1. The 2011 standard for this programming language added “r-value references” and a constant for the null pointer. Boost libraries work with this language, in which calls to “new” have mostly replaced “malloc” [MAL-uk] for memory allocation. (*) Bjørn Stroustrup [b/YAR-nay STRAHV-stroop] created this object-oriented language. It is partly named for an operator that increments variables. For 10 points—identify this update of a language with a single-letter name.

answer: C++ [“c-plus-plus”] (do not accept or prompt on “C”)

2. In this year, the U.S. simulated a biological attack in Operation Dark Winter. The FBI concluded that a crime in this year was masterminded by Bruce Ivins [EYE-vinz]. Ari Fleischer [AH-ree FLY-shur] claimed the word “in” was not part of a memo sent during this year to a president vacationing in (*) Texas. The Battle of Tora Bora [TOR-uh BOR-uh] was fought in this year. Two senators received mail containing anthrax in—for 10 points—what year in which 9/11 [“nine-eleven”] occurred?

answer: 2001 [Ivins is suspected of sending the letters containing anthrax. The press secretary Ari Fleischer falsely claimed that the title of a memo sent to George W. Bush was “Bin Laden Determined to Strike the United States,” rather than “Bin Laden Determined to Strike in U.S.”]

3. In a 2017 ruling, a judge in this state declared that an “urban heroin dealer” not having a gun would be “an anomaly” [uh-NAH-muh-lee]. Police in this state chanted “whose streets? Our streets!” in response to riots that erupted after white police officer Jason (*) Stockley was found not guilty of murdering Anthony Lamar [luh-“MAR”] Smith. For 10 points—name this state previously rocked by 2014 protests after Michael Brown was killed in Ferguson.

answer: Missouri

4. An opera by this composer includes an extensive piano part in the coloratura [KUL-uh-ruh TOO-ruh] aria [AH-ree-uh] “Großmächtige Prinzessin” [groehs-MEK-tee-guh print-SEH-sin]. In that piece by this composer, a man learns his opera seria [SAY-ree-uh] about a Greek princess must be performed with a burlesque [bur-LESK] led by Zerbinetta. This composer of (*) Ariadne auf Naxos [AH-ree-OH-NEH owf NAK-sohs] also wrote an opera in which the “breeces role” of Octavian delivers a silver flower to Sophie. For 10 points—who composed Der Rosenkavalier [dair ROH-zen-KAH-val-yer]?

answer: Richard (Georg) Strauss [REE-“cart” shtrouss] (prompt on “Strauss”)

5. Relatively gentle methods to prepare a sample for this procedure include electrospray [“electro-spray”] ionization and MALDI [MAHL-dee]. In this process, peaks of equal intensity separated by two units can indicate the presence of bromine [BROH-ween]. Important peaks in this procedure are the tallest, or “base,” peak and the (*) M+ [“M plus”], or “molecular ion,” peak. For 10 points—name this form of spectrometry [spek-TRAH-muh-tree] that gives the ratio of the namesake quantity to charge.

answer: mass spectrometry or mass spectroscopy (accept mass (spectrometry) or mass (spectroscopy) after “spectrometry”)
6. This novel's protagonist is mistaken for a literary critic during a roundtable discussion broadcast from New York City by a late-night radio show. Gangrene ['GAN-green] leads to death of Roland Weary in this novel, prompting the narrator to say (*) "so it goes." This novel, which is subtitled "the children's crusade," depicts the alien abduction of Billy Pilgrim. For 10 points—name this anti-war novel by Kurt Vonnegut [VAH-nuh-gut].

   answer: Slaughterhouse-Five, or The Children's Crusade: A Duty-Dance with Death)

7. An account by the chronicler Peter Martyr d'Anghiera [dahn-J'YAIR-uh] calls this island "Quizqueia" [kee-zAY-yah], The town of Nueva Isabela [NWAY-vah ee-sah-BAY-lah] was founded on this island. Taíno [tah-EE-noh] residents of this island helped to construct a settlement called La Navidad [lah-nah-vee-DAH] using materials from the shipwreck of the (*) Santa Maria. The first permanent European settlement in the Americas was founded by Christopher Columbus on—for 10 points—what second-largest Caribbean island?

   answer: Hispaniola [his-span-YOH-luh] (accept Santo Domingo; do not accept or prompt on “Haiti” or “(the) Dominican Republic”) [The largest Caribbean island is Cuba.]

