Tossup

1. This U.S. President first established the Morrill land-grant colleges and signed a Revenue Act levying the first federal income tax. He appointed Salmon Chase as Chief Justice and pocket-vetoed the Wade-Davis Bill; that bill was far harsher than his plan requiring (*) $10 \%$ of a state's voters to support emancipation, which this President had proclaimed on January 1, 1863. For 10 points, name this U.S. President who served during the Civil War.
Answer: Abraham Lincoln
2. Some scholars believe this bodily process was once "segmented" between "first" and "second" stages. A CPAP machine is used to treat apnea during this process, and muscle paralysis often occurs during the (*) REM form of this process. Circadian rhythm regulates the cycle of this process, a lack of which is called insomnia. For 10 points, name this process which is recommended to last eight to 10 hours.
Answer: sleep
3. One character in this work steals a fountain pen after meeting with a past employer. That football player, son of the title character is distressed to find his father with "The Woman" in Boston. The title character's wife, (*) Linda, repeatedly says, "Attention must be paid," to her two sons, Happy and Biff, referring to her husband's failing mental health. For 10 points, name this Arthur Miller play that ends with Willy Loman's suicide.
Answer: Death of a Salesman
4. Muhammad described this man as being " 60 cubits tall," and Shaitan [shah-ee-tahn] was cast out of heaven for refusing to acknowledge this man's superiority to angels. In Jewish tradition, this man's first wife left him for Samael [sah-mah-ehl]. This husband of (*) Lilith was condemned to live "by the sweat of [his] brow," and he became the father of Seth after the death of this man's son, Abel. For 10 points, name this husband of Eve, the first human man created by God. Answer: Adam
5. This author defined the "enthymeme" as an argument lacking one or more obvious facts that the listener fills in by themselves. In another work, this author calls Solon the greatest lawgiver. In Prior Analytics, the third of six works on logic collected in the (*) Organon, he invented one valid form of deductive argument, the syllogism. The Lyceum was founded by, for 10 points, what Greek author of Rhetoric and Politics who studied under Plato?
Answer: Aristotle
6. In one novel set in this country, a glass church is transported hundreds of miles to settle a bet between Oscar and Lucinda. One author from this country described a factory owner who protected Jews during the Holocaust in Schindler's Ark. Jimmie Blacksmith and Ned Kelly live as (*) bushrangers in this country in works by Thomas Keneally and Peter Carey. The Outback is a common setting in, for 10 points, what large former British colony?
Answer: Commonwealth of Australia
7. This man issued the Megarian decree and earned an early political victory by ostracizing Cimon. This lover of Aspasia gave a funeral oration one year before dying of the plague during a war; that war was partially caused by his moving the treasury of the (*)Delian League to his home city, where it funded projects like the Parthenon. For 10 points, name this Greek statesman who led during the Golden Age of Athens.
Answer: Pericles
8. Sieverts' Law predicts this property of gases in metallurgy. Henry's Law measures this property in relationship to its partial pressure, and the common-ion effect can reduce it. The maximum limit for this property is determined by Ksp [K sub sp]. If (*) equilibrium is surpassed, supersaturation can occur. Immiscible substances like oil and water do not possess, for 10 points, what property, the ability of a substance to dissolve in another substance?
Answer: solubility (accept word forms)
9. A leader of one of these groups went missing outside the Machus Red Fox in 1975. Terence Powderly founded one that declined after Chicago police shot at protesters in Haymarket Square, and Jimmy Hoffa once led one called the (*) Teamsters. Wal-Mart switched to selling prepackaged meats after its meatcutters created one of these organizations. For 10 points, name these organizations that collectively bargain to achieve workplace goals.
Answer: Labor Unions
10. This artist painted a coffee mug sitting on a greenish nightstand in Breakfast in Bed. A baby in pink is held by a women sitting in the yellow interior of a boat in this one work by this artist, and another of this artist's paintings shows a woman in a striped dress washing a child's (*) feet. The artist of The Boating Party and The Child's Bath is, for 10 points, this female American Impressionist who frequently painted mothers and children.
Answer: Mary Stevenson Cassatt

