1. **This character claims that if others aren't “knocked out and dazzled and slightly intimidated” by him, he doesn't “feel good” about himself. He promises to go “shopping” every day for fellow residents of a new underground village. Badger helps this character create tunnels to raid the (\*)** farms of Bunce, Bean, and Boggis, who shoot off this character's tail. Roald [ROH-ahl] Dahl wrote a book about—for 10 points—what “fantastic” vulpine?

answer: Fantastic Mr. Fox

<LIT, BRIT>

2. **This law can be applied to any temperature *T* by taking the definite integral of the quantity *C*p *dT*** [“C sub P D-T”] **divided by *T* over the interval from zero to *T*. Walther Nernst developed this law via his notion that no finite number of steps can ever achieve an isotherm** [“EYE-so”-thurm] **of *T* equals zero. At (\*)** absolute zero, the entropy of a perfect crystal is also zero, according to—for 10 points—which law of thermodynamics?

answer: third law of thermodynamics (accept third law after “thermodynamics”)

<SCI, CHEM>

3. **A man in this work says that he doesn't “believe in free love” when denying Mrs. Potiphar's advances. Characters in it sing of “one more angel in heaven” after faking the protagonist's death. Its protagonist sings that “Children of Israel / Are never alone” in the song “Close Every Door,” and he sings of a (\*)** multi-hued object in “Any Dream Will Do.” For 10 points—name this Andrew Lloyd Webber musical about a son of Jacob.

answer: Joseph and the Amazing Technicolor Dreamcoat (prompt on “Joseph”)

<FA, OTHER>

4. **During this period, the Recreation and Amusement Association operated for four months. Unit 731 was granted immunity from war crimes trials by SCAP** [skap] **during this period. Beate** [bay-AH-tay] **Gordon was commissioned to write a new constitution forbidding war during this period, which ended with the Treaty of (\*)** San Francisco in 1951. For 10 points—name this six-year period during which Douglas MacArthur governed a defeated Axis power.

answer: United States occupation of Japan (or Allied occupation of Japan; accept answers mentioning American or Allied military occupation or occupying or administering and Japan)

<HIST, WORLD>

5. **This object contains a formation called a ”mountain in a moat.” James Christy discovered this astronomical body after noticing bulges on several photographs. Since it is much larger than Kerberos** [KUR-buh-russ]**, Styx** [“sticks”]**, Nix** [“nicks”] **and Hydra, some people advocate considering this body to be part of a (\*)** binary with the dwarf planet it orbits. For 10 points—identify this moon that shares its name with a ferryman of the dead, and orbits Pluto.

answer: Charon [“SHARE”-en] (or (134340) Pluto I)

<SCI, OTHER>

6. **This poem compares its subject to a ”glow-worm golden / in a dell of dew,” and a ”rose embower'd / in its own green leaves.” The speaker of this poem wishes to experience “half the gladness” known to the title creature. This poem's subject springs from the earth “like a cloud of fire,” and sings ”hymns unbidden.” The exclamation (\*)** “hail to thee, blithe Spirit!” begins—for 10 points—what Percy Bysshe Shelley poem about a songbird?

answer: To a Skylark

<LIT, BRIT>

7. **This river is threatened by illegal stone mining near Haridwar** [har-eed-war]**. The mythical Sarasvati** [sair-ah-SVAH-tee] **River supposedly joins this river at its confluence with the Yamuna** [YUH-muh-nuh]**. Cremation ashes are often released into this river at pilgrimage sites such as (\*)** Varanasi [vuh-RAH-nuh-see]. During the annual Kumbh Mela [KOOM-buh MEH-lah] festival, over 100 million pilgrims bathe in this river's sacred waters. For 10 points—name this Indian river revered by Hindus.

answer: Ganges River (or Ganga)

<GEO, GEO>

8. **This human organ is the source of cumulus** [KYOOM-yoo-lus] **cells, which start out as specialized granulosa** [gran-yoo-LOH-suh] **cells. While the theca** [THEE-kuh] **cells in this organ form luteal** [LOO-tee-ul] **cells, the granulosa cells form the corpus luteum** [KOR-pus LOO-tee-um]**. (\*)** Follicle-stimulating hormone stimulates these glands to produce estrogen, which helps regulate the menstrual cycle. For 10 points—name these abdominal glands located beneath the Fallopian [fuh-LOH-pee-un] tubes that produce eggs.

