOHSS-tuh]**, and falls in love with the convent-educated daughter of Monsieur (\*)** Rouault [mess-yoor roo-oh]. For 10 points—name this author who depicted an adulterous wife named Emma in *Madame Bovary* [BOH-vah-ree].

answer: Gustave Flaubert [“goose”-tahv “flow-bare”]

<LIT, EURO>

6. **The Doppler effect's change of absorption and emission lines is the only way to find the ”spectroscopic” type of these systems. The anomalous growth of some of these systems is the subject of the Algol Paradox; Algol is one of these systems called the “Demon Star.” (\*)** Sirius is an example of one of these extrinsic variable stars. For 10 points—name these systems in which two stars orbit a common center of mass.

answer: binary stars

<SCI, OTHER>

7. **James Fallows' essay “The Passionless Presidency” describes this man's reaction to the resignation of Bert Lance and his reliance on Hamilton Jordan in the White House. This man, who named Paul Volcker to head the Federal Reserve after giving his “malaise” speech, saw his popularity drop during the (\*)** Iran hostage crisis. For 10 points—name this president who brokered the Camp David Accords but lost to Ronald Reagan in 1980.

answer: Jimmy Carter (or James Earl Carter Jr.)

<HIST, AMER>

8. **This character vomits at Mr. Cunningham's ice cream parlor, which was built on the site of her childhood home. After reading a pamphlet titled *The Black Plague*, she finds her fiancé Henry at a Citizens' Council meeting. This character recalls playing with (\*)** Dill Harris in the novel *Go Set a Watchman*. The lawyer Atticus is the father of—for 10 points—what character who also narrates Harper Lee's *To Kill a Mockingbird*?

answer: Scout Finch or Jean Louise Finch (prompt on “Finch” or “Jean”)

<LIT, AMER>

9. **A St. Paul police officer urged people to run over members of this movement in a Facebook post. In January 2016 people affiliated with this movement blocked traffic on San Francisco's Bay Bridge. A member of this movement used the sign “16 (\*)** Shots and a Cover-up” at a U.S. Conference of Mayors meeting, referencing Laquan McDonald. For 10 points—name this movement formed in response to shootings of African-Americans.

answer: Black Lives Matter (accept #BlackLivesMatter)

<CE, CE>

10. **While working on one of these programs named THE** [“T-H-E”]**, Edsger Dijkstra** [“DIKE”-struh] **developed the banker's algorithm. These programs have a kernel to translate requests—perhaps using drivers—for displays, network adapters, and other components. These programs hide the details of physical memory, disk storage, and other hardware from (\*)** user applications. For 10 points—name this type of “system” exemplified by Linux and Microsoft Windows.

answer: operating system (or OS; accept operating after “system”)

<SCI, OTHER>

11. **In 2015 this team's bullpen included Kevin Siegrist** [SEE-grist] **and Trevor Rosenthal. This team lost a 2015 NLDS series to a division rival that, in the offseason, signed away this team's free agents John Lackey and Jason Heyward. A former scouting director of this team, Chris Correa** [core-AY-uh]**, (\*)** hacked a Houston Astros database. The Cubs are division rivals of—for 10 points—what MLB team, based in Missouri and nicknamed the “Redbirds”?

answer: St. Louis Cardinals (accept either underlined portion; accept Cards)

<TRASH, SPORTS>

12. **One national leader with this surname took bribes from a Swedish arms company in the Bofors scandal and was killed by the LTTE** [“L-T-T-E”]**. Another politician with this surname declared a period of crisis called “the Emergency” and ordered Operation Blue Star to seize the Golden (\*)** Temple in Amritsar [um-RIT-sur], after which she was assassinated by Sikh bodyguards. For 10 points—what surname was shared by Indian prime ministers Rajiv [rah-JEEV] and Indira [in-DEER-uh]?

answer: Gandhi (accept Rajiv (Ratna) Gandhi or Indira (Priyadarshini) Gandhi; do not accept or prompt on “Nehru”)

