1. This man reused his “Sanctus” [SAHK-noo-tos] in D major for six voices in his Mass in B minor. The oldest known harpsichord [HARP-sih-kord] solo appears in the fifth of a set of six works he composed for a (*) margrave. The Brandenburg Concertos were written by—for 10 points—what German Baroque composer?  
answer: Johann Sebastian Bach  

2. Von Ebner’s glands and the parotid [puh-RAH-tid] glands both produce this material. It contains the antibody immunoglobulin A [im-yoo-GLAHB-yoo-in “A”] as well as the enzyme amylase [AA-mih-“lace”] that begins the (*) digestion of starch, and it coats the mucosa [myoo-KOH-suh] of the mouth. For 10 points—name this watery fluid found in the mouth. 
answer: saliva (prompt on “spit”)  

3. In the 19th century, this island was circumnavigated by Matthew Flinders. Its southernmost part, Wilson’s Promontory, juts into the Bass Strait; that peninsula is in the state of (*) Victoria. The sandstone monolith Uluru [oo-LOG-roo] is in—for 10 points—what nation whose capital is Canberra [KAN-bruh]?  
answer: Australia (or Commonwealth of Australia)  

4. After this battle, the inhabitants of its namesake town refused to celebrate the Fourth of July until after World War II. Ulysses S. Grant’s victory at this battle effectively cut the (*) Confederacy in half. For 10 points—name this 1863 siege of a fortified town on the Mississippi River. 
answer: Battle of Vicksburg (or Siege of Vicksburg or Vicksburg Campaign) [Vicksburg surrendered on July 4, 1863.]  

5. This poet urged “make the most of what we yet may spend,” as death is “sans Wine, sans Song, sans Singer, and sans End!” In another quatrain, he longed for “a Book of Verses (*) underneath the Bough / a Jug of Wine, a Loaf of Bread—and Thou.” For 10 points—name this Persian poet of the Rubáiyát [roo-BYE-ahl], accept The Rubáiyát of Omar Khayyám  
answer: Omar Khayyám [KYE-yahn] (or Ghiyath ad-Din Abu’l-Fath) Umar (ibn Ibrahim) al-Khayyam (Nishapuri); accept The Rubáiyát of Omar Khayyám  

6. This physicist analyzed the nature of light by using a pair of prisms to split and recombine white light, an experiment that he described in his 1704 book Opticks. Every (*) action has an equal and opposite reaction according to—for 10 points—what Englishman’s third law of motion?  
answer: Isaac Newton (accept Newton’s third law of motion)  

7. This English king lost his territories on the European continent after Otto IV [“the fourth”] lost to France at the Battle of Bouvines [boo-VEEN]. This successor to (*) Richard the Lionheart was forced to grant additional power to his barons in 1215. For 10 points—name this king who signed the Magna Carta.  
answer: King John of England (accept John Plantagenet or John Softsword or John Lackland)
8. This man dropped Mola Ram to his death by cutting a rope bridge while he himself was still standing on it; later he married Marion Ravenwood after learning he had a son, (*) Henry III ["the third"], who went by “Mutt.” For 10 points—name this heroic archaeologist who often relies on a whip.

answer: Indiana Jones (accept either underlined portion; accept H(eny) Jones Jr.; prompt on “H(eny) Jones” or “Indy”)

9. The Morse equation says this quantity equals the product of molarity [moh-“LAI-er”-ih-tee], temperature, the gas constant and the van’t Hoff [vahnt-HOFF] factor. An uppercase (*) pi symbolizes this colligative [kuh-LIG-uh-tee] property. For 10 points—name this pressure needed to stop the namesake flow of water across a semipermeable membrane.

answer: osmotic pressure [ahz-MAH-тик] (accept osmotic after “pressure”)

10. This document was intercepted by Room 40 as it was passed from a foreign secretary to ambassador Heinrich von Eckhardt. Germany promised to return portions of the southwestern U.S. to (*) Mexico in exchange for an alliance in World War I in—for 10 points—what intercepted “telegram?”