answer: ovaries or ovary

<SCI, BIO>

9. **Two years after the presidential election of this year, the man who won it survived an assassination attempt at Blair House by Puerto Rican nationalists. In this year California governor Earl Warren was the Republican vice presidential nominee, and the Dixiecrats nominated Strom Thurmond. The *Chicago (\*)*** *Daily Tribune* incorrectly announced the winner of—for 10 points—what election that Thomas Dewey lost to Harry Truman?

answer: (U.S. presidential election of) 1948

<HIST, AMER>

10. **The first building generally considered to be this kind was William Le Baron Jenney's Home Insurance Building in Chicago. Early ones were often designed in three parts, modeled after ancient columns: a base, a top portion, and a middle that could be (\*)** repeated many times. These buildings were made practical in the late 19th century, partly by the invention of elevators. For 10 points—name this type of tall building.

answer: skyscrapers (accept answers that refer to a weight-bearing frame or metal frame building; prompt on descriptive answers like “tall buildings”)

<FA, OTHER>

11. **Repeated inverted catenaries** [“CAT”-uh-nair-eez] **are conducive to this type of motion with a square. Physics problems are often posed about objects that are undergoing this condition without slipping. The purpose of (\*)** ball bearings is to reduce the friction associated with this type of motion. Rotation combined with translation is—for 10 points—what type of motion, which balls experience when released form the top of an incline?

answer: rolling (prompt on “rotating” or “rotation”; do not accept or prompt on “revolving” or “revolve”)

<SCI, PHYS>

12. **In August 2010, this athlete canceled the rest of his schedule for the year and missed two Diamond League appearances. At the 2013 Golden Gala, he lost an event to Justin Gatlin by one one-hundredth of a second. This man claimed he “wasn't tired at all” during a (\*)** 2008 performance in which he visibly slowed but still finished in 9.69 seconds in the 100-meter dash. For 10 points—name this record-holding Jamaican sprinter.

answer: Usain (St. Leo) Bolt [YOO-sayn BOLT]

<TRASH, SPORTS>

13. **A queen from this family served as regent for Francis II** [“the second”] **and challenged the influence of the Guise** [gheez] **family. This family was temporarily driven from power by the invasion of Charles VIII [“the 8th”] and the rise of the prophet Savonarola** [sah-vaw-nuh-ROH-luh]**. Pope (\*)** Leo X [“the 10th”] was from this family, whose other members included Cosimo the Elder and Lorenzo the Magnificent. For 10 points—name this Italian family that ruled Florence for much of the Renaissance.

answer: Medici [MEH-dih-chee or mee-DEE-chee] family or de' Medicis (or Médicis)

<HIST, EURO>

14. **In January 2016 Sri Lankan officials destroyed 3 million dollars' worth of this material and apologized for its procurement. That same month, Yahoo's Japanese offices were criticized for profiting from auctions of this material, which some conservationists stain pink or other colors besides (\*)** white to dissuade hunters from killing the animals that provide it. For 10 points—name this material poached from elephants.

answer: ivory (prompt on ”(elephant) tusk(s)”)

<CE, CE>

15. **This color appears in the name of a crime-solving dining club served by waiter Henry Jackson, created by Isaac Asimov. This color partly titles a song in which Rita Ora sings “I'm gonna love ya / Until you hate me.” This color names several North American varieties of the genus Latrodectus** [LAT-roh-DEK-tuss]**, whose abdomens display a red (\*)** hourglass. For 10 points—name this color in the title of an Iggy Azalea song named for widow spiders.

answer: black (accept the Black Widowers or Black Widow (spiders))

<MISC., MISC.>

16. **Apollonius's theorem relates side lengths to the length of these segments. Since each of these segments divides a shape into two parts of equal area, drawing all of them leaves six pieces of equal area. These segments meet at a point two-thirds of the way along each of them, called the (\*)** centroid of a triangle. For 10 points—name these segments that connect a vertex of a triangle to the midpoint of the opposite side.

answer: median

<SCI, OTHER>

17. **In 1302 part of this modern-day country briefly gained independence from Philip IV** [“the fourth”] **of France by winning the Battle of the Golden Spurs near its city of Bruges** [BROOJ]**. In the 19th century this country created the *Force Publique*** [pooh-bleek] **after its king received the entire (\*)** Congo as a personal colony. French-speaking Wallonia and Dutch-speaking Flanders are the two main regions of—for 10 points—what country whose capital is Brussels?