8. A young man in this musical is "promoted" from "idiot apprentice to incompetent clerk." Rudolf's wait staff dance "The Waiter's Gallop' in this musical that depicts a milliner's [MI-luh-nur'] romance with Cornelius [kor-NEEL-yuss] Hackl. A version of its title song, which notes "you're still (*) glowin', you're still crowin'," was recorded by Louis [LOO-ee] Armstrong. For 10 points—name this musical in which Horace Vandergelder [VAN-der-geld-uh] falls in love with a matchmaking widow.

   answer: Hello, Dolly!

9. This structure's outermost cells are classified as "on-center" or "off-center" based on the properties of their receptive fields, and receive input from amacrine ['AM-uh-krin] and bipolar cells. In this structure, the protein rhodopsin [roh-DAH-P-sin] is activated by photoisomerization ['photo-eye-sah-MUR-ih-nur'] of vitamin A. The (*) macula [MAK-yoo-luh] and fovea [FOH-vee-uh] are found in this structure, which contains rod and cone cells. For 10 points—name this light-sensitive layer in the back of the eye.

   answer: retina(s) [RET-in-uh] (prompt on “eye(s)” before “eye”)

10. This building's exterior contains a 4x4 ["four-by-four"] magic square. Its four central pillars, which resemble trees, are set with jewel-like stones representing the Four Evangelists. The austere Passion Facade [fuh-SAHHD] of this church was decorated by (*) Josep Subirachs [soo-bee-RAHKS]. Its Glory Facade, like ten of its 18 planned towers, is still under construction, which began in 1882. For 10 points—name this Barcelona church designed by Antoni Gaudi [an-TOH-nee goh-DEE].

   answer: Sagrada Familia [sah-GRAH-dah fah-MEE-ee-uh] (or Basílica i Temple Expiatori de la Sagrada Familia or Church of the Sagrada Familia or Basilica (and Expiatory Church) of the Sagrada Familia; prompt on "(Church of the) Holy Family" or "(Basilica of the) Holy Family")

11. During this conflict, the territorial governor Charles Bent was scalped in the Taos [towss] Revolt. The immigrant John Riley defected from one side in this war before organizing fellow Irish defectors into the Saint Patrick's Battalion. Six "Boy Heroes" defended (*) Chapultepec [chah-POOL-tay-pek] Castle in this war after the Battles of Contreras [kohn-TRAY-rahhs], Churubusco [choo-roh-BOSS-koh], and Cerro Gordo [SAIR-oh GOR-doh]. For 10 points—name this war in which Winfield Scott landed at Veracruz [vair-uh-KROOZ].

   answer: Mexican-American War (accept Taos Revolt before "Taos")

12. In humans, one form of this process requires a feedforward loop of the transcription factor Sox9 ["socks-nine"]. Temperature-dependent changes in the activity of aromatase [uh-ROH-muh-tayss] govern this process in reptiles. Differentiation of the Wolffian ducts occurs in one form of this process, which is governed by the (*) ZW ["Z-W"] system in birds, and the XY ["X-Y"] system in humans. For 10 points—name this process by which a zygote [ZYE-uh-goat] becomes male or female.

   answer: sex determination or sexual determination (accept answers using the word differentiation or development in place of “determination”; accept answers describing determining what sex an offspring will be; accept answers describing determining whether an offspring becomes male or female before “male”; do not accept or prompt on answers that mention “gender")
13. A poem written in this language that contrasts a creature who knows “one big thing” with an animal who knows “many things” inspired the title of Isaiah [*eye-ZAY-uh*] Berlin’s essay The Hedgehog and the Fox. This language is used to describe a bridegroom who is “taller than a tall man” in a poem written by a woman from the city of (*) Mytilene [mit-uh-LEE-nee] on Lesbos [LEZ-bohss]. For 10 points—what ancient language was used by the lyric poets Archilochus [ar-KIL-uh-kuss] and Sappho [SAF-oh]? 

answer: ancient Greek (language) (or hellenike; accept Hellenic language or or ellinikà or elliniki glossa)  

14. On formal occasions, these people wore a white woolen suffibulum [suh-FIB-yoo-lum] over a series of symbolic white and red ribbons. Theodosius [thee-uh-DOH-zhuss] the Great’s abolition of this group in 391 made Coelia Concordia [SEE-lee-uh ’con’-KOR-dee-uh] its last leader. These people were (*) buried alive in the Campus Sceleratus [skel-uh-RAH-tiss] if they violated their oath of chastity. For 10 points—name these priestesses of ancient Rome, who were tasked with tending a sacred flame. 

