1. The caudate lobe is found on the right portion of this organ. This organ contains a group of macrophages called Kupffer cells. Gluconeogenesis and cholesterol synthesis both largely occur in this organ which is also responsible for hemoglobin degradation. Additionally, this organ produces a fluid used in lipid digestion called (*) bile. Alcoholism can cause a degeneration of this organ in cirrhosis, and this organ is inflamed in a condition called hepatitis. For 10 points, name this largest internal organ which plays a key role in detoxification in the body.
ANSWER: liver
2. This country was the location of the Ogaden War, which occurred during the time when Colonel Mengistu led this country as the head of a committee called the Derg. Many of its forces in the nineteenth century were organized by Ras Gobena, an ally of its emperor (*) Menelik II. It fought a series of wars against Italy that included the Battle of Adowa. For many years during the twentieth century this country was ruled by Haile Selassie. For 10 points, name this African nation, sometimes called Abyssinia, with capital Addis Ababa.
ANSWER: Federal Democratic Republic of Ethiopia [or Ityop'iya Federalawi Demokrasiyawi Ripeblik]
040-10-23-01103
3. This poet wrote that "Dust thou art, to dust returnest, was not spoken of the soul" in the poem "A Psalm of Life." His poem 'Mezzo Cammin' was inspired by his translation of the Divine Comedy. He wrote an epic poem in which Gabriel Lajeunesse loves the title character, who is expelled along with the rest of the Acadians. This author of (*) Evangeline also wrote an epic poem whose title character is the lover of Minnehaha. For 10 points, name this poet of The Song of Hiawatha and "Paul Revere's Ride." ANSWER: Henry Wadsworth Longfellow

024-10-23-01104
4. One character in these operas derives his power from the treaties on his spear and loses power when it is broken; that character is given a warning by the earth goddess, Erda. The dwarf Alberich renounces love in order to gain this series' titular object, which he cursed so that anyone who owns it will be killed. It ends with the Rhine overflowing as (*) Valhalla burns down. Comprised of The Rhinegold, The Valkyries, Siegfried, and Twilight of the Gods, for 10 points, name this series of four operas by Richard Wagner (VAHG-nur).
ANSWER: Ring Cycle [or Der Ring des Nibelungen; or The $\underline{\text { Ring of the Nibelungs] }}$
5. The phrase 'war feeds itself'" is primarily applied to this conflict. The Battle of Wittstock occurred during this conflict, which also saw a French victory against the Spanish at Rocroi. Ferdinand II's victory at White Mountain during this conflict led to the dissolution of the Protestant Union. This war started after the Second (*) Defenestration of Prague. Military leaders in this conflict included Albrecht von Wallentstein and Gustavus Adolphus. For 10 points, name this war ended by the Peace of Westphalia in 1648.
ANSWER: Thirty Years' War
6. A merchant ship found buried in this body of water is named for one of its coastal cities, Sinop. One explanation of its name is that $\mathbf{9 0 \%}$ of this body of water lacks oxygen and contains the most abundant levels of hydrogen sulfide in the world. The Strait of Kerch connects this body of water to the Sea of ${ }^{(*)}$ Azov, while it is connected to the Sea of Marmara by the Bosporus Strait. Sochi, the site of the 2014 Winter Olympics, lies on this body of water, as do the cities of Sevastopol, Yalta, and Odessa. For 10 points, name this large sea of Eastern Europe that lies north of Turkey.
ANSWER: Black Sea
064-10-23-01107
7. Common mode noise is caused by the parasitic form of this quantity. One type of reactance is equal to one over the quantity omega times this quantity. For one type of device, it is proportional to the permeability of free space times area. It is additive in parallel circuits. Current is equal to this quantity times the time derivative of (*) voltage. Adding a dielectric to a device made of two parallel plates increases this quantity. For 10 points, name this quantity measured in farads.
ANSWER: capacitance [prompt on $\mathbf{C}$ ]
003-10-23-01108
8. One story in this novel concerns Samuel and Corrine, missionaries that take in two characters later revealed to be the children of an incestuous relationship between the main character and her father. The main character threatens to serve her father-in-law another woman's urine after he insults Shug (*) Avery, an entertainer the main character eventually leaves for Tennessee with. For 10 points, name this novel consisting mostly of letters written to God and Nettie by Celie, the best-known work of Alice Walker.