answer: (Kingdom of) Belgium (or Royaume de Belgique or Koninkrijk België)

<HIST, EURO>

18. **This man's views on the absolute sovereignty of God in salvation formed the basis of the *Gallic Confession*. This man's followers supported the doctrine of limited atonement at the Synod of Dort. Unlike Martin Luther, he believed that God actively chose people for both heaven *and* hell via “double predestination.” (\*)** *Institutes of the Christian Religion* was written by—for 10 points—what Protestant leader based in Geneva?

answer: John Calvin

<HIST, EURO>

19. **This character jokes that his middle name is “Vitamin” because he drinks nutritious malted milk. He is told that he is in danger of dying for “some highly unworthy cause” during a conversation with his former English teacher, Mr. (\*)** Antolini [ann-toh-LEE-nee]. This teenager considers running away from New York, but instead returns home with his sister Phoebe [FEE-bee]. For 10 points—name this protagonist of J. D. Salinger's *The Catcher in the Rye*.

answer: Holden Caulfield (accept either underlined portion)

<LIT, AMER>

20. **After an event in this city, journalist Kerry Sanders was criticized for showing private photos and ID cards. Enrique Marquez Jr. was arrested for helping plan an event in this city that occurred in its Inland Regional Center and targeted employees of the Department of (\*)** Public Health, where the male perpetrator worked. Syed [sy-ED] Farook and Tashfeen Malik carried out a terrorist attack in—for 10 points—what California city?

answer: San Bernardino, California

<CE, CE>

21. **In this province, the blue-green Moraine Lake sits within the Valley of the Ten Peaks. The world's tallest teepee was built in this province's city of Medicine Hat for the 1988 Winter Olympics. Its Columbia Icefield, the source of the Athabasca** [aa-thuh-BAS-kuh] **River, lies within its Jasper and (\*)** Banff National Parks, near its western border with British Columbia. For 10 points—name this Canadian province that contains Calgary.

answer: Alberta

<GEO, GEO>

22. **Claudette Colvin's pregnancy caused this event's leaders to seek another figurehead for it. To spread awareness of this event, Ralph Abernathy and others started an “Improvement Association.” The court case *Browder v. Gayle* brought an end to this event that began after James Blake ordered a woman to move to the (\*)** back. The arrest of Rosa Parks preceded—for 10 points—what boycott of public transport in an Alabama city?

answer: Montgomery bus boycott (accept answers that indicate a boycott of city buses or public transport in Montgomery, Alabama; accept Montgomery bus boycott after “boycott”; prompt on partial answers)

<HIST, AMER>

23. **In one novel by this author, a trio of publishers use Belbo's computer Abulafia** [AB-yoo-LAFF-ee-ah] **to invent a conspiracy theory known as “The Plan.” An “aedificum”** [ay-DEE-fee-koom] **contains the second book of Aristotle's *Poetics* in another novel by this author, which depicts Adso's and William's attempts to solve a series of (\*)** murders at a 14th-century monastery. For 10 points—name this Italian author of *Foucault's Pendulum* [FOO-koh'z “pendulum”] and *The Name of the Rose*.

answer: Umberto Eco [“echo”]

<LIT, EURO>

Bonuses

1. A former prime minister of a Commonwealth nation dismissed emissions trading as an attempt to regulate an “invisible substance.” For 10 points each—

A. Name that former prime minister, who was replaced by Malcolm Turnbull in September 2015.

answer: (Anthony John) Tony Abbott

B. Turnbull is now prime minister of this country, whose Liberal Party he leads.

answer: Australia (or Commonwealth of Australia)

C. In November 2015 Turnbull agreed to begin repatriating New Zealanders who had been detained along with other refugees at an immigration facility on this Australian island off the coast of Indonesia.

answer: (Territory of) Christmas Island

<CE, CE>

2. Pelopidas [puh-LAH-puh-duss] was the leader of this elite infantry unit, which defeated a larger Spartan force at Tegyra [teh-“GEAR”-uh]. For 10 points each—

A. Name this group of 150 pairs of Theban [THEE-bin] soldiers, which routed the Spartans at the Battle of Leuctra [LOOK-truh].