Half Time
11. One novel by this author is narrated by Edward Malone, who encounters stegosauruses and pterodactyls in South America with Professor Challenger. This author wrote short stories in which a stolen diamond is fed to a goose and Jabez Wilson is employed by the (*) "RedHeaded League." He created a character who clashes with Professor Moriarty, and who lives with Dr. Watson at 221B Baker Street. For 10 points, name this creator of Sherlock Holmes. Answer: Sir Arthur (Ignatius) Conan Doyle (accept Sir Arthur (Ignatius) Conan Doyle)
12. This process may use a tokamak in its magnetic confinement type. In atoms heavier than iron, this process absorbs energy, and one example of it is the CNO cycle. It occurs when residual strong forces overcome electrostatic repulsion, which requires (*) high temperatures not present in a theoretical "cold" type of this process. Stars are fueled by, for 10 points, what process in which atomic nuclei combine into a larger one, contrasted with fission?
Answer: nuclear fusion (do not accept "fission")
13. After "Dr. Device" is used to end the Formic War in this novel, colonists begin a religion based on The Hive Queen. A character who named himself "Locke" in online discussions becomes Hegemon of Earth in this novel. Hyrum (*) Graff and Mazer Rackham teach this novel's protagonist, who clings to his friendships with Bean and his sister, Valentine. For 10 points, name this Orson Scott Card novel about Andrew Wiggin.
Answer: Ender's Game
14. This is the numerator of Egyptian fractions and the number of sides of a Möbius strip. It is repeated in the Fibonacci sequence and any nonzero number raised to the zeroth power equals (*) this value, the largest that the sine and cosine functions take. This number is the multiplicative identity because it times any other number is the original number. For 10 points, name this smallest positive integer.
Answer: one (accept unity)
15. In a 2007 film, this actor sang "How gratifying, for once, to know / that those above will serve those down below." He performed the Futterwacken dance and played Sweeney Todd in films with frequent co-star (*) Helena Bonham Carter, and starred as Edward Scissorhands in another collaboration with Tim Burton. Captain Jack Sparrow is played by, for 10 points, what costar of Orlando Bloom in the Pirates of the Caribbean films?
Answer: John Christopher "Johnny" Depp
16. One ruler during these conflicts was captured at the battle of Northampton and then recaptured at the second battle of St. Albans. The winner of these conflicts faced a rebellion by Perkin Warbeck. They ended when Lord (*) Stanley's forces joined in an attack on the overextended Richard III. The Battle of Bosworth Field decided, for 10 points, what civil wars that resulted in Henry Tudor uniting the English houses of York and Lancaster?
Answer: Wars of the Roses (all underlined portions required)
17. The Phoenix Mars Lander observed this type of cloud, which absorb outgoing infrared radiation but fail to deflect incoming sunlight, leading to a net heating effect. They can originate from the glaciation of other clouds, and (*) jet contrails are a man-made form of these clouds. They are generally found in the upper atmosphere and are often associated with fair weather. For 10 points, identify this wispy type of cloud made of ice crystals.
Answer: cirrus clouds (prompt on clouds)
18. This composer wrote three Venetian boat songs for piano, and his fifth symphony honored an anniversary of the Augsburg Confession. This composer of Songs Without Words was inspired by the sight of (*) Fingal's Cave to write the Hebrides Overture. The Reformation, Italian, and Scottish symphonies were composed by, for 10 points, what German composer whose "Wedding March" was written as incidental music for A Midsummer Night's Dream?
Answer: Felix Mendelssohn-Bartholdy
19. Francisco Ximénez translated this civilization's collection of myths, including a tale of wooden people killed by a flood sent by Gucumatz. Another of this civilization's myths sees Seven Macaw defeated by Hunahpu [hoo-NAH-poo] and Xbalanque [SH'buh-LAN-kay], the (*) Hero Twins, in a ball game. The Popol Vuh records the myths of, for 10 points, what Mesoamerican civilization whose cyclical Long Count calendar resets in December, 2012?
Answer: Mayan civilization
20. In 2012, this country's National Forces Alliance, led by Mahmud Jabril, won $48 \%$ of the vote. The Khamis Brigade was once based in, and Operation Mermaid Dawn was launched out of, this country's city of (*) Misrata. U.S. Ambassador Christopher Stevens was killed in Benghazi in, for 10 points, what North African country whose 2011 civil war led to the death of Mu'ammar alQaddaafi?
Answer: Libyan Republic

## Bonuses

1. These objects often consist of two metal plates separated by a short distance. For 10 points each, [10] Name these circuit elements that store energy in an electric field often found between those parallel plates.
Answer: capacitors (accept condensers)
[10] When two capacitors are connected in this way, the total capacitance is the sum of the individual capacitances. This circuit configuration is contrasted with series.