answer: Vestal Virgin(s) (or Vestals or Vestales; prompt on “virgins”)  

15. Modern examples of these devices often use miniature Lavet [lah-VAY] motors. In the 1670s a new balance spring revolutionized the manufacture of these devices. The introduction of the Astron model of these things in 1969 sparked the “quartz crisis,” which decimated the traditional manufacture of these devices in (*) Switzerland. Horology [hor-AH-luh-jee] schools teach the building and repair of—for 10 points—what devices made by Seiko [SAY-koh] and Rolex [ROH-keks]? 

answer: (wrist)watches (or pocket watches; prompt on “clock(s)” or “timepiece(s)” or descriptive answers mentioning a device for “keep(ing) (or tell(ing)) time”)  

16. This character calls himself a “shy” man whom others see as “an arbitrary overbearing bossing kind of person.” The housekeeper Mrs. Pearce works for this man, who curses the time he spent with a “heartless guttersnipe.” His rivals include Professor Nepean [neh-PEEN], whom he fears will learn his “methods.” In (*) Covent [KUH] Garden, Colonel [kah-ner] Pickering makes a bet with—for 10 points—what phonetics expert who trains Eliza Doolittle in Pygmalion [pig-MALE-yun]? 

answer: (Dr.) Henry Higgins (accept either underlined portion)  

17. A radio mast named for this city was the world’s tallest structure until the mast collapsed in 1991. This capital contains a skyscraper formerly known as the Joseph Stalin Palace of Culture and Science. A landmark called Sigismund’s [SIG-iss-mundz] Column commemorates Sigismund III Vasa [SIG-iss-mund “the third” VAH-suh], who moved his capital from (*) Kraków [KRAK-ow] to this city on the Vistula [VISS-choo-lah] River. A 1943 Jewish ghetto uprising occurred in—for 10 points—what Polish capital?  

answer: Warsaw (or Warszawa; accept Warsaw Radio Mast or Warsaw Ghetto; prompt on “getto warszawskie”)  

18. In the Lay of Hymir, this god and Thor lift a cauldron while competing to see who is strongest. At Ragnarök [RAG-nuh-’rock’], this god is destined to be killed by the guard dog of Hel [hehl], Garm. This god is sometimes called the ”Leavings of the (*) Wolf” because of an injury inflicted by a creature who was bound by the rope Gleipnir [GLEEP-neer]. For 10 points—name this Norse war god whose hand was bitten off by the giant wolf Fenrir [FEN-reer]. 

answer: Tyr [teer] (or Tiw [too])  

19. As of 2018, the WNBA team in this city is the only one that has not reached the WNBA Finals. After selecting Jan Vesely [yah VESS-uh-lee] in 2011, the NBA team in this city received the third overall pick in both 2012 and 2013, which was used to take Georgetown’s (*) Otto Porter, and the Florida Gators’ Bradley Beal. The WNBA’s Mystics play in—for 10 points—what city, where Scott Brooks coaches, and John Wall plays for, the NBA’s Wizards? 

answer: Washington, D.C. (accept either underlined portion; accept District of Columbia)
20. Celidonus [ˈsɛə-lu-H-ne-us] is the traditional name given to a man with this disability in the Gospel of John, who is helped using a mixture of saliva and mud, followed by washing in the Pool of Siloam [sɪ-h-LO-u-m]. A beggar with this disability named (*) Bartimaeus [ˈbɑr-tɪ-MAY-us] encounters Jesus near Jericho [ˈje-rɪ-kə]. For 10 points—name this disability that Jesus cured in several people, an achievement that led Jesus to call himself the “light of the world.”

answer: blindness (accept answers mentioning forms of the word blind or sightless or describing an inability to see)

21. A 1992 paper showing that this process occurs faster in poorer countries was written by Greg Mankiw [ˈmæn-kiw], David Romer, and David Weil [ˈwail]. High debt levels inhibit this process, according to a 2010 paper by Carmen Reinhart and Kenneth Rogoff that had errors in its Excel data. (*) Population increase and technological progress are factors in the exogenous [ɛks-ɛ-hu-nəs] Solow [ˈsoʊ-ləʊ] model of—for 10 points—what process in which an economy’s GDP goes up?