answer: Sacred Band of Thebes (or Hieros Lokhos)

B. This man defeated the Thebans and destroyed the Sacred Band at the 338 Battle of Chaeronea [“care”-uh-NEE-uh]. Two years later he was assassinated by Pausanias of Orestis at the wedding of this man's daughter by Olympias.

answer: Philip II of Macedon (pompt on “Philip (of Macedon)”)

C. Part of the Macedonians' [MAA-suh-DOH-nee-unz] success at Chaeronea has been attributed to their use of the *sarissa*, one of these melee weapons. The pike is a variant of this simple weapon with a longer shaft.

answer: spears (do not accept or prompt on “lance” or “javelin”)

<HIST, OTHER>

3. The word ”mayonnaise” is thought to have originated from the city of Mahón on this archipelago. For 10 points each—

A. Name this archipelago that includes the island of Ibiza [ih-BEE-zuh], which is famous for its nightclubs, as well as its largest island of Majorca [“my-YOUR”-kuh].

answer: Balearic Islands

B. The Balearic Islands are part of this European nation, whose capital is Madrid.

answer: (Kingdom of) Spain (or Reino de España)

C. Spain also controls this other archipelago off the coast of Africa, whose islands include Tenerife [ten-uh-REEF-ay]. Its name refers to a native population of animals presumed to be dogs.

answer: Canary Islands (or Canaries or Islas Canarias)

<GEO, GEO>

4. The story of these characters is based on real historical people who killed Kira Yoshinaka [KEE-rah YO-SHEE-nah-kah] in January 1703. For 10 points each—

A. Give the numerical name for this group of leaderless samurai who avenged the forced suicide of their former daimyo, inspiring numerous Japanese literary depictions.

answer: 47 Ronin [roh-nihn] (or Shi-ju-shichi-shi; prompt on partial answer)

B. The story of the 47 Ronin was often portrayed in this heavily dance- and makeup-dependent form of Japanese drama, which eclipsed the Noh in popularity before women were banned from it in 1629.

answer: kabuki [kah-boo-kee]

C. The kabuki play about the 47 Ronin *Treasury of Loyal Retainers* was adapted from an earlier bunraku play, which, like all bunraku [boon-rah-koo], used these handheld objects in place of actors.

answer: puppets

<LIT, OTHER>

5. Several ruins at this site, including the Room of the Three Windows, comprise a temple complex to Inti [IN-tee]. For 10 points each—

A. Name this site, surrounded on three sides by the Urubamba [oo-roo-BAHM-buh] River.

answer: Machu Picchu [MAH-choo PEE-choo]

B. The Incan ruins at Machu Picchu and Cuzco [KOOZ-koh] are found in this South American country.

answer: (Republic of) Peru (or República del Perú)

C. This Yale University professor is credited with the rediscovery of Machu Picchu, which he found on a trip that led him to also locate Vitcos [vit-KOHS] and Vilcabamba [VIL-kuh-BAHM-buh].

answer: Hiram Bingham [HYE-rum BING-um] (III)

<GEO, GEO>

6. After the death of his girlfriend Jane, this character becomes involved with Andrea, whom he meets at a Narcotics Anonymous meeting. For 10 points each—

A. Name this TV character, who is mentored by his former science teacher in manufacturing crystal meth.

answer: Jesse (Bruce) Pinkman (accept either underlined portion)

B. Jesse Pinkman was played by Aaron Paul on this TV series that aired on AMC.

answer: Breaking Bad

C. Prior to finding success as an actor, Aaron Paul won a desk on this game show after screaming “Twelve hundred bucks” at its then-host, Bob Barker.

answer: The Price is Right [Paul eventually made it to the Showcase Showdown, where he lost after overbidding on his showcase by only $132.]