ANSWER: The Color Purple
003-10-23-01109
9. One doctrine held by this religious group is "occultation", which claims that the Mahdi was born but disappeared from human contact. Sects within this group include the more mystical Ismailis, and the majority Twelvers. These adherents believe in a series of divinely appointed imams and reject the caliphs in favor of Muhammad's (*) cousin Ali. This group is currently most prominent in Iraq and Iran. For 10 points, name this smaller of the two major branches of Islam, along with Sunni.
ANSWER: Shi'a Islam [or Shi'ite; prompt on Islam; accept Twelvers before "Ismailis"]
082-10-23-01110
10. This team acquired both Mike Vrabel and its current starting quarterback in trades with the Patriots. Its star receiver scored the most touchdowns of any wideout in $\left(^{*}\right)$ 2010. This team also features the running back with the highest yards per carry average in NFL history, Jamaal Charles. For 10 points, name this team that stars Dwayne Bowe and Matt Cassel, which plays its home games in Arrowhead Stadium in western Missouri.
ANSWER: Kansas City Chiefs [accept either]
11. One tomb of a king from this region is named for the depiction of a eight-legged, 'Heavenly" horse found there. The fourth king of one dynasty from this region developed an alphabet still used today. A general from this region used (*) turtle-ships to repel a Japanese invasion in the 1590s. Like China, it had a Three Kingdoms period, which was dominated by Baekje, Silla, and Goguryeo. The Choson Dynasty ruled it into the twentieth century, during which it was split into two countries. For 10 points, name this peninsula whose "North" and "South" are still at war.
ANSWER: Korean peninsula [or Hangook bando; or Choson bando]
12. An alternative pathway to emission of this kind of radiation is the Auger Effect, which uses the same nomenclature. It can be divided into "hard" and "soft" types, and like a lower-energy kind of radiation, undergoes Compton scattering. This section of the electromagnetic spectrum has a shorter wavelength than $\left(^{*}\right)$ ultraviolet light, and lower energy than gamma rays. For 10 points, name this kind of radiation discovered by Wilhelm Roentgen, which is often used in medical imaging.
ANSWER: X-rays [or X-radiation; or Roentgen rays before "Roentgen"]
003-10-23-01113
13. This man was the defense attorney in a case in which Rev. James Maury sued over a decrease in the amount of tobacco payed to the clergy. That case was known as the Parson's Cause. After Lord Dunnmore removed gunpowder from the Williamsburg armory, this man lead a militia against Lord Dunnmore. This man was the first post colonial Governor of Virginia. His most famous action was a ${ }^{(*)}$ speech given at St. John's Church in Richmond. For 10 points, name this man who gave a speech ending with the phrase "Give me Liberty, or give me Death!"
ANSWER: Patrick Henry
001-10-23-01114
14. Near the end of this play, characters debate whether a boy is actually dead or only pretending, after hearing the sound of a gunshot from offstage. Earlier, the audience learns that a man had sent away his wife to live with his secretary, and had later attempted to seduce his new stepdaughter at Madame Pace's dress shop. Ultimately, a small girl drowns in a fountain, and the stage (*) manager complains about losing an entire day of rehearsal. For 10 points, identify this work, in which the title figures demand another play be written about them, a play by Luigi Pirandello.
ANSWER: Six Characters in Search of an Author [or Sei personaggi in cerca d'autore: Commedia da fare]

019-10-23-01115
15. Removal of one of these objects from a carbonyl creates an enolate. Their magnetic resonance is used in the form of NMR that has typical chemical shifts of zero to twelve. One of them is transformed in electron capture. While they do not exist freely in solution, they can combine with water to form a ${ }^{*}$ ) hydronium ("high"-DRO-nee-um) ion. The Bronsted-Lowry definition describes acids as donators of these particles. For 10 points, name this positive particle found in the nucleus. ANSWER: proton [or $\underline{\mathbf{H}}^{ \pm}$; or hydrogen nucleus; prompt on hydrogen]

001-10-23-01116
16. Sixteen or thirty-two of these instruments are featured in Fantasia Concertante by Heitor

Villa-Lobos. Twelve concertos for this instrument were composed by Luigi Boccherini (BAH-kuh-REE-nee). J.S. Bach wrote six suites for an unaccompanied one. It depicts the swan in Carnival of the Animals. Notable players of it include Mstislav Rostropovich (mis-tih-slahv ROSS-truh-POH-vitch), (*) Pablo Cassals, and Yo-Yo Ma. For 10 points, name this large stringed instrument.