<HIST, WORLD>

13. **This color appears in the title of a murder mystery that begins with the corpse of a miniaturist describing how he was killed; that book is by Orhan Pamuk** [OR-hahn PAH-mook]**. Henri Matisse** [awn-ree mah-teess] **used this color to depict a (\*)** room in which blue vines adorn the room's walls. The cochineal [kok-uh-NEEL] insect is the source of carmine, a dye of this color. Vermilion is a shade of—for 10 points—what color worn by British soldiers during the American Revolution?

answer: red (accept My Name is Red or The Red Room or Redcoats)

<MISC., MISC.>

14. **The Darcy-Weisbach equation determines the loss of pressure for a fluid in a pipe due to this force. Laws named for Guillaume Amontons** [gwee-yahm aw-mohn-tohn] **and Charles-Augustin de Coulomb** [sharl oh-goo-stan day koo-lawm] **say this force is independent of contact area and velocity, respectively. The magnitude of its (\*)** “contact” form is found by multiplying that of the normal force by a constant symbolized mu [myoo]. For 10 points—name this nonconservative force that opposes motion.

answer: friction(al) (force) (accept contact friction; prompt on “viscous (forces)” or “viscosity” before “Amontons”; do not accept or prompt on “dry friction” or “fluid friction” or “static friction” or “kinetic friction”)

<SCI, PHYS>

15. **This character's disloyal friend William Dane suggests that a “visitation of Satan” is responsible for this character's recurring bouts of catalepsy** [“CAT”-uh-lep-see]**. A false accusation of theft causes this man to leave Lantern Yard. The aristocrat Dunstan (\*)** Cass steals gold from this man, who decides to raise an abandoned baby girl he names Eppie. For 10 points—what “weaver of Raveloe” [RAV-uh-loh] is the title character of a novel by George Eliot?

answer: Silas Marner (accept either underlined portion; accept Silas Marner: The Weaver of Raveloe)

<LIT, BRIT>

16. **Historians are uncertain whether this person died in 1812 at Fort Manuel or in 1884 in Wyoming, in part because she was not the only wife of Toussaint Charbonneau** [too-SAHN shar-buh-NOH]**. This woman gave birth to her son Jean Baptiste and reunited with her brother Cameahwait** [kuh-MAY-uh-“wait”] **while (\*)** guiding a journey through the Rocky Mountains. For 10 points—name this woman who accompanied an exploration of the Louisiana Purchase led by Lewis and Clark.

answer: Sacajawea [SAH-kuh-juh-WEE-uh] (or Sacagawea or Sakakawea)

<HIST, AMER>

18. **This man was advised by Polydamas to hold off an attack on enemy ships after an eagle dropped a red serpent among this man's troops. In one account, this man's infant son was thrown off a city wall by Neoptolemus** [nee-ahp-TAH-luh-muss]**. This father of Astyanax** [ast-EE-an-ax] **was chased around the walls of his city three times by his killer, who then (\*)** dragged his body through the dirt. For 10 points—name this Trojan prince who was slain by Achilles [uh-“KILL”-eez].

answer: Hector

<LIT, OTHER>

19. **This author lived for two years in Bali with Gregory Bateson to conduct fieldwork for the book *Balinese Character*. This author opined that cultural homogeneity and lack of taboos helped create a culture of free love and deferred marriages in a controversial 1928 work that was based on (\*)** her fieldwork in Polynesia. *Coming of Age in Samoa* was written by—for 10 points—what female American anthropologist?

answer: Margaret Mead

<RMPSS, SOC SCI>

20. **In about 20 percent of people, this organ contains a benign cyst known as a Rathke's** [RATH-kee's] **cyst. Conditions that result from overactivity of this organ include Cushing's syndrome and acromegaly** [AK-roh-MEG-uh-lee]**. This part of the brain is connected to the hypothalamus** [“hi”-poh-THAL-ah-muss] **via a portal system. Its numerous cell types include the (\*)** gonadotropes [goh-NAD-oh-trohpz] that release FSH [“F-S-H”] and LH [“L-H”] to regulate sexual development. For 10 points—name this so-called “master gland.”