answer: (economic) growth (accept answers mentioning word forms of grow; accept A Contribution to the Empirics of Economic Growth or Solow growth model)

22. Participants in this ritual broke their fast by drinking a mint and barley mixture called kykeon [kə-kən] in memory of the refreshment given to one of this ritual’s dedicates after she was taken in by Celeus [ˈɛl-lə-əs]. Triptolemus [trip-ˈtə-lə-məs] was one of the first initiates into the Attic (*) cult that staged this ritual, which celebrated the return of Persephone [pər-ˈsɛ-fən]. Demeter [di-ˈmɪ-tər] was honored in—for 10 points—what festival, which was one of the Greek “mysteries”?

answer: Eleusinian Mysteries [ɪl-ˈyoo-sən-ən] (or Eleusinia Mystiria; accept answers mentioning mysteries or mystery and Eleusinian or Eleusis; accept Eleusinian or Eleusis or Elefsinia after “mysteries”)

23. Pasquale Paoli [pə-ˈskwɔ-lə-ˌpɔ-li] fled into exile after this king’s forces took Corsica [ˈkɔr-sə] This man’s forces won the Battle of Fontenoy [fɒ-ˈtɛn-ə] and took the Austrian Netherlands, which he returned in the Treaty of Aix-la-Chapelle [əks la ˈʃʌ-ə]. Prussia ended an alliance with this king in the (*) “Diplomatic Revolution.” He supposedly said “après moi, le déluge” [ah-pray-ˈmo, le ˈdɛl-ʒə]. The Seven Years’ War was lost by—for 10 points—what French king who was the lover of Madame de Pompadour [Paul-mə-pə-dɔr]?

answer: Louis XV [ˈlu-əs ˈsɑ̃] (accept Louis the Beloved or Louis le Bien Aimé; prompt on “Louis”)

24. A character in this novel is blackmailed during his honeymoon at Granbois [ɡrahn-ˈbwa] by a man claiming to be his wife’s brother. This novel’s protagonist is injured by a rock thrown by Tia [ˈtjæ] at the Coulibri [kou-ˈlɪbri] Estate, which is burned down by slaves. Part of this book is set in England, where (*) Grace Poole cares for the now-insane Antoinette [an-twə-ˈnet] Cosway. For 10 points—name this Jean Rhys [ˈrɪz] novel inspired by Charlotte Brontë’s [ˈbrɒnti] Jane Eyre [ˈeɪr].

answer: Wide Sargasso Sea (do not accept or prompt on “Jane Eyre”)
1. A “wild nightmare” is produced by an encounter with a Galápagos [gah-LAH-pah-gohs] tortoise in “The Encantadas” [en-kahn-TAH-dahz], one of the stories in this 1856 collection. For 10 points each—
   A. Name this collection that describes mysterious events aboard a Spanish slave ship in the story “Benito Cereno” [bay-NEE-toh say-RAY-noh].
   answer: The Piazza Tales [pee-AHT-sah “tales”]
   B. This author of The Piazza Tales wrote about a whaling ship in the novel Moby-Dick.
   answer: Herman Melville
   C. The Piazza Tales also contains a story about this scrivener [SKRIH-vuh-nur], who repeatedly tells his employer “I would prefer not to.”
   answer: Bartleby (accept Bartleby, the Scrivener: A Story of Wall Street)

2. Belá Bartók’s [BAY-luh “BAR-toke’s”] Concerto [“con-CHAIR-toe”] for Orchestra supposedly parodies the “Invasion Theme” from this man’s Leningrad Symphony. For 10 points each—
   A. Name this Soviet composer, who wrote his fifth symphony after being severely criticized by Joseph Stalin.
   answer: Dmitri (Dmitriyevich) Shostakovich [sha-wss-tuh-KOH-vitch]
   B. The attack came in the Pravda [PRAHV-dah] article “Muddle Instead of Music,” which condemned this Shostakovich opera as “bourgeois” [boozh-WAH] and “coarse.”
   answer: Lady Macbeth of the Mtsensk District [mut-SENSK “district”] or Lady Macbeth of Mtsensk (or Ledi Makbet Mtsenskogo Uveza; do not accept or prompt on “Katerina Ismailova”; prompt on “Lady Macbeth” by itself)
   C. Shostakovich quoted both his Fifth Symphony and his opera Lady Macbeth in his eighth of these chamber works, of which he wrote 15 total. Bartók wrote six influential pieces in this genre.
   answer: string quartets (prompt on “quartet(s)”)  