## Answer: parallel

[10] Capacitance can be increased by inserting one of these insulators between the two plates.
Their high polarizability allows the capacitor to store a greater charge.
Answer: dielectrics
2. Thomas Malory and T.H. White wrote about this legendary English king. For 10 points each, [10] Name this "Once and Future King," the husband of Guinevere and owner of the Round Table. Answer: King Arthur Pendragon
[10] Idylls of the King is a long poem about King Arthur by this English poet of "The Charge of the Light Brigade."
Answer: Alfred, Lord Tennyson
[10] The Green Knight is sent by Morgan le Faye to battle this knight of the Round Table, King Arthur's nephew, in a poem by the "Pearl Poet."
Answer: Sir Gawain [GAH-win, but be lenient with pronunciation]
3. He killed a pair of snakes while he was an infant. For 10 points each, [10] Name this half-mortal son of Zeus, who killed the hydra and the Nemean lion as part of his twelve labors.
Answer: Heracles (accept Hercules)
[10] Heracles killed an eagle that repeatedly ate the liver of this titan, who was punished for bringing fire to humankind.
Answer: Prometheus
[10] Prometheus predicted that this lover of Zeus would one day be happy; she had been turned into a white cow and was pursued by a gadfly that caused her to wander the earth.
Answer: Io ["eye"-oh]
4. Examples of this often-sacred choral genre include Haydn's The Creation and The Seasons. For 10 points each,
[10] Name this type of composition for orchestra, choir, and soloists, examples of which include Handel's Messiah.

## Answer: oratorio

[10] Immediately before the Hallejuah Chorus in Handel's Messiah is "Thou shalt break them," a solo for this vocal range, the higher male voice in four-voice choral music.
Answer: tenor (accept elaborations; do not accept countertenor)
[10] This other type of choral composition developed in the Renaissance era. These secular polyphonic songs are contrasted with sacred motets, and are commonly performed today in the context of holiday dinner theater.
Answer: madrigal
5. The Tugaloo and Chattooga Rivers feed into this larger river. For 10 points each, [10] Name this river that forms much of the southern border of South Carolina.
Answer: Savannah River
[10] The Savannah River is the eastern border of this southern U.S. state founded by James Oglethorpe in 1730.

## Answer: Georgia

[10] This second largest city in Georgia is found along the Savannah River. A country club in this city admitted its first female members, including Condoleezza Rice, in 2012.
Answer: Augusta
6. Wilfred Owen's "Anthem for Doomed Youth" is in this poetic form, and Shakespeare's poems in this form use three quatrains with alternating rhymes followed by a rhyming couplet. For 10 points each,
[10] Give this term for a 14 line poem with a strict rhyme scheme.
Answer: sonnet
[10] This Italian ex-priest detailed his passionate, yet unrequited, love for a married woman in II Canzoniere, usually translated as "The Song Book." Most of the collected poems are sonnets in a rhyme scheme now named for him.
Answer: Petrarch (accept Petrarchian sonnet)
[10] Petrarch addressed his love poetry to a woman of this first name, which is shared by the authors of Like Water for Chocolate and Little House on the Prairie.
Answer: Laura (accept Laura Esquivel or Laura Ingalls Wilder)
7. Prior to this battle, Joseph Warren alerted William Dawes and Paul Revere, who then rode through the night alerting the colonists of advancing troops. For 10 points each, [10] Name this April 19, 1775 engagement between militiamen and British regulars, after which colonial forces gathered at Concord.
Answer: Battle of Lexington
[10] On the night of Dawes' and Revere's rides, they and Joseph Warren were stationed in this Massachusetts city, which was later sieged by militiamen.
Answer: Boston, Massachusetts
[10] The British plan to end the siege of Boston suffered a setback; though they won the Battle of Bunker Hill, they took severe casualties in two failed assaults on this nearby hill north of Charlestown. After running out of ammunition, Joseph Warren was killed in a redoubt on this hill. Answer: Breed's Hill (do not accept Breed Hill)
8. Supermassive examples of these objects are thought to be at the center of elliptical and spiral galaxies. For 10 points each,
[10] Name these extremely dense objects with gravitational singularities at their centers, from which not even light can escape.