ANSWER: cellos [or celli]
17. This man's first political office was on the board of trustees of Union Township, and in 2006, he authored the Pension Protection Act of 2006. This man was criticized by some members of his own party for reaching a compromise on the $\left(^{*}\right.$ ) extension of Bush-era tax cuts with President Obama, and attained his current office by replacing Nancy Pelosi after the November midterm elections. For 10 points, name this Republican Representative from Ohio, the current Speaker of the House.
ANSWER: John Boehner
18. One building designed by this architect has ventilation towers made to look like faces and has a central atrium open to the sky. One of his works contains a large undulating bench, and near the entrance of that work sits a large mosaic lizard. His most famous work depicts the life of Jesus on the facades, and its eighteen (*) bell towers depict Jesus, Mary, the evangelists and the apostles. That church is projected to be finished in 2025. For 10 points, name this Spanish architect of the Segrada Familia. ANSWER: Antonio Gaudí

085-10-23-01119
19. This figure is accidentally invited to a party by the illiterate Peter, and at that celebration is lectured about Queen Mab by one of his friends. This character attends that party in the hope of catching a glimpse of Rosaline, but instead falls in love with a different woman. This rival of Count Paris eventually develops a plan with Father (*) Lawrence to feign death in order to be with that woman, who declares that "a rose by any other name would smell as sweet," though he is, along with Benvolio, a Montague, and she is a Capulet. For 10 points, name this lover of Juliet.
ANSWER: Romeo Montague
081-10-23-01120
20. The brothers Plexippus and Toxeus were killed over the pelt of one of these animals, one of which was captured shortly after the death of the centaur Pholus. That animal was captured after it had been driven into a snow bank and caused King Eurystheus to hide in a bronze jar. Since King Oeneus did not pay tribute to her, Artemis sent one of these creatures to rampage the countryside; that animal was killed by (*) Meleager, who attempted to award its pelt to Atalanta. For 10 points, name this animal which had Erymanthian and Calydonian varieties.
ANSWER: wild boar [prompt on wild pig]
083-10-23-01121
21. In this work, a cherry on a string attached to a stick is hung in front of a flying animal, while on the right, a pig is comically dressed in a nun's outfit. A cave expelling many birds and a pink fountain can be seen on its left side, while in this work's center people ride various animals around a circular lake. Although this work's right panel depicts torture and the horrors of Hell, the majority of this painted work depicts a ${ }^{(*)}$ paradise filled with extravagance in contrast with the simplicity of Eden. For 10 points, name this triptych by Hieronymus Bosch.
ANSWER: The Garden of Earthly Delights
22. This man insisted that he was lobbying for a relaxation of sugar rations to help beet farmers in his constituency, leading to his nickname as the "Pepsi-Cola Kid." The Hennings report questioned various aspects of this man's finances. Millard Tydings led a committee that challenged this man. During a course of hearings this man had with the (*) Army, Joseph Welch asked him if he had "no sense of decency." For 10 points, name this Senator from Wisconsin who led the communist "witch hunts" during the 1950s.
ANSWER: Joseph Raymond McCarthy
23. This work predicted the existence of Phobos and Deimos over a hundred years before their discovery. One conflict in this novel is between believers in Big-Endian and Little-Endian ways of thinking. The protagonist converses with Alexander the Great and Hannibal while staying with the sorcerers of Glubbdubdrib. This work includes the floating island of (*) Laputa and the land of Lilliput, the latter of which is inhabited by tiny people. For 10 points, name this work by Jonathan Swift that sees the title character visit fantastical lands.
ANSWER: Gulliver's Travels

Tournament 16
Round 1

1. This character is sent to jail after he attacks his wife's rapist, Phil Connor. For 10 points each:
[10] Name this literary character, a Lithuanian immigrant who is exploited by the Chicago political boss
Mike Scully before he eventually becomes an ardent Socialist at the end of the novel.
ANSWER: Jurgis Rudkus [or Jurgis Rudkus]
[10] Jurgis Rudkus is the protagonist of this muckraking author's expose of the meatpacking industry, The Jungle.