<TRASH, POP CULT>

7. A fashionable women's club called the “Jolly Seventeen” organizes weekly bridge games in this novel. For 10 points each—

A. Name this novel in which Carol Kennicott comes to terms with life in Gopher Prairie.

answer: Main Street

B. This author of *Main Street* based Gopher Prairie on his hometown of Sauk Centre, Minnesota. He would later decline a Pulitzer [“PULL-it-sir”] Prize for his satire of the medical profession, *Arrowsmith*.

answer: (Harry) Sinclair Lewis

C. This Lewis novel depicts a hypocritical businessman from Zenith, whose only respite is camping in Maine with Paul Riesling.

answer: Babbitt

<LIT, AMER>

8. For 10 points each—answer the following about California State Route 37, which is in the north of the Bay Area:

A. It is the namesake of the sixth studio album by this band; their fifth album, *Save Me, San Francisco*, included the song “Hey, Soul Sister.”

answer: Train

B. In January 2016 one of these marine animals blocked the highway while giving birth to a pup. They are named for their trunk-like noses.

answer: (Northern) elephant seals (or Mirounga angustirostris; accept Mirounga; prompt on “seal(s)”)

C. California 37's east end, in Vallejo [vuh-LAY-hoh], is by an intersection with this interstate that runs from San Francisco to New York City. Its number indicates that it is the second-northernmost major east-west interstate.

answer: Interstate 80 (or I-80)

<MISC., MISC.>

9. Draw two concentric circles, and fill in the area between them. For 10 points each—

A. This is the name for the resulting shape.

answer: annulus (or annular shape; accept annuli; prompt on “ring”)

B. If the smaller circle has a radius measuring lowercase *r*, and the larger circle has a radius measuring capital *R*, what is the area of the annulus? Be sure to specify the case of each 'R' in your answer.

answer: pi (R2 - r2) [“pi times the quantity uppercase *R* squared minus lowercase *r* squared”] or pi R2 – pi r2 [“pi (times) uppercase *R* squared minus pi (times) lowercase *r* squared”] (accept synonymous for case-specifying adjectives, like “capital” for “uppercase”)

C. Solids similar to annuli—as if they were slightly thickened in a direction perpendicular to the plane they lie in—are the fundamental pieces in this specific method for finding the volume of a solid of revolution in calculus.

answer: integration by washers (or washer integration; do not accept or prompt on answers containing “shell” or “disk”)

<SCI, OTHER>

10. This character states “the better part of valor is discretion” after he survives a battle by pretending to be dead. For 10 points each—

A. Name this drinking companion of Prince Hal in Shakespeare's *Henry IV* [“the fourth”].

answer: John Falstaff (accept either underlined portion)

B. Falstaff unsuccessfully tries to court Mistress Ford and Mistress Page in this Shakespeare comedy.

answer: The Merry Wives of Windsor

C. 18th-century commentators suggested that Shakespeare reused the character of Falstaff to please this Queen of England.

answer: Elizabeth I of England (prompt on “Elizabeth”)

<LIT, BRIT>

11. For 10 points each—answer the following about string quartets:

A. Antonín Dvorák's [ahn-toh-NEEN d'VOR-zhahk's] Twelfth String Quartet was composed during his time in this country. Spirituals from this country inspired Dvorák's symphony “From the New World.”

answer: United States of America or U.S.A. (accept any underlined portion; accept American String Quartet)

B. This composer's *lied* [leet] “Death and the Maiden,” based on a Matthias Claudius poem, partly inspired his Fourteenth String Quartet of the same name.

answer: Franz (Peter) Schubert

C. This composer portrayed significant autobiographical events in his First String Quartet, titled “From My Life.” He also wrote a set of six tone poems that begins with *Vyšerad* [VEE-“share”-ahd].

answer: Bedrich Smetana [BED-rik SMEH-tah-nah]

<FA, AUDIO>

12. This man received a recess appointment to become secretary of the treasury in 1833 after he angered Whigs with his opposition to the Second Bank of the United States. For 10 points each—

A. Name this politician from Maryland, who in 1834 became the first Cabinet nominee to be rejected by the Senate.

answer: Roger (Brooke) Taney [TAW-nee]

B. In 1835 Taney became Chief Justice of the Supreme Court, succeeding this longest-serving Chief Justice.

answer: John Marshall

C. In the case *Ex parte Merryman*, Taney held that Abraham Lincoln lacked the authority to suspend the issuance of these writs, used to report unlawful imprisonment; Lincoln ignored the ruling.

answer: writ(s) of habeas corpus [HAY-bee-us KOR-pus]

<HIST, AMER>

13. Its first section, the duodenum [doo-AH-duh-num], is the main site of digestion of fats. For 10 points each—

A. Name this abdominal organ that receives the contents of the stomach.

answer: small intestine (or small bowel; prompt on “intestine” or “bowel”)