3. This show, which first aired in 1992, is currently the longest-running on its network. For 10 points each—
   A. Name this reality show. Its recent 32nd season was subtitled “Bad Blood,” and was set in the Pacific Northwest.
   answer: The Real World (accept Real World Seattle: Bad Blood)
   B. The Real World airs on this cable network, whose other programs have included Singled Out and Jersey Shore.
   answer: MTV (or Music Television)
   C. This former Real World castmember is the current Intercontinental Champion of the WWE [“W-W-E”], and has starred in three films in The Marine franchise.
   answer: The Miz (or Michael Gregory Mizanin)
4. After this man killed his uncles Toxeus [TAHK-see-us] and Plexippus [plek-SIP-uss], his mother Althaea [al-THEE-uh] caused his death by placing a brand in a fire. For 10 points each—
   A. Name this figure from Greek myth who killed the Calydonian [kal-ih-DOH-nee-un] Boar.
      answer: Meleager [mel-ee-AY-gur] (or Meleagros)
   B. This virgin huntress was the first to wound the boar. She later married Hippomenes [hih-PAH-meh-neez] after he beat her in a footrace.
      answer: Atalanta [at-uh-LAN-tuh] (or Atalante)
   C. Meleager was the son of this man, who ordered the hunt for the boar, and also introduced the art of winemaking to Aetolia [ee-TOH-lee-uh].
      answer: Oeneus [EE-nee-us] (or Oineus)

5. This ruler responded to a 1387 revolt in Isfahan [iss-fah-HAHN] by massacring 70,000 people. For 10 points each—
   A. Name this Turco-Mongol warlord based in Samarkand [SAM-ur-kand], who conquered much of Central Asia and the Middle East in the late 14th century.
      answer: Tamerlane [TAM-ur-’lane’] (or Emir) Timur the Lame (or Tarmashirin Khan Barlas or Timur Beg Gurkhani or Timur (i) Leng)
   B. Centuries after Tamerlane, Isfahan became the capital of this Islamic dynasty founded by Ismail I, which fought several wars with the Ottomans.
      answer: Safavid [suh-FAH-vid] Empire (or Safavid Dynasty or Dudamn e Safavi or Safavids)
   C. Isfahan is now the third-most populous city in this Islamic Republic ruled by Ayatollah Ali Khamenei [’eye’-ah-TOH-lah ah-LEE kah-men-ee-EE].
      answer: Iran [ihr-RAHN] (or Islamic Republic of Iran or Jomhuri-ye Eslami-ye Iran)

6. For 10 points each—answer the following about uses of the mathematical term ”range”:
   A. The range of a set of data is the difference between these two statistics of the set.
      answer: maximum (or maxima or maximal value; prompt on “largest (value)”) or minimum (or minima or minimal value; prompt on “smallest (value)”)
      (accept answers in either order; accept maximum minus minimum or equivalents)
   B. For a function, the range is the set of possible outputs; what term refers to the set of possible inputs?
      answer: domain
   C. In linear algebra, this “space” of a matrix is also known as the matrix’s range.
      answer: column space

7. The aspiring Canadian politician Rex Mottram marries the daughter of Lord and Lady Marchmain [’MARCH-main’] in this novel. For 10 points each—
   A. Name this 1945 novel in which Sebastian Flyte invites Charles Ryder to the title estate.
      answer: Brideshead Revisited
   B. This British author of Brideshead Revisited also wrote the satirical novel Decline and Fall.
      answer: Evelyn Waugh [EE-vuh-lin WAW] (or Arthur Evelyn St. John Waugh)
   C. A fictional newspaper from Waugh’s novel Scoop inspired the name of this centrist news and opinion website that employs Nico Hines, Spencer Ackerman, and John Avlon.
      answer: The Daily Beast (accept www.thedailybeast.com)
8. For 10 points each—answer the following about the advocacy organization ACT UP ['act up):
   A. ACT UP was founded in 1987 in response to this medical crisis. By the mid-1990s this medical crisis was claiming over 40,000 lives a year in the U.S.
   answer: AIDS ['aids'] crisis (accept answers denoting a crisis or epidemic (or pandemic) centered on HIV and/or AIDS or human immunodeficiency virus or acquired immune deficiency syndrome or acquired immunodeficiency syndrome)
   B. In 1988 ACT UP picketed this magazine edited by Helen Gurley Brown after it claimed that heterosexual sex could not transmit HIV ['HIV'] to women.
   answer: Cosmopolitan (accept Cosmo)
   C. In a 1989 protest at St. Patrick's Cathedral, an ACT UP member smashed one of these objects on the ground. In Catholicism, this item can be received “in the hand” or “on the tongue” during the Eucharist [YOO-guh-nist].
   answer: communion wafers (accept the host; prompt on ”(sacramental) bread”; prompt on ”(the body of) Jesus” or “Christ”)  