answer: Zimmermann Telegram (accept equivalents containing “Zimmermann” such as Zimmermann Note)

11. This film character captures Leonid Pavel, forces him to make a neutron bomb only Pavel can defuse, then publicly kills him in Gotham (*) City Stadium. For 10 points—name this masked villain played by Tom Hardy who breaks Batman’s back in the film The Dark Knight Rises.

answer: Bane

12. Friedrich Bergius won a Nobel prize for developing a method to hydrogenate this substance for liquefaction. By compactifying peat, the low-grade lignite [LIG-“night”] form of this rock is produced. Anthracite [ANN-thruh-“sight”] and (*) “bituminous” [bih-TOO-mih-nus] are forms of—for 10 points—what most commonly burned fossil fuel?

answer: coal (accept bituminous coal before “lignite”)

13. This man examined the working conditions of miners and people living in the West Midlands in The Road to Wigan Pier. Syme works on a dictionary of Newspeak ["new-speak"] in a book by this man depicting (*) Winston Smith’s resistance to Big Brother. For 10 points—name this author of Nineteen Eighty-Four.

answer: George Orwell (or Eric Arthur Blair)

14. The Kara-Bogaz-Gol [KAH-ruh boh-GAHZ GOHL] is an eastern lagoon of this body of water. The capital city of Baku [bah-KOO] juts into the western shore of this body of water, which contains the mouths of the Ural [YOO-rul] and Volga Rivers. (*) Azerbaijan [ah-zer-bah-ZAN], Russia, and Kazakhstan [KAH-zak-STAN] all border—for 10 points—what “sea” in central Asia?

answer: Caspian Sea

15. In 2008, this man won Olympic gold in doubles with fellow countryman Stan Wawrinka [vah-VREENG-kah]. In 2009 he completed a career slam at the French Open, where he has been defeated in the final four times by rival (*) Rafael Nadal [ruh-DAHL]. For 10 points—what Swiss tennis player has won 17 grand slam titles?

answer: Roger Federer

16. This poet described a tune heard “on the strangest Sea” in “’Hope is the thing with feathers.” This poet’s sister Lavinia worked to publish her poems, which only occurred (*) posthumously. For 10 points—what “belle of Amherst” depicted a trip to heaven in “Because I could not stop for Death?”

answer: Emily (Elizabeth) Dickinson

17. A double portrait by this man includes a glass bell jar at the foot of Antoine Lavoisier [lah-VWAH-zee-ay]. A man with a towel wrapped around his head, who has just been killed by Charlotte (*) Corday [kor-DAY], is the subject of another of his paintings. For 10 points—name this French painter of The Death of Marat.

answer: Jacques-Louis David [zhahk loo-ee dah-veed]
18. This world leader described anti-immigrant riots at Heidenau as “shameful” in August 2015. This namesake of a “rhombus” hand gesture is the leader of the (*) Christian Democratic Union and heads the largest economy in the Eurozone. For 10 points—name this chancellor of Germany.
answer: Angela [AHN-geh-lah MAIR-kul] (or Angela Dorothea Kasner)

19. In one show that airs on this network, a company named Pied Piper wins a “Disrupt Cup” for creating a compression algorithm [AL-guh-‘rhythm’]. This network that airs (*) Silicon Valley also broadcasts a show based on books by George R. R. Martin. For 10 points—name this cable network that airs Game of Thrones.
answer: HBO (or Home Box Office)

20. This explorer’s “foster father” Tyrker [TEER-kur] discovered grapes near their settlement at L’Anse aux Meadows [lahnss aw ‘meadows’] in northern Newfoundland [NEW-fun-lund]. In AD 1000 he discovered (*) “Vinland” after setting sail from Greenland. For 10 points—name this Norse explorer who spotted the Americas, the son of Erik the Red.
answer: Leif Ericson (or Leif the Lucky or Leifur Eiríksson; accept any underlined portion)

21. In a pair of works, this thinker criticized Robert Filmer’s Patriarcha [‘patriarch’-uh] and argued for the labor theory of property while presenting a benign depiction of the (*) state of nature. For 10 points—name this English thinker whose Two Treatises of Government influenced the American Revolution.
answer: John Locke