answer: (anterior) pituitary [pih-TOO-ih-tair-ee] gland (or hypophyseal gland or hypophysis cerebri; accept adenohypophysis; prompt on “brain” before “hypothalamus”)

<SCI, BIO>

21. **This country employed the Me** [M-E] **163 Komet, the only rocket-powered fighter in history. The ”buzz bomb” was a nickname for a pulsejet-powered, auto-piloted ”flying bomb” designed by this country, which deployed Junkers Stuka** [YUN-kers STOO-kah] **dive bombers as part of its Condor Legion in the Spanish Civil War. (\*)** Wernher von Braun designed the V-2 rocket for this country. For 10 points—name this country whose airforce was the Luftwaffe [LOOFT-vah-fuh].

answer: (Nazi) Germany (or Deutschland or Third Reich or Deutsches Reich or Drittes Reich)

<HIST, EURO>

22. **A 2016 lawsuit accused this company of using its quarterly review system to illegally lay off over 1,100 employees without giving 60 days' notice. Accusations of spending 7 million dollars on a “Great Gatsby” party hounded its CEO, (\*)** Marissa Mayer, who in February 2016 announced it lost 4.4 billion in the previous quarter. Flickr [“flicker”] and Tumblr [“tumbler”] are owned by—for 10 points—what company whose search engine competes with Google?

answer: Yahoo (Inc.)

<CE, CE>

23. **The Gospel of John locates this figure at “Aenon** [EE-nahn] **near Salim,” and both Matthew and Mark identify him with Elijah. This man, who subsisted solely on locusts and honey, predicted that “he who is coming after me” would use the Holy Spirit and fire to perform an action that he accomplished with the (\*)** water of the Jordan River. For 10 points—name this biblical prophet who immersed Jesus before being executed by King Herod.

answer: Saint John the Baptist (or Ioannes ho Baptistes or Ioannes ho Baptizon; prompt on ”(Saint) John” or “Ioannes”)

<RMPSS, REL>

24. **The fifth of these elements was created by bombarding bismuth-209 with alpha particles. In the first noble gas compound, the noble gas bonded to atoms of a member of this group. Another element from this group bonds to potassium in Lugol's** [LOO-gohl's] **reagent; a deficiency of that element causes (\*)** goiter. For 10 points—name this group whose members each have seven valence [VAY-lints] electrons, and which includes chlorine and iodine.

answer: halogens (or group 17; prompt on “VIIA” [“7-A”] or “VIIB” [“7-B”]; do not accept or prompt on “VII” [“7”])

<SCI, CHEM>

Bonuses

1. For 10 points each—answer the following about the mechanisms of various keyboard instruments:

A. Depressing a key on a harpsichord causes a mechanism to perform this action on the string. A cellist does this to their instrument's strings when playing pizzicato.

answer: pluck(ing)

B. Depressing a key on this instrument causes a hammer to strike a resonant metal bar rather than a string. Tchaikovsky used it in his “Dance of the Sugar Plum Fairy.”

answer: celesta [suh-LES-tuh] or celeste [suh-LEST]

C. A carillon [KAIR-uh-lahn] player uses their feet and fists to depress wooden levers that operate the ”clappers” of at least 23 of these tuned bronze objects.

answer: bells (do not accept or prompt on “chime(s)”)

<FA, AUDIO>

2. A 2008 translation of the Swedish novel *Men Who Hate Women* was released under this English title. For 10 points each—

A. Give this English title that refers to one of the body modifications on the hacker Lisbeth Salander [LIZ-bet sah-LAHN-dair].

answer: The Girl with the Dragon Tattoo

B. This author, who died in 2004, wrote *The Girl with the Dragon Tattoo* as the first novel in his *Millennium* series.

answer: Stieg [steeg] Larsson (or Karl Stig-Erland Larsson)

C. Larsson's estate authorized David Lagercrantz to write this fourth novel in the *Millennium* series, which was released in 2015.

answer: The Girl in the Spider's Web (or Det som inte dödar oss)

<LIT, AMER>

3. In 732 this Frankish Mayor of the Palace fought off a Muslim invasion of Gaul at the Battle of Tours. For 10 points each—