9. For 10 points each—answer the following about folk singer Joan Baez [BYE-ez]:
   A. In August 1969 Baez performed at this music festival on a New York dairy farm that attracted over 400,000 attendees.
   answer: Woodstock
   B. Baez's song “Diamonds & Rust” reflected on her relationship with this singer. He won an Oscar for his song “Things Have Changed,” written for the movie Wonder Boys.
   answer: Bob Dylan (or Robert Allen Zimmerman)
   C. Baez led a rendition of this protest song during the 1963 March on Washington. Its various verses repeat “we'll walk hand in hand” and “we are not afraid.”
   answer: We Shall Overcome

10. Dick Caramel introduces his cousin Gloria to her future husband Anthony Patch in this 1922 novel. For 10 points each—
   A. Name this novel that appeared two years after its author’s This Side of Paradise.
   answer: The Beautiful and Damned (do not accept or prompt on ”(The) Beautiful and the Damned”)
   B. This author completed The Beautiful and Damned three years before The Great Gatsby.
   answer: F. Scott Fitzgerald (or Francis Scott Key Fitzgerald)
   C. In the title of a 1922 story collection, Fitzgerald referred to an “Age” characterized by this style of music. Toni Morrison wrote a 1992 novel named for this musical style.
   answer: jazz (accept Jazz Age; accept Tales of the Jazz Age or Jazz)

11. A set of relations named for this physicist links partial derivatives of quantities labeled 'V', 'S', 'T', and 'P'. For 10 points each—
   A. Name this Scottish physicist, who also derived the wave equation for electromagnetic ['electro-magnetic'] radiation.
   answer: James Clerk ['clark'] Maxwell (accept Maxwell's wave equation; accept Maxwell relations)
   B. The Maxwell relations involve this kind of variable—like volume or entropy—that depends on the current conditions of a system, but not its history.
   answer: thermodynamic state variable(s) or function(s) or quantity or quantities
   C. Volume and temperature are the “natural variables” of one of these quantities named for Hermann von Helmholtz. Another of these quantities is named for Josiah Gibbs.
   answer: free energy (or free energies; accept Helmholtz free energy or Gibbs free energy; prompt on “energy” or “energies”)
12. During the French and Indian War George Washington targeted Fort Duquesne [doo-‘KANE’], which was built on the headwaters of this river. For 10 points each—
A. Name this tributary of the Mississippi that flows through Cincinnati.
   answer: Ohio River
B. After the French and Indian War, Fort Duquesne was destroyed and replaced by this British fort named after the prime minister at the time.
   answer: Fort Pitt (accept William Pitt the Elder)
C. Fort Pitt was built on the banks of this river, which joins with the Allegheny [AL-uh-GAY-nee] River to form the Ohio.
   answer: Monongahela [muh-naw-gah-HAY-luh] River

13. For 10 points each—answer the following about depictions of guitars by Cubist painters:
A. Man with a Guitar is a painting by this early Cubist, whose scene Houses at l’Estaque [leh-‘STACK’] inspired the name of the Cubist movement.
   answer: Georges Braque [zhorzh BRAHK]
B. This other co-founder of Cubism painted The Old Guitarist during his “Blue period.”
   answer: Pablo Picasso (or Pablo Diego José Francisco de Paula Juan Nepomuceno María de los Remedios Cipriano de la Santísima Trinidad Ruiz y Picasso)
C. This Spanish artist, who painted a Cubist portrait of Picasso, also produced the paintings Harlequin with Guitar [HAR-leh-kin ‘with guitar’] and Guitar and Pipe.
   answer: Juan Gris [greez] (or José Victoriano González-Pérez; prompt on “Pérez”)