B. When chyme [first consonant is like 'K'] from the stomach reaches the small intestine, it triggers release of this hormone, which promotes the release of bile from the gallbladder.

answer: CCK or cholecystokinin

C. The pancreas secretes this ion to neutralize the acid in chyme and prevent erosion of the duodenum.

answer: bicarbonate (or hydrogen carbonate or HCO3–)

<SCI, BIO>

14. This “Galloping” ghost is thought to be the spirit of a Hessian [HEH-shun] who died during the American Revolution. For 10 points each—

A. Name this ghost that farmers near Tarry Town believe to be responsible for the disappearance of a local schoolmaster.

answer: Headless Horseman (accept, but do not otherwise reveal, Headless Horseman of Sleepy Hollow; prompt on “Horseman”; prompt on “Galloping Hessian (of the Hollow)”; prompt on “Brom (Bones)” or “Brom (Van Brunt)” or “Abraham (Van Brunt)” or ”(Abraham) Van Brunt”)

B. An apparition of the Headless Horseman, which is actually Brom Bones carrying a pumpkin, frightens away this teacher.

answer: Ichabod [ICK-uh-bahd] Crane (accept either underlined portion)

C. This author created the Headless Horseman in “The Legend of Sleepy Hollow,” a story from his collection *The Sketchbook of Geoffrey Crayon*.

answer: Washington Irving

<LIT, AMER>

15. During the Dirty War in this country, mothers congregated in front of the Casa Rosada [KAH-sah roh-SAH-dah] on the Plaza de Mayo [PLAH-zah day MYE-oh] to find out what happened to their children. For 10 points each—

A. Name this South American country where thousands disappeared after opposing the military regime of Jorge Rafael Videla [HOR-hay RAH-fie-el vee-DAY-lah].

answer: Argentina (or Argentine Republic or República Argentina)

B. The Dirty War began not long after the death of this president in 1974. During his first term from 1946 to 1952, he and his wife Evita [ay-VEE-tuh] were very popular.

answer: Juan (Domingo) Perón [“pair”-OHN]

C. The military regime in Argentina fell after the country lost this 1982 war with Great Britain over a group of Atlantic islands.

answer: Falklands War (or Falkland Islands War or Guerra de las Malvinas)

<HIST, WORLD>

16. A white dog is concealed in its surroundings at the bottom right of this painting. For 10 points each—

A. Name this painting that depicts a man hidden in the bushes spying under a woman's dress as she rides the title device.

answer: The Swing (or L'Escarpolette or The Happy Accidents of the Swing or Les Hasards Heureux de l'Escarpolette)

B. *The Swing* was painted by this French artist who was commissioned to paint the four painting series *The Progress of Love* by Madame du Barry [doo buh-ree].

answer: Jean-Honoré Fragonard

C. *The Swing* is a painting from this art movement, which developed out of the late stages of the Baroque style.

answer: Rococo

<FA, VISUAL>

17. This country's namesake lake is called Lake Nyasa [nye-AH-suh] in neighboring Tanzania. For 10 points each—

A. Name this African country known as Nyasaland during the colonial era.

answer: (Republic of) Malawi (or Dziko la Malawi)

B. Malawi is northwest of this country, whose namesake channel separates it from Madagascar. Its national flag features a hoe crossed with an AK-47.

answer: (Republic of) Mozambique [moh-zahm-BEEK] (or República de Moçambique)

C. Due to its colonial past as Nyasaland, the official language of Malawi is currently this European language, which is also an official language in Kenya and Nigeria.

answer: English

<GEO, GEO>

18. For an iron bar, this quantity is the ratio of the internal forces along the length of the bar divided by its cross-section. For 10 points each—

A. Name this quantity studied by material scientists.

answer: (normal) (uniaxial) stress (prompt on “pressure”)

B. Stress leads to this deformation that lengthens or shortens the bar; it is expressed as ratio of the change in length to the original length.

answer: (normal) strain (accept Cauchy strain or engineering strain)

C. In many cases, removing a stress also removes the strain; stresses that exceed this “limit,” however, lead to permanent “plastic” deformation.

answer: elastic limit (or yield point or yield strength)

<SCI, PHYS>

19. This god's siblings Selene [suh-LEEN] and Eos [EE-oss] were the personifications of the moon and dawn, respectively. For 10 points each—