22. In one work by this author, a philosopher is compared to a gadfly who stings a lazy horse. This man wrote about the nature of piety in Euthyphro [YOO-thih-froh] and about the immortality of the (*) soul in Phaedo [FYE-doh]. For 10 points—name this student of Socrates [SAH-kruh-teez] who wrote the Apology and Republic.
answer: Plato

23. In 1968 this former legislator led a namesake “brigade” to Washington, D.C. to protest the Vietnam War. In 1941 this representative from Montana’s First District was the only member of the House to vote against entering (*) World War II. For 10 points—name this first woman elected to Congress.
answer: Jeannette (Pickering) Rankin (accept Jeannette Rankin Brigade)

24. This play’s protagonist states, “The fewer men, the greater share of honor” after his “cousin Westmoreland” wishes for more troops. A “band of brothers” is led into battle on (*) St. Crispin’s Day in—for 10 points—what history play by Shakespeare that depicts the title king’s triumph at Agincourt [AH-zhin-koor]?
answer: Henry V [‘the fifth’] (accept The Life of Henry the Fifth or The Chronic History of Henry the Fifth)
1. For 10 points each—answer the following about the Counter-Reformation:
   A. The Counter-Reformation was the Catholic response to the Protestant Reformation, which began after this German reformer wrote his *Ninety-Five Theses*.
      answer: Martin Luther
   B. The bulk of the Counter-Reformation was effected by this church council, first convened in its namesake Italian city by Pope Paul III in 1545.
      answer: Council of Trent
   C. The Council of Trent also contested the teachings of this Swiss reformer based in Zurich [ZOO-rik], who debated Martin Luther at the Marburg Colloquy [KOL-uh-kwee].
      answer: Huldrych (or Ulrich) Zwingli [HUL-drik z'WING-lee]

2. A person talking can be heard—but not seen—around a corner. For 10 points each—
   A. That is because the magnitude of this effect for sound waves is much greater than it is for light waves.
      answer: diffraction or diffracting (do not accept or prompt on “interference” or “refraction” or “bending” or “interference”)
   B. Diffraction is strongest for spatially extended waves; that is, those for which this crest-to-crest distance is the largest.
      answer: wavelength (prompt on “length”)
   C. Diffraction underlies the interference fringes sketched by this English physicist who performed the two-slit experiment in 1803.
      answer: Thomas Young (accept Young’s double-slit experiment)

3. For 10 points each—answer the following about paint:
   A. This type of paint consists of a dye or pigment mixed in with a binder, often egg yolk.
      answer: (egg) tempera [TEM-pur-ah]
   B. In this technique, painting is applied to freshly laid lime plaster. The paintings in the Sistine Chapel were done in this style.
      answer: fresco(es)
   C. To create paint in the ultramarine shade of this color, many artists ground up lapis lazuli [LAP-iss LAH-zuh-lee] and mixed it with their paint.
      answer: blue
4. John Rolfe played an important role in the early history of Virginia. For 10 points each—
A. Rolfe was aboard the Sea Venture when it delivered supplies to this city in Virginia. John Smith led this first permanent English settlement in the New World.
answer: Jamestown
B. After Jamestown's infamous "Starving Time," Rolfe introduced this cash crop to the area. It remained the primary export of colonial Virginia.
answer: tobacco (or Nicotiana tabacum)
C. John Rolfe married Pocahontas, the daughter of this Native American chief whose confederacy ruled eastern Virginia.
answer: Powhatan [poh-HAH-tun] (or Wahunsonacock; accept Powhatan Confederacy)

5. For 10 points each—answer the following about light years:
A. Light years are a unit for measuring this physical quantity.
answer: distance or length
B. There are approximately 63,240 of these units in one light year. This unit is almost exactly the average distance from the Earth to the Sun.
answer: astronomical units (or AU)
C. There are approximately 3.25 light years in one of these units, which are defined as the distance at which one astronomical unit subtends an angle of one arcsecond.
answer: parsecs [PAR-seks] (or parallax arcsecond; do not accept or prompt on "parallax" alone)