## Answer: black holes

[10] This region can be considered as the "boundary" of a black hole. Once light or matter passes through this region, it can never escape.

## Answer: event horizon

[10] Matter falling into a black hole often forms into one of these rapidly-spiraling circular regions orbiting around it. In September 2012, one of these regions allowed the radius of a black hole to be measured for the first time.
Answer: accretion disc
9. This leader won at Austerlitz and oversaw a disastrous retreat from Russia before losing his final battle at Waterloo. For 10 points each,
[10] Name this Emperor of France who fought multiple wars against a European coalition.
Answer: Napoleon Bonaparte (accept Napoleon I)
[10] A Congress in this Austrian city attempted to create a "balance of power" in Europe after Napoleon's defeat.
Answer: Vienna (accept Wien)
[10] This Austrian leader oversaw the Congress of Vienna and was removed from power during the Revolutions of 1848.
Answer: Klemens von Metternich
10. Binary operations on these mathematical objects include union and intersection, which are analogies of the Boolean operators OR and AND, respectively. For 10 points each, [10] Give this term for an unordered collection of elements.
Answer: set
[10] Given a set $A$, this other set is defined as all the elements in the universe that are not in $A$.
Answer: complement (of A ) or ( A -)complement (accept word forms)
[10] Given a set $A$, this other set is defined as all the subsets of $A$. If $A$ has 5 elements, then this set will have 2 to the fifth power, or 32, elements.
Answer: power set of $A$
11. This song begins "It's empty in the valley of your heart/The sun, it rises slowly as you walk," and its music video sees the band give its instruments to Indian men in marching band uniforms. For 10 points each,
[10] Name this Grammy-nominated song by a British folk rock band.
Answer: The Cave
[10] "The Cave," along with "Little Lion Man" and "Roll Away Your Stone," are singles from this band's debut album Sigh No More. This band's second album, Babel, featuring the single "I Will Wait," was released in September 2012.
Answer: Mumford and Sons
[10] Mumford and Sons' bluegrass-inspired instrumentation includes mandolins and this string instrument, played by comedian Steve Martin with the Steep Canyon Rangers.
Answer: banjo
12. In this work, Bharata reluctantly rules while this work's namesake prince is in exile. For 10 points each,
[10] Name this Indian epic about the title man's attempt to rescue his wife, Sita, from the Demon King, Ravana, with the help of an army of monkeys.

## Answer: Ramayana

[10] The army of monkeys that helps Rama is led by this Hindu monkey-god, who was blessed by Shiva with strength and immortality.

## Answer: Hanuman

[10] During Rama's journey, Bharata places these articles of clothing belonging to Rama on the throne to indicate that Bharata is only serving as a regent.
Answer: sandals (accept shoes)
13. This President suffered a catastrophic stroke in October 1919; his wife essentially ran the Oval Office during the last months of his term. For 10 points each, [10] Name this President. His health deteriorated during a campaign to convince the American people of the benefits of his League of Nations, one of his Fourteen Points to bring peace to postWorld War I Europe.
Answer: (Thomas) Woodrow Wilson
[10] This Constitutional Amendment provides a mechanism to allow the Vice President to adopt Presidential duties if the President is incapacitated.
Answer: 25th Amendment to the U.S. Constitution
[10] The 25th Amendment was first invoked during Richard Nixon's administration to appoint Gerald Ford as Vice President when this man resigned due to tax evasion charges.
Answer: Spiro (Theodore) Agnew
14. Organisms in this phylum possess post-anal tails and notochords at some point in their life cycle. For 10 points each,
[10] Name this phylum, distinguished for having a nerve cord, whose members include tunicates, lancelets, and all vertebrates.