14. When this phenomenon is “positive,” it results in a sigmoidal [sig-MOY-dul] binding curve. For 10 points each—
A. Name this phenomenon in which the binding of one substrate molecule alters the affinity of the remaining binding sites for more substrate molecules.
   answer: cooperativity (accept cooperative)
B. Positive cooperativity is seen in the binding of this protein’s iron atoms to oxygen, which this protein carries in red blood cells.
   answer: hemoglobin [HEE-muh-glo-bin] (prompt on “Hb” [H-B] or “Hgb” [H-G-B])
C. Hemoglobin can bind to this many oxygen molecules, since it is comprised of many subunits [‘sub-units’]. This many pyrrole [‘PIE-roll’] groups bind a magnesium atom in the center of chlorophyll [KLOR-uh-fil].
   answer: four

15. This book cites the 1973 Chilean coup [ko] as an example of the title policy. For 10 points each—
A. Name this 2007 book by Naomi [nay-OH-mee] Klein that chronicles the “rise of disaster capitalism,” as exemplified by the Iraq War.
   answer: The Shock Doctrine( The Rise of Disaster Capitalism)
B. Klein’s 2014 book This Changes Everything was subtitled “Capitalism vs.” this thing. The documentary An Inconvenient Truth discusses the global change in this thing.
   answer: (global) climate (accept climate change; accept This Changes Everything: Capitalism vs. the Climate; do not accept or prompt on “global warming”)
C. Klein’s book No Logo profiled a British libel trial involving this company. Thomas Friedman’s [FREED-mun’z] 1999 book The Lexus and the Olive Tree argues that nations containing franchises of this company do not go to war with each other.
   answer: McDonald’s (Corporation) [The trial was known as the “McLibel case.”]
16. These units first saw action at the 1552 Siege of Kazan [kuh-ZAHN]. For 10 points each—
A. Name these units of Russian musketeers whose hereditary service led them to accrue great political power.
answer: strelets (prompt on “shooter(s)”)
B. The Siege of Kazan occurred during the reign of this Russian tsar, who ruled from 1533 until 1584, and assumed the title Tsar of Russians in 1547.
answer: Ivan the Terrible (or Ivan IV [“the fourth”] Vasilyevich or Ivan Grozny; prompt on “Ivan”)
C. Like the Battle of Stalingrad, the siege of Kazan took place on the banks of this river.
answer: Volga River

17. Participants in this type of event were forced to wear a ritual garment known as a sambenito [sahm-bay-NEE-toh], which indicated their crimes. For 10 points each—
A. Name this religious event that might end with those convicted by the Inquisition being burned at the stake. Its name comes from the Portuguese for “act of faith.”
answer: auto-da-fe(s) [OW-toh dah FAY] (or auto-de-fés; accept autos-da-fe)
B. Between 1483 and 1498 Tomás de Torquemada [toh-MAHSS day tor-kay-MAH-dah] oversaw hundreds of auto-da-feés as the head of this country’s Inquisition.
answer: Spain (or Kingdom of Spain or Reino de España; prompt on “Spanish Inquisition” or “Inquisición Española”)
C. Roger Zelazny’s [kuh-LAZ-nee’s] story “Auto-da-Fé” appeared in Dangerous Visions, a science fiction anthology edited by this author of the story “I Have No Mouth, and I Must Scream.”
answer: Harlan (Jay) Ellison

18. This band covered the song “The Auld Triangle,” which was originally written by the Irish playwright Brendan Behan [BEE-un]. For 10 points each—
A. Name this band whose album The Warrior’s Code also includes a cover of the Boston Red Sox anthem “Tessie.”
answer: Dropkick Murphys
B. The Dropkick Murphys’s version of “I’m Shipping Up to Boston” appeared in this 2006 Martin Scorsese [skor-SAY-see] film about a policeman who infiltrates the Irish mob.
answer: The Departed
C. The Dropkick Murphys opened for this band on a 1997 tour. This band’s album Let’s Face It contains the ska song “The Impression That I Get.”
answer: The Mighty Mighty Bosstones (accept The Bosstones)