A. Name this Greek Titan who drove the chariot of the sun across the sky.

answer: Helios [HEE-lee-ohss] (do not accept or prompt on “Sol” or “Sol Invictus”)

B. This son of Helios and Clymene [KLYE-men-ee] tried to drive his father's sun chariot but failed, nearly burning up the earth.

answer: Phaëton [FAY-uh-tun] or Phaëthon [FAY-uh-thun]

C. Odysseus and his crew slaughtered a group of these animals sacred to Helios on the island of Thrinacia [thrin-AY-shuh].

answer: cows or cattle

<RMPSS, MYTH>

20. One character in this film notes that Charlie Parker only became Charlie Parker after he had a cymbal thrown at his head. For 10 points each—

A. Name this 2014 film in which music student Andrew Nieman, played by Miles Teller, struggles to please his inhumane jazz instructor, Terence Fletcher.

answer: Whiplash

B. This man won the Best Supporting Actor Oscar for playing Terence Fletcher. He voiced Tenzin in *The Legend of Korra*.

answer: J. K. Simmons (or Jonathan Kimble Simmons)

C. In *Whiplash*, Nieman—who idolizes Buddy Rich—plays this instrument in Fletcher's jazz ensemble. In one scene, Fletcher forces Nieman to race across town after Nieman forgets his sticks.

answer: drums or drum set (or drum kit; accept set or kit or trap set or percussion)

<TRASH, POP CULT>

21. Pencil and paper ready. In an infinite sequence, the *n*th term is defined as 2 raised to the *n* minus 1 power. For 10 points each—

A. What is the first three-digit number in the sequence, given that it starts 1, 2, 4, 8?

answer: 128 [26 = 64; 27 = 128]

B. What is the *sum* of the first 11 terms of the sequence, given that the 12th term is 2,048? You have 10 seconds.

answer: 2,047 [The sum of the first *n* terms is 2*n* - 1.]

C. The 41st term, which equals 2 raised to the 40th power, is within 10 percent of 1 times 10 raised to what integer power?

answer: 12th power (accept 1 × 1012 or 1 trillion) [210 = 1,024, which is approximately 103 = 1,000, so 240 = (210)4 = (103)4 = 1012.]

<SCI, OTHER>

22. He was both preceded and succeeded by Winston Churchill. For 10 points each—

A. Name this man who, from 1945 to 1951, served as British prime minister.

answer: Clement (Richard) Attlee

B. In 1946 Attlee's government passed an act nationalizing this financial institution headquartered on Threadneedle Street.

answer: Bank of England (prompt on “Bank”)

C. Attlee vociferously criticized this policy of Neville Chamberlain [“CHAMBER”-lin], represented by the Munich Agreement, which attempted to avoid war by acceding to the demands of Adolf Hitler.

answer: appeasement (accept appeasing or appeases)

<HIST, EURO>

23. For 10 points each—name these people who traveled around the world:

A. This Englishman gave his name to a “passage” through Tierra del Fuego [tee-AIR-uh del FWAY-goh] during his 1577-to-1580 circumnavigation in the *Golden Hind*.

answer: Sir Francis Drake (accept Drake Passage)

B. This Jules Verne character won a 20,000-pound bet by traveling around the world in under 80 days.

answer: Phileas Fogg (accept either underlined portion; do not accept or prompt on “Phineas (Fogg)”)

C. This man went around the Earth in about 108 minutes on April 12, 1961.

answer: Yuri (Alekseyevich) Gagarin [guh-GAR-in]

<MISC., MISC.>

24. Along with scandium [SKAN-dee-um] and yttrium [YIT-ree-um], these elements comprise the rare earth elements. For 10 points each—

A. Name this group of elements that also includes samarium [suh-MAIR-ee-um] and gadolinium [gad-oh-LIN-ee-um].

answer: lanthanides [LAN-thuh-nydes] or lanthanoids

B. These elements are below the lanthanides on the periodic table. Uranium is in this row, which is named for the element whose atomic symbol is Ac [“A-C”].

answer: actinides [AK-tih-nydes] or actinoids

C. Lanthanides are elements in which this specific subshell is partially filled. Its quantum number *l* equals 3.

answer: 4f subshell (do not accept or prompt on “4”; prompt on “f”)

<SCI, CHEM>