6. This author's most controversial novel depicted the suicide of a doctor's wife in provincial France. For 10 points each—
A. Name this author of Madame Bovary [boh-vah-ree].
answer: Gustave Flaubert [goo-stahv floh-bair]
B. Flaubert's novel Salammbô [sah-lom-BOH] is set in this ancient city during the aftermath of this city's First Punic War with Rome.
answer: Cartaghe (or Carthago or Kart-hadasht)
C. In Flaubert's short story "Hérodias" [huh-ROH-dee-us], Hérodias's daughter is revealed to be this biblical figure after she performs an erotic dance.
answer: Salomé

7. In 1934, this man promulgated the Surname Law, forcing Muslims in his country to adopt last names. For 10 points each—
A. Name this leader who took as his own surname a word meaning "father" of his people.
answer: Mustafa Kemal Atatürk [kay-MAHL AT-uh-turk] (accept either underlined portion)
B. Atatürk was, until his 1938 death, the president of this country, whose city of Istanbul straddles the divide between Europe and Asia.
answer: (Republic of) Turkey (or Türkiye Cumhuriyeti)
C. Atatürk rose to prominence defending Turkey against a disastrous British invasion of the Dardanelles in this World War I campaign.
answer: Gallipoli Campaign (or Battle of Gallipoli or Battle of Çanakkale)
8. For 10 points each—answer the following about the “Black Sox” scandal of 1919:
A. The White Sox from this city were labeled the “Black Sox” after it was discovered that they had thrown the World Series.
answer: **Chicago, Illinois**
B. This White Sox player, nicknamed “Shoeless Joe,” was banned from baseball as a result of the scandal.
answer: **Shoeless Joe Jackson** (or Joseph Jefferson Jackson)
C. This National League team won the 1919 World Series. This team’s current infield includes Joey Votto and Todd Frazier.
answer: **Cincinnati Reds** (accept either underlined portion)

9. For 10 points each—name these young residents of Shakespeare’s Verona who die from stab wounds:
A. This teenager cries, “O happy dagger! This is thy sheath!” before stabbing herself with a weapon that belonged to her husband Romeo.
answer: **Juliet Capulet** (accept Romeo and Juliet; prompt on “Capulet”)
B. This friend of Romeo is stabbed to death in a duel with Juliet’s cousin Tybalt [TIH-bult].
answer: **Mercutio** [mer-KYOO-shu-oh]
C. This kinsman of Mercutio asks to be placed in Juliet’s tomb after being stabbed in a sword fight with Romeo.
answer: **Count(y) Paris**

10. The sinking of this ship in 1915 helped prompt the United States to enter World War I. For 10 points each—
A. Name this British sea vessel, an ocean liner whose destruction led to the deaths of almost 1,200 people.
answer: **RMS Lusitania** (LOO-sih-TAY-nee-uh)
B. Lusitania was a Roman province covering this modern-day nation, whose capital is Lisbon.
answer: **Portugal** (or Portuguese Republic or República Portuguesa)
C. The ancient Lusitanian language belonged to this language family, which includes such modern-day tongues as English, Russian, and Portuguese.
answer: **Indo-European**

11. This country is home to the Malagasy people, who name one of its two official languages. For 10 points each—
A. Name this African island nation that lies off the southeastern coast of the continental mainland.
answer: (Republic of) **Madagascar** (or République de Madagascar or Repoblikan’i Madagasikara)
B. This other official language of Madagascar is also the only official language of the Ivory Coast.
answer: **French** or **le français**
C. The “ring-tailed” is one type of these primates that are endemic to Madagascar, meaning that they are found nowhere else on earth.
answer: **lemurs** (LEE-mur) (or **lemuroidea**)