ANSWER: Upton Beall Sinclair Jr.
[10] Sinclair also wrote this 1927 novel about "Bunny" Ross, who also eventually becomes an ardent
Socialist. This novel takes its one-word title from the commodity which Bunny's father controls and has become rich off of.
ANSWER: Oil!
2. He delivers a speech about bravery and responsibility as O'Reilly in The Magnificent Seven. For 10 points each:
[10] Name this tough-guy actor of Lithuanian ancestry, who starred in five Death Wish movies. ANSWER: Charles Bronson
[10] Bronson plays Harmonica, a man seeking revenge for the death of his brother against the background of a railroad magnate's attempts to buy up land, in this 1968 Sergio Leone film.
ANSWER: Once Upon a Time in the West [or C'era una volta il West]
[10] The chief antagonist of Once Upon a Time in the West was played by Henry, an actor of this surname. His son Peter was in Easy Rider and his daughter Jane became known for 1960s activism.
ANSWER: Fonda
3. According to a 2006 poll of classical music listeners, this composer's greatest work is the 1778 clarinet concerto in A major that he wrote for Anton Stadler. For 10 points each:
[10] Name this child prodigy who grew up to compose the Jupiter symphony and The Marriage of Figaro. ANSWER: Johann Chrysostom Wolfgang Amadeus Mozart [or Johannes Chrysostomus Wolfgangus Theophilus Mozart]
[10] This late work of Mozart was completed by Franz Sussmayr and debuted at Mozart's own funeral. It includes a "dies irae."
ANSWER: Mozart's requiem mass in C minor [prompt on mass in C minor]
[10] This Mozart symphony, composed just before the Jupiter, was nicknamed to distinguish it from his other G minor symphony and opens with a familiar molto allegro theme.
ANSWER: Great Symphony [or Symphony No. 40 in G minor]
4. One formulation of this equation states that the Hamiltonian times the wavefunction equals an energy level eigenvalue times the wavefunction. For 10 points each:
[10] Name this equation that describes the behavior of a quantum mechanical system.
ANSWER: Schrodinger equation
[10] This doubly-eponymous approximation simplifies the Schrodinger equation by letting the wavefunction equal the wavefunction of the nucleus times that of an electron.
ANSWER: Born-Oppenheimer approximation
[10] In the Born-Oppenheimer approximation, this quantity for an electron is set to zero. In classical mechanics, it equals one-half times mass times the square of velocity.
ANSWER: kinetic energy [prompt on energy]
5. This man denounced the "Bulgarian Horrors" during one election campaign. For 10 points each:
[10] Name this British statesman and four time Liberal Prime Minister. He is best known for his intense rivalry with Conservative Benjamin Disraeli.
ANSWER: William Ewart Gladstone
[10] Gladstone disliked Disraeli's foreign policies, particularly his activities in the so-called "Great Game," which saw much strategic and political conflict between England and this rival European nation. Both nations, however, became allies leading up to World War I.
ANSWER: Russia
[10] Gladstone was viciously attacked after this popular British general was killed at Khartoum in 1885 during Gladstone's ministry. This man previously commanded the "Ever Victorious Army" in China. ANSWER: Charles George Gordon

052-10-23-01205
6. Name these cities in Missouri for 10 points each:
[10] This capital of Missouri's landmarks include a "Walk of Fame" and the Gateway Arch.
ANSWER: St. Louis
[10] This largest city in Missouri is the headquarters of Sprint. It sits at the confluence of the Missouri and Kansas Rivers.
ANSWER: Kansas City
[10] This fourth largest city in Missouri is part of the Kansas City metropolitan area. It served as the point of departure for the Oregon Trail.
ANSWER: Independence
015-10-23-01206
7. This genetic disorder can be diagnosed by a sweat test. For 10 points each:
[10] Name this disease caused by a defect in its namesake conductance transmembrane regulator protein that sees mucus build up in the lungs and other organs.
ANSWER: Cystic fibrosis [or CE]
[10] Cystic fibrosis is this sort of genetic disorder where two copies of the mutant allele are required for the disease.