A. Name this founder of the Carolingian [“care”-uh-LIN-jee-un] Dynasty, nicknamed “the Hammer.”

answer: Charles Martel (or Charles the Hammer)

B. Charles Martel was the father of this first Carolingian king, who overthrew the last Merovingian [meh-roh-VIN-jee-un] king Childeric III with the support of Pope Zachary.

answer: Pepin the Short (or Pepin the Younger; or Pepin III or Pepin le Bref; accept Pippin in place of “Pepin”)

C. Charles Martel was the grandfather of this Frankish king who was crowned Holy Roman Emperor in 800.

answer: Charlemagne [SHAR-luh-“main”] (or Charles the Great or Charles I or Carolus Magnus or Karl der Grosse; prompt on “Charles”)

<HIST, EURO>

4. This peninsula's namesake national park contains one of the few temperate rain forests in the continental U.S. For 10 points each—

A. Name this mountainous, forested peninsula that is south of the Strait of Juan de Fuca [WAHN deh FOO-kuh] and west of the Puget Sound.

answer: Olympic Peninsula (accept Olympic National Park)

B. The Olympic Peninsula lies across the Puget [PYOO-jet] Sound from this major port city, the most populous in the state of Washington.

answer: Seattle, Washington

C. Olympic National Park houses a large herd of the Roosevelt variety of these horned mammals, among the largest deer species in the U.S. There exists debate over how this species is related to the similar Eurasian red deer.

answer: elk (accept Roosevelt elk)

<GEO, GEO>

5. If a polynomial's degree is this number, it is called quartic [“QUART”-ik]. For 10 points each—

A. Give this number. It is also the highest degree for which a single-variable polynomial can always be solved in terms of radicals.

answer: 4 (accept fourth-degree or degree four)

B. According to the Stefan-Boltzmann [STEH-fahn BOLTS-min] law, the amount of energy a black body releases is proportional to the fourth power of this quantity, and its maximum wavelength is inversely proportional to it.

answer: (absolute) temperature

C. This measure of the “tailedness” or “peakedness” of a probability distribution is the fourth moment about the mean divided by sigma to the fourth power.

answer: kurtosis [kur-TOH-siss]

<SCI, OTHER>

6. For 10 points each—name these rulers who had problems with the sea:

A. According to Herodotus, this king ordered that the Hellespont be whipped before his Persian troops crossed it to fight the Greeks at Thermopylae and Salamis.

answer: Xerxes I (or Xerxes the Great; accept Ahasuerus or Achashverosh; prompt on “Xerxes”)

B. This insane Roman emperor declared war on the sea and appointed his horse to serve as consul before the Praetorian Guard killed him. He was succeeded by Claudius.

answer: Caligula [kuh-LIG-yuh-luh] (or Gaius Caesar or Gaius Julius Caesar Augustus Germanicus; prompt on “Gaius”)

C. This Danish king of England was said to have ordered the tide to stand still, thus proving the weakness of mortal kings when a wave hit him. His sons included Harold Harefoot.

answer: Canute (or Cnut the Great or Knútr inn ríki; do not accept or prompt on “Harthcanute”)

<HIST, OTHER>

7. In one story from this collection, the tramp Soapy tries to get arrested so he can spend the winter in jail. For 10 points each—

A. Name this collection that includes “The Cop and the Anthem.” Its title refers to the population of New York City at the time this book was published.

answer: The Four Million

B. In this story from *The Four Million*, Jim and Della sell their most precious possessions to buy each other Christmas presents.

answer: The Gift of the Magi [MAY-jye] (or Gifts of the Magi)

C. This author of *The Four Million* made frequent use of ironic twist endings.

answer: O. Henry (or William Sydney Porter)

<LIT, AMER>

8. This biological domain can be split in two based on how organisms in it respond to the Gram stain. For 10 points each—

A. Name this domain that contains single-cell organisms such as *Escherichia* [esh-uh-REE-kee-uh] *coli*.

answer: bacteria

B. Gram-positive bacteria have an especially thick layer of this polymer in the cell wall.

answer: peptidoglycan (or murein)