12. This element is used in incandescent light bulb filaments. For 10 points each—
A. Name this metal with atomic symbol **W**.
answer: **tungsten**
B. Tungsten belongs to this group of metals whose atoms or ions have partially filled **d** subshells. These metals also include nickel.
answer: **transition metals** (or **transition elements**; prompt on “**d** block (metal(s))”)
C. Tungsten compounds are often used as catalysts, which speed up reactions by lowering this energy for the reaction.
answer: **activation energy**
13. This man was accused of molesting his sisters in May 2015, leading to the cancellation of 19 Kids and Counting. For 10 points each—
   A. Name this lobbyist for the Family Research Council.
   answer: Josh Duggar
   B. This former Arkansas governor and current Republican presidential candidate defended Duggar.
   answer: Mike Huckabee (or Michael Dale Huckabee)
   C. Duggar was among the prominent names on the leaked database of this affair-facilitation website’s users.
   answer: Ashley Madison (or AshleyMadison.com)

14. For 10 points each—name these Russian tsars:
   A. The title “Tsar of All Russia” was first used by this 16th-century Russian ruler who built St. Basil’s Cathedral and created a standing army called the streltsy [STRELT-see]. He earned his nickname for his fearsomeness.
   answer: Ivan the Terrible (or Ivan IV [“the fourth”] Vasilyevich or Ivan Grozny; prompt on “Ivan”)  
   B. The streltsy were disbanded by this Russian tsar who built a namesake northern capital as part of his modernizing reforms.
   answer: Peter the Great (or Peter I of Russia or Pyotr I or Pyotr Velikiy; prompt on “Peter” or “Pyotr”) [That capital is Saint Petersburg.]  
   C. In 1762 the guards regiments that replaced the streltsy overthrew Peter’s grandson Peter III [“the third”] in favor of this ruler who patronized Voltaire [vohl-tair] and overcame Pugachev’s Rebellion.
   answer: Catherine the Great (or Catherine II of Russia or Yekaterina Velikaya or Yekaterina II or Sophie Friederike Auguste von Anhalt-Zerbst-Dornburg; prompt on “Catherine” or “Yekaterina”)  

15. For 10 points each—name these cities in the state of Washington:
   A. The Space Needle and Jimi Hendrix Park are in this most populous city in Washington.
   answer: Seattle
   B. Evergreen State College is in this capital of Washington, which is about 60 miles from Seattle.
   answer: Olympia
   C. This city, which is only about 20 miles from the border with Idaho, shares its name with a river that flows from Lake Cœur d’Alene [kor duh-“LANE”].
   answer: Spokane [spoh-KAN]

16. In Greek mythology, these beings ruled the world before the rise of the Olympians. For 10 points each—
   A. Name these beings led by Cronus and Rhea.
   answer: Titans
   B. Cronus overthrew his father Uranus by castrating him, resulting in the birth of this Olympian goddess of love and beauty.
   answer: Aphrodite [af-roh-“DIE”-tee]
   C. Two of the Olympians were children of the Titaness Leto [LEE-toh], who gave birth to them on the floating island of Delos [DEE-lahe]. Name either of them.
   answer: Artemis
   Apollo
17. This man had a number-one hit with his 1968 version of the song “I Heard It Through the Grapevine.” For 10 points each—
A. Name this Motown singer of the hits “What’s Going On,” “Ain’t No Mountain High Enough,” and “How Sweet It Is.”
answer: Marvin Gaye (or Marvin Pentz Gaye Jr.)
B. “Marvin Gaye” titles a 2015 song performed by Charlie Puth and this singer, who also sang “All About That Bass.”
answer: Meghan (Elizabeth) Trainor
C. Marvin Gaye’s family won a 2015 lawsuit against Robin Thicke and Pharrell Williams, the writers of this song, which was based heavily on Gaye’s 1977 song “Got to Give it Up.”
answer: Blurred Lines

18. This man was heckled in parliament by the Movement for Democratic Change in August 2015. For 10 points each—
A. Name this 91-year-old man, effectively the dictator of his country since 1980, who has won several disputed elections over Morgan Tsvangirai [CHAHN-guh-rye].
answer: Robert (Gabriel) Mugabe
B. Mugabe is the president of this African country, formerly known as Rhodesia. “Cecil the lion” was killed here in 2015.
answer: (Republic of) Zimbabwe
C. Mugabe was booed while addressing economic issues in Zimbabwe; his rule was challenged in the mid-2000s when this phenomenon made the currency worthless because prices were doubling almost daily.
answer: hyperinflation (prompt on “inflation”)<386960>