ANSWER: autosomal recessive
[10] One hypothesis about the prevalence of CF alleles in European populations is that it gives resistance against this disease caused by a serovar of Salmonella enterica. This disease was notably transmitted by a healthy cook in New York around the turn of the 20th century.
ANSWER: typhoid fever
8. This massive sculpture collection includes a depiction of Ugolino and His Children and a depiction of Paolo and Francesca called Fugit Amor. For 10 points each:
[10] Name this sculptural group which can be located at the artist's namesake museum in Paris.
ANSWER: Gates of Hell
[10] The Gates of Hell is a sculptural group created by this man, whose other sculptures include The Kiss and Balzac.
ANSWER: Auguste Rodin
[10] This Rodin sculpture was meant to depict Dante, and a miniature of this statue sits atop the Gates of Hell.
ANSWER: The Thinker
9. For 10 points each, answer the following about Aztec mythology:
[10] When Hernán Cortés arrived in Mexico in 1519, the Aztecs mistook him for this god, a "feathered serpent" who fights against Tezcatlipoca (tez-KAHT-lee-POH-kuh).
ANSWER: Quetzalcoatl (KET-zul-koh-AH-tul)
[10] Quetzalcoatl's mother, Coatlicue (koh-AHT-lee-"cue"), also gave birth to this hummingbird god of war, who emerged from the womb fully armed and killed his sister and 400 brothers.
ANSWER: Huitzilopochtli (WEET-see-loh-POHCH-tlee)
[10] Aztecs believed that they lived the age of the fifth one of these objects, as the first four had been destroyed.
ANSWER: suns
083-10-23-01209
10. The protagonist of this novel dreams about a group of peasants beating a horse to death. For 10 points each:
[10] Name this novel in which Raskolnikov murders a pawnbroker.
ANSWER: Crime and Punishment [or Pryestupleniye i Nakazaniye]
[10] Crime and Punishment was written by this author of The Brothers Karamazov and The Idiot.
ANSWER: Fyodor Mikhaylovich Dostoyevsky
[10] This Dostoyevsky novel deals with Alexei Ivanovich's addiction and his love for Polina Alexandrovna.
ANSWER: The Gambler [or Igrok]
024-10-23-01210
11. This man used camels to distract the opposing forces' cavalry at the Battle of Thymbra. For 10 points each:
[10] Name this Persian ruler and founder of the Achaemenid Empire.
ANSWER: Cyrus II [or Cyrus the Great; prompt on Cyrus]
[10] At the Battle of Thymbra, Cyrus the Great defeated forces of this empire located Western Turkey. According to Herodotus, they were the first to introduce gold and silver coinage.
ANSWER: Lydian Empire
[10] Among the later rulers of the Achaemenid Empire was this man, whose invasion of Greece saw him victorious at the Battle of Thermopylae.
ANSWER: Xerxes I [or Xerxes the Great; or Khshayarsha; prompt on Xerxes]
12. Negative deviations occur for this law in a mixture of strong hydrogen bonding. For 10 points each: [10] Name this law which states that the partial pressure of a component $i$ in a mixture equals its mole fraction times the pressure for the pure component.
ANSWER: Raoult's (rah-OOLT's) law
[10] Solutions of this type obey Raoult's law. Gases of this type obey a law that states that pressure times volume equals the number of moles times the gas constant times temperature.
ANSWER: ideal
[10] Raoult's law is similar to this other law which states the amount of gas that will go into solution is proportional to the partial pressure of the gas. It explains the bends that can affect divers.
ANSWER: Henry's law
064-10-23-01212
13. This man became the Governor of Arkansas in 1978. For 10 points each:
[10] Name this President who signed the Brady Act.
ANSWER: William Jefferson Clinton [or William Jefferson Blythe III]
[10] Clinton was impeached, but later acquitted, as a result of his affair with this White House intern.
ANSWER: Monica Samille Lewinsky
[10] This man, who was appointed Independent Counsel to investigate the Whitewater controversy, also investigated the Lewinsky scandal.
ANSWER: Kenneth Winston Starr
024-10-23-01213
14. For 10 points each, answer the following about the Japanese artist Katsushika Hokusai:
[10] Hokusai is best known for this series of woodblock prints, which includes The Bay of Noboto. Many of the entries in this series depict the titular mountain.