C. Upon the completion of the Gram stain, Gram-positive bacteria are this color, because they retain the “crystal” dye of this color.

answer: violet (accept crystal violet; accept purple)

<SCI, BIO>

9. After being dismissed from the Royal Navy, Thomas Cochrane took command of this country's navy. For 10 points each—

A. Name this country that secured its independence from Spain despite a feud between rebel leaders José Carrera [ho-SAY cah-RARE-ah] and Bernardo O'Higgins.

answer: (Republic of) Chile [CHEE-lay] (or República de Chile)

B. The Chilean navy helped this Argentine general begin the liberation of Peru.

answer: José de San Martín [hoh-SAY day SAN mar-TEEN] (or José Francisco de San Martín y Matorras)

C. San Martín met Simon Bolívar [see-MOHN boh-LEE-var] in Guayaquil [GWYE-ah-KEEL], now the most populous city in this country. The Battle of Pichincha [pee-CHEEN-chuh] took place near this country's capital of Quito [KEE-toh].

answer: (Republic of) Ecuador (or República del Ecuador)

<HIST, WORLD>

10. For 10 points each—answer the following about paintings of railroads:

A. A rabbit flees a locomotive crossing a bridge on the “Great Western Railway” in this J. M. W. Turner painting.

answer: Rain, Steam, and Speed(: The Great Western Railway)

B. This Impressionist painted twelve scenes of Paris' Gare Saint-Lazare [GAR sahn lah-ZAR] train station, a forerunner of his series of depictions of haystacks and water lilies.

answer: Claude Monet [moh-NAY] (or Oscar-Claude Monet)

C. This painter's *House by the Railroad* is a lonely scene with no people or trains. He showed a young woman staring into a cup of coffee by herself in *Automat*.

answer: Edward Hopper

<FA, VISUAL>

11. This expatriate English author condemned the 1849 entry of Austrian troops into Florence in her poem *Casa Guidi Windows* [KAH-zuh GWEE-dee “windows”]. For 10 points each—

A. Name this author who described a woman's struggle to pursue a literary career in the epic *Aurora Leigh*.

answer: Elizabeth Barrett Browning (or Elizabeth Barrett Moulton Barrett)

B. Elizabeth Barrett Browning wrote that she felt this emotion “freely, as men strive for right” in a sonnet that “count[s] the ways” this emotion is experienced.

answer: love (accept loving; accept How do I love thee? Let me count the ways)

C. “How do I love thee? Let me count the ways” is the 43rd poem in this 1850 Browning collection, whose title refers to her nickname.

answer: Sonnets from the Portuguese [One of Robert Browning's endearments for Elizabeth was “my little Portuguese.”]

<LIT, BRIT>

12. For 10 points each—name these places in which comedians have gotten involved in politics:

A. In October 2015 comedian Jimmy Morales was elected the next president of this Central American country, following the arrest of Otto Pérez Molina [moh-LEE-nah] on corruption charges.

answer: (Republic of) Guatemala (or República de Guatemala)

B. This European country's Five Star Movement, led by comedian Beppe Grillo, has opposed several policies of current prime minister Matteo Renzi.

answer: Italy (or Italian Republic or Italia or Repubblica Italiana)

C. In 2013 Elizabeth Colbert [KOL-burt] Busch—the sister of Stephen Colbert [“coal-bear”]—lost a special election for a U.S. House seat from this state to its former governor, Mark Sanford.

answer: South Carolina

<CE, CE>

13. This formula states that the area of a cyclic quadrilateral equals the square root of the product of the differences of the semiperimeter minus each of the four sides' lengths. For 10 points each—

A. Name this formula used to find the area of cyclic quadrilaterals.

answer: Brahmagupta's formula

B. Brahmagupta's formula can be proved using Heron's formula, which is a somewhat similar formula for the area of this kind of shape.

answer: triangles

C. A quadrilateral is cyclic and thus subject to Brahmagupta's formula if and only if the measures of each pair of opposite angles add up to 180 degrees, a relationship known by this term.

answer: supplementary angles or supplements (do not accept or prompt on answers containing “complement”)