## Answer: Chordata

[10] This order in phylum Chordata contains mammalian species such as monkeys, apes and humans.
Answer: Primates
[10] This hominid genus contains the earliest recognized human ancestors. Its species include africanus and afarensis, the latter of which includes the specimen Lucy.
Answer: Australopithecus
15. This novel's protagonist wonders where the Central Park ducks go in the winter and derides "phonies." For 10 points each, [10] Name this novel in which Holden Caulfield gets expelled from Pencey Prep. Answer: The Catcher in the Rye
[10] This American author wrote about Seymour Glass's suicide in "A Perfect Day for Bananafish" in addition to writing The Catcher in the Rye.
Answer: Jerome David Salinger
[10] Holden Caulfield wishes to be a "Catcher in the Rye," a figure who can protect children, particularly this ten-year-old sister, from the evils of the world.
Answer: Phoebe Caulfield
16. It was built by the Jamuna River by Shah Jahan for his third wife. For 10 points each, [10] Name this white marble mausoleum with a prominent dome in Agra, India. Answer: Taj Mahal
[10] Shah Jahan was a ruler of this Muslim empire in India. It won the Second Battle of Panipat under the leadership of Akbar the Great.
Answer: Mughal Empire (accept Mogul empire; accept Shahan-e-Gurkhani)
[10] This founder of the Mughal Empire defeated Ibrahim Lodi at the First Battle of Panipat. He was descended from both Tamerlane and Genghis Khan.
Answer: Zahir-ud-den Muhammad Babur (accept Baber; accept Babar)
17. It has the lowest boiling point of any element and was discovered in the spectrum of the sun. For 10 points each,
[10] Name this second most abundant element in the universe, which has atomic number 2.
Answer: helium (accept He )
[10] Helium is the lightest of this group of elements, the rightmost column of the periodic table. They have full valence shells, making them highly inert.
Answer: noble gases
[10] Several compounds of this noble gas have been formed, including a tetrafluoride and hexafluoride. The heaviest noble gas with stable isotopes, it has atomic number 54.
Answer: Xenon (accept Xe)
18. Replacing social welfare programs with a negative variety of this concept was one argument of the 1962 work Capitalism and Freedom. For 10 points each,
[10] Name this economic concept, first applied in peacetime in the United States by the WilsonGorman Tariff Act.
Answer: income tax (prompt on tax)
[10] The negative income tax was supported by this man, a University of Chicago professor and the author of Capitalism and Freedom, as a means to curtail bureaucratic waste generated by most social welfare programs.
Answer: Milton Friedman
[10] Friedman was especially concerned with this welfare program, which primarily gives support to retirees and is funded--along with Medicare--by FICA payroll taxes.
Answer: Social Security
19. In this work, Christian journeys from the "city of Destruction" through the "Wicket Gate" along the "straight and narrow path" to the "Celestial City." For 10 points each, [10] Name this 1678 work of Christian literature written by John Bunyan.
Answer: The Pilgrim's Progress from This World to That Which is to Come
[10] This term refers to literary works like The Pilgrim's Progress that use extended metaphor to give characters, places, and events important symbolic meanings.
Answer: allegory (accept word forms)
[10] L. Frank Baum's most famous novel can be read as an allegory for the American populist movement, in which a tin man represents the workers, a scarecrow represents the farmers, the Yellow Brick Road represents the gold standard, and this title character represents the President. Answer: The Wonderful Wizard of Oz
20. A man stands outside a door in the background of this painting, and the king and queen of Spain are reflected in a mirror. For 10 points each,
[10] Name this painting in which the Infanta Margarita is flanked by two dwarves and her title Maids of Honor.
Answer: Las Meninas
[10] Name this Spanish artist, who depicted himself peering out from behind his canvas in Las Meninas.
Answer: Diego (Rodriguez de Silva y) Velázquez
[10] In Las Meninas, one of these creatures lies at the Infanta's feet. A small one of these animals appears in the Arnolfini Portrait, and C.M. Coolidge painted these animals playing poker.
Answer: dogs (accept Canis lupus familiaris; prompt on canines)