ANSWER: Thirty-six Views of Mt. Fuji [or Fugaku sanj?rokkei]
[10] This entry in Thirty-six Views of Mt. Fuji depicts men in blue huddled in longboats as the titular object towers above them.
ANSWER: The Great Wave off Kanagawa [prompt on The Great Wave; or Kanagawa Oki Nami Ura] [10] The woodblock prints comprising Thirty-six Views of Mt. Fuji fall into this category of prints whose name translates as "pictures of the floating world."
ANSWER: ukiyo-e
15. In a shape of this type, all connecting line segments between points lie within the shape. For 10 points each:
[10] Name this term which is the opposite of concave.
ANSWER: convex
[10] A sufficient and necessary condition for a twice differentiable function to be convex in an interval is that the second derivative is greater than or equal to this for all values in that interval.
ANSWER: zero
[10] The notions of convex and concave also apply to these generalizations of polygons and polyhedra in higher dimensions.
ANSWER: polytopes
16. The protagonist of this novel visits the golden carp with his friend Cico. For 10 points each:
[10] Name this novel by Rodolfo Anaya, in which Antonio Marez struggles to reconcile his respect for the title healer with his Catholic worldview.
ANSWER: Bless Me, Ultima
[10] In this series of vignettes by Sandra Cisneros, Esperanza suffers sexual abuse while growing up in the title structure.
ANSWER: The House on Mango Street
[10] Another Chicano author, Ana Castillo, wrote a novel entitled "So Far From" this figure. "Their Eyes Were Watching" this figure in the title of a Zora Neale Hurston novel.
ANSWER: God
17. This ruler combated the Arian heresy by calling for the Council of Nicaea. For 10 points each:
[10] Name this Roman emperor who was the first to adopt Christianity.
ANSWER: Constantine the Great [or Constantine I; or Flavius Valerius Constantinius; prompt on Constantine]
[10] Constantine adopted Christianity after seeing a sign before this battle, in which he defeated Maxentius to become ruler of the Western Roman Empire.
ANSWER: Battle of Milvian Bridge
[10] Constantine extended religious toleration to Christians in the edict he worked out with Licinius in this Italian city.
ANSWER: Edict of Milan
18. This woman is probably less known for her distinctive cape and walking stick than for works such as Sex and Temperament in Three Primitive Societies. For 10 points each:
[10] Name this cultural anthropologist whose most famous work had a forward by Franz Boas and examined the growth of pubescent girls on a certain island in the Pacific.
ANSWER: Margaret Mead
[10] Name that aforementioned work by Mead.
ANSWER: Coming of Age in Samoa
[10] This New Zealand anthropologist fiercely attacked Mead's work in Samoa, claiming that her sources lied to her, though recent accounts suggest that much of this man's criticism was overblown.
ANSWER: Derek Freeman
19. This hero lost a sandal while ferrying Hera across the River Anauros. For 10 points each:
[10] Name this hero who led the Argonauts.
ANSWER: Jason
[10] Jason married this witch from Colchis, who eventually killed their children.
ANSWER: Medea
[10] Medea also killed this young bride of Jason's using a poisoned robe.
ANSWER: Glauce [or Creusa]
20. It is framed around a storytelling competition judged by the innkeeper of the Tabard Inn. For 10 points each:
[10] Name this Geoffrey Chaucer work in which pilgrims tell stories while traveling to the grave of Thomas a Becket.
ANSWER: The Canterbury Tales
[10] In this Canterbury tale, Nicholas tricks a carpenter into sleeping in a tub during a nonexistent flood while Nicholas sleeps with the carpenter's wife Alison.
ANSWER: "The Miller's Tale"
[10] Since "The Miller's Tale" mocked a carpenter, this character tells a story in which John and Alan sleep with a miller's daughter and wife and steal the miller's goods.
ANSWER: the Reeve [or Oswald]
079-10-23-01220
21. In 2005, this body was explored by the Huygens probe. For 10 points each:
[10] Name this large moon, that has a significant atmosphere and lakes.
ANSWER: Titan
[10] Titan is a moon of this planet, around which yet another ring was discovered in 2009, at a much greater distance from the planet than its more famous ones.
ANSWER: Saturn
[10] This other moon of Saturn is responsible for creating the Cassini Division in Saturn's rings, but is probably most notable for a giant crater that closely resembles the Death Star's Superlaser.
ANSWER: Mimas