<SCI, OTHER>

14. During the 1890s, the United Mine Workers advocated for a shorter working day. For 10 points each—

A. The union supported a working day of this many hours, which was also the focus of the first May Day Parade in 1886.

answer: 8 (accept eight hours or eight hour day)

B. In 1902 this president intervened in the Pennsylvania anthracite coal strike called by the UMW. It was the first time a president personally intervened in a labor dispute.

answer: Theodore Roosevelt (or Teddy Roosevelt or TR; prompt on “Roosevelt”)

C. In 1919 over 400,000 members of the union went on strike despite the opposition of this attorney general, whose namesake “raids” took place during the “Red Scare.”

answer: A(lexander) Mitchell Palmer (accept Palmer Raids)

<HIST, AMER>

15. For 10 points each—answer the following about bodies of water in and around Scandinavia:

A. A Norwegian word names these narrow inlets of the sea along coasts, with high cliffs surrounding the inlet. Many of them define Norway's northwest coast.

answer: fjords (or fiords)

B. This wide strait with a bend separates the southern coasts of Norway and Sweden from the Jutland peninsula of Denmark. The Kattegat [KAT-ih-gat] is a smaller strait south of it.

answer: Skagerrak [SKAG-ih-RAK]

C. In the 1980s, the Swedish government started a program to dump this substance into the country's lakes to neutralize the effects of pervasive acid rain.

answer: lime (or calcium oxide; accept limestone or calcium carbonate, as the Swedish program uses that as well)

<GEO, GEO>

16. Various alter egos in this comic strip include Stupendous Man and Spaceman Spiff. For 10 points each—

A. Name this comic strip centered on the adventures of a six-year-old boy and his stuffed tiger.

answer: Calvin and Hobbes

B. *Calvin and Hobbes* was created by this reclusive American cartoonist who also created the poster for the 2014 documentary *Stripped*.

answer: Bill Watterson

C. In 2014, Watterson drew guest illustrations for this Stephan Pastis comic strip that features anthropomorphic characters such as Rat, Goat, Pig, and Guard Duck.

answer: Pearls Before Swine

<MISC., MISC.>

17. For 10 points each—name these 19th-century novels that describe the Battle of Waterloo:

A. Fabrizio [fah-BREED-zee-oh] del Dongo wanders on to the battlefield of Waterloo at the beginning of this novel by Stendhal [stawn-DAHL].

answer: The Charterhouse of Parma (or La Chartreuse de Parme)

B. 19 chapters of this Victor Hugo novel are devoted to Waterloo, where Thénardier [tay-nard-YAY] has a chance meeting with Colonel Pontmercy [“pawn-mare-SEE”].

answer: Les Misérables [lay mee-zay-RAHB] (or The Miserable Ones or The Wretched Poor; do not accept or prompt on “Les Miz”)

C. George Osborne dies at Waterloo after propositioning Becky Sharp in this novel by William Makepeace Thackeray.

answer: Vanity Fair (or Vanity Fair: A Novel without a Hero)

<LIT, EURO>

18. In a January 2016 endorsement speech, this former politician declared “it's time to drill, baby, drill down.” For 10 points each—

A. Name this Tea Party leader who resigned as governor in 2009.

answer: Sarah (Louise) Palin [PAY-lin] (or Sarah Louise Heath)

B. Palin endorsed this Republican presidential candidate, whom she praised for respecting “us Joe Six-Packs.”

answer: Donald J(ohn) Trump (prompt on ”(the) Donald”)

C. At a Trump rally, Palin blamed President Obama for the domestic violence committed by this man, her son.

answer: Track (CJ) Palin (prompt on “Palin”; do not accept or prompt on “Trig (Paxson Van Palin)”)

<CE, CE>

19. It is defined as zero for any element's most stable allotrope in its standard state. For 10 points each—

A. Identify this thermodynamic quantity often abbreviated delta *H*f [“H sub F”], the amount of heat released when a substance is synthesized from its elements.

answer: (standard) enthalpy of formation [EN-thul-pee] or (standard) heat of formation (prompt on partial answer)