19. One population of this species migrates thousands of miles to Mexico every winter. For 10 points each—
A. Name this milkweed butterfly species that has similar black-and-orange coloration to the slightly smaller viceroy butterfly.
answer: monarch butterfly (or Danaus plexippus)
B. The similarity between the viceroy and monarch butterflies is an example of the Müllerian [moo-LAY-ree-un] type of this natural strategy used to escape predators.
answer: mimicry (accept Müllerian mimicry)
C. Another natural mimic is the scarlet kingsnake, which has red, yellow, and black bands similar to those of this venomous North American snake of genus Micrurus [mye-KROO-russ].
answer: coral snake<388194>

20. Expansions to this video game include Cataclysm and Mists of Pandaria [pan-’dare-ee-uh]. For 10 points each—
A. Name this massively multiplayer online role-playing game produced by Blizzard Entertainment.
answer: World of Warcraft (accept WoW; prompt on “Warcraft”)
B. The original entry in the Warcraft series focused on the battle between humans and these creatures. In The Elder Scrolls series of games, the race of these creatures is called Orsimer.
answer: orcs (do not accept or prompt on “goblin(s)”)
C. Tyrande [tye-rand] Whisperwind and Malfurion [mal-fur-ee-on] Stormrage are leaders of this race of elves, introduced to the Warcraft series in its third installment.
answer: night elf (or night elves)<387422>
21. For 10 points each—answer the following about the writer Ambrose Bierce [rhymes with “fierce”]:
A. In 1913, Bierce disappeared after traveling to this country, where he may have met the revolutionary Pancho Villa [PAHN-choh VEE-yah].
answer: Mexico (or United Mexican States or Estados Unidos Mexicanos)
B. The Confederate Peyton Farquhar [PAY-tun “FAR”-kwar] is condemned to hang in this Bierce story with a twist ending.
answer: An Occurrence at Owl Creek Bridge
C. Bierce defined “Peace” as “a period of cheating between two periods of fighting” in this lexicon that was originally titled The Cynic’s Word Book.
answer: The Devil's Dictionary

22. For 10 points each—answer these questions about bubbles:
A. The inside of a bubble contains what phase of matter?
answer: gas (or vapor)
B. “Bubble” is the nickname of an algorithm that does what operation to a list? It works by comparing adjacent elements and swapping them if necessary.
answer: sorting (a list) (accept bubble sort; accept ordering)
C. Bubble chambers are a more modern version of what scientific instruments, in which a mist forms around charged particles?
answer: cloud chambers

23. This Supreme Court case was decided alongside the companion case Doe v. Bolton. For 10 points each—
A. Name this 1973 Supreme Court decision holding that, prior to a fetus's viability, a woman has the right to an abortion.
answer: Roe v. Wade (accept Jane Roe (et al.) v. Henry Wade)
B. Harry Blackmun’s opinion in the case ruled that the ban on abortions violated the defendant’s right to this, which had been established in Griswold v. Connecticut.
answer: right to (or of) privacy
C. Roe v. Wade arose from Norma McCorvey's attempts to obtain an abortion in this state. In 2003, the Supreme Court struck down this state’s sodomy ban in Lawrence v. it.
answer: Texas (accept Lawrence v. Texas)

24. It is the ratio of a circle’s circumference to its diameter. For 10 points each—
A. Give this irrational number that is approximately 3.14.
answer: π
B. Yann Martel’s novel Life of Pi depicts a boy who is stranded at sea with an animal of this type named Richard Parker. Clemson’s sports teams are known by this name.
answer: tiger (accept Panthera tigris)
C. The 2012 film version of Life of Pi was directed by this Taiwanese filmmaker, whose other movies include Crouching Tiger, Hidden Dragon.
answer: Ang Lee