19. According to a “law” proposed by Cass Sunstein [SUN-steen], this process’s “group” form affects any group of people that starts out relatively like-minded. For 10 points each—
A. Name this process by which a group’s views get more extreme. In recent decades, it has grown within and between the major U.S. political parties.
answer: polarization (accept group or political or ideological polarization; accept law of group polarization; accept answers mentioning forms of the word polarize such as polarized or polarizing)
B. Nolan McCarty found that this economic condition grows in tandem with polarization. The Kuznets [KOOZ-nets] curve and the Piketty [pih-KET-ee] formula “r > g” [“r is greater than g”] track its change with time.
answer: inequality (accept economic or income or wealth inequality; accept top 1 percent’s income share or wealth gap)
C. Polarization is often exacerbated by this cognitive bias, in which people seek out or interpret information to uphold their existing beliefs.
answer: confirmation bias (accept confirmatory bias or myside bias)
20. For 10 points each—answer the following about solutions:
   A. This term, which is also used to describe some fats, describes a solution that contains the maximum possible amount of solute [SAHL-yoot].
   answer: saturated solution(s)
   B. Ideal solutions obey this law, which says the partial pressure of each component in a mixture equals the component’s mole fraction times the vapor pressure of the pure component.
   answer: Raoult's [RAH-oolt'z or “Raoul's”] law
   C. Equilibrium constants for reactions in non-ideal solutions are formulated in terms of this quantity, which equals a namesake coefficient ['co-efficient'] times the concentration of a species.
   answer: thermodynamic activity (do not accept or prompt on “activity coefficient”)

21. Francis Younghusband's expedition reached this city in August 1904. For 10 points each—
   A. Name this city, the site of the Potala [POH-tah-la] Palace.
   answer: Lhasa [LAH-suh]
   B. Younghusband's expedition resulted in the signing of a treaty with this last Chinese dynasty, which fought the Opium Wars against Britain.
   answer: (Great) Qing [cheeng] Dynasty (or Ch’ing Dynasty or Manchu Dynasty or Qing cháo)
   C. This spiritual leader of Tibetan Buddhism has lived in exile in India since China’s 1959 invasion of Tibet.
   answer: 14th Dalai Lama [DAH-ye LAH-muh] (or (Jetsun Jamphel Ngawang Lobsang Yeshe) Tenzin Gyatso or Lhamo Thondup)

22. This country is the world’s leading producer of fishmeal, thanks to a namesake anchovy that yields the world’s largest annual fish catch. For 10 points each—
   A. Name this South American country that underwent economic reforms in the 1990s under Alberto Fujimori [foo-jee-mor-ee].
   answer: Peru (or Republic of Peru or República del Perú; prompt on “Peruvian anchoveta” or “Peruvian anchovy”)
   B. Peru’s enormous anchovy population is due to the massive upwelling caused by this cold Pacific current, named for a Prussian geographer and explorer.
   answer: Humboldt current [The Humboldt current is named after Alexander von Humboldt.]
   C. Peru’s flying squid catch has been devastated due to overfishing by ships from this Asian country. There are millions of acres of carp farms in this country’s Pearl and Yangtze [yang-see] river basins.
   answer: China (or People’s Republic of China or PRC or Zhongguo or Zhonghua Renmin Gongheguo; do not accept or prompt on “Republic of China”)

23. In a 2016 magazine article, this philosopher applied one of his concepts to Donald Trump, whom this man claimed was indifferent to the truth rather than lying. For 10 points each—
   A. Name this author of the essay “On Bullshit.”
   answer: Harry (Gordon) Frankfurt
   B. “On Bullshit” includes an anecdote about this author of Philosophical Investigations, who expressed disgust after someone claimed to feel “just like a dog that has been run over.”
   answer: Ludwig Wittgenstein [LOOT-vig VIT-ghen-shyne] (or Ludwig Josef Johann Wittgenstein)
   C. Frankfurt developed a “compatibilist” ['compatible-ist'] view of this idea, which holds that the mind can make decisions not entirely decided by external factors.
   answer: free will (or freedom of the will; prompt on “will”)

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24. For 10 points each—answer the following about literary womanizers:

A. Thomas Fowler, the protagonist of this Graham Greene novel set in colonial Vietnam, has slept with more than 40 women.

answer: The Quiet American

B. This character enjoys a reputation as a ladies’ man before he becomes Scarlett’s third husband in Gone with the Wind.

answer: Rhett Butler (accept either underlined portion)

C. This libertine first appeared in the 17th-century play The Trickster of Seville and the Stone Guest. He seduces Donna Julia in the first canto of an epic by Lord Byron.

answer: Don Juan [dohn WAHN or JOO-un]