B. This law of thermodynamics states that if reaction A and reaction B add up to form reaction C, then the heats of formation for each reaction can be added to give the heat of formation for reaction C.

answer: Hess's law (of constant heat summation)

C. As of 2016 IUPAC [“EYE-you-pack”] recommends that the standard state be defined in terms of one of these units of pressure equal to 100,000 pascals [pass-KALS].

answer: bars

<SCI, CHEM>

20. This archaeological site, which is comprised of four geologic beds, features chipped pebbles that are the earliest known stone tools. For 10 points each—

A. Name this steep-sided African ravine in the Great Rift Valley where Mary and Louis Leakey discovered *Homo habilis* [HOH-moh HAB-ih-liss] fossils.

answer: Olduvai [OHL-doo-vye] Gorge (or Oldupai Gorge)

B. *Homo habilis* may have co-existed with this other hominid species, whose name is Latin for “upright man.”

answer: Homo erectus

C. In addition to *Homo habilis*, the Leakey family also discovered this species at Olduvai Gorge. It was originally classified as *Australopithecus* [aw-STRAY-loh-PITH-eh-kuss] but is now considered to be a member of the *Paranthropus* genus.

answer: Paranthropus boisei [boy-SAY]

<SCI, BIO>

21. For 10 points each—answer the following about Catholic law concerning priests:

A. This requirement mandates that all priests refrain from marriage and sexual activity.

answer: clerical celibacy (do not accept or prompt on “abstinence”)

B. There are seven of these major rituals, such as baptism and the Eucharist, in Catholicism; the performance of many is restricted to priests alone, though others can be administered by deacons.

answer: sacraments

C. This is the name for the process of dismissing a priest from the clergy.

answer: laicization (accept defrocking or unfrocking)

<RMPSS, REL>

22. For 10 points each—answer the following about the Chinese New Year:

A. Unlike the Gregorian calendar, the Chinese calendar is based on the movement of these *two* astronomical objects.

answer: Sun (or Sol)

(Earth's) Moon (or Luna) (do not accept or prompt on partial answers)

B. February 8, 2016 was the first day of the new year of this animal of the Chinese zodiac. Sun Wukong, the king of these animals, appears in the Chinese novel *Journey to the West*.

answer: monkey (accept Year of the Monkey or monkey king)

C. The celebration of the Chinese New Year ends with a festival named for these objects. They are often made of paper or red silk, and may be decorated with riddles.

answer: lanterns (accept Lantern Festival; do not accept or prompt on “lamp(s)”)

<MISC., MISC.>

23. Pencil and paper ready. Bob rolls two fair, six-sided dice. For 10 points each—

A. What is the probability that the *sum* of the two results is an odd number?

answer: 1/2 or 0.50 or 50% or 1 in 2 [A odd sum requires adding together an odd value and an even value. Regardless of the parity of the first die, there are 3 values out of 6 on the second die with the required parity to produce an odd sum; 3/6 = 1/2.]

B. What is the probability that the *product* of the two results is odd?

answer: 1/4 or 0.25 or 25% or 1 in 4 [An odd product requires both values to be odd; since each die has a 1 in 2 chance of producing an odd value, the overall probability is (1/2) × (1/2) = 1/4.]

C. What is the probability that the *difference* of the two results is zero?

answer: 1/6 or 1 in 6 [A difference of zero requires that the results be the same; regardless of the outcome of the first die, there is a 1/6th chance the second die matches it.]

<SCI, OTHER>

24. For 10 points each—answer the following about American political machines:

A. A so-called “regency” named after this state capital was opposed by Thurlow Weed. It came to an end in the 1830s after William Marcy lost a gubernatorial race.

answer: Albany (accept Albany Regency)

B. This leading member of the Albany Regency succeeded Andrew Jackson as president. The Panic of 1837 took place during his administration.

answer: Martin Van Buren

C. Fernando Wood and “Boss” Tweed were leaders of this political machine that controlled New York City throughout much of the 19th century.

answer: Tammany Hall (accept Society of St. Tammany or Sons of St. Tammany or Columbian Order or Tammany Society; prompt on “Tammany”)

<HIST, AMER>