



PACE NSC 2017 - Round 02 - Tossups

1. Legendarily, stones rose up to fight alongside a holder of this title against an invasion by the Chanka; that holder incorporated the Chimú people into his realm. A holder of this title provoked an attack by throwing a holy book offered by the friar Vicente de Valverde to the ground. After the conquest of their previous capital, the final holders of this title ruled from (*) Vilcabamba. A holder of this title ended a civil war by executing his brother Huáscar but was himself executed despite offering a massive gold-filled "ransom room" to his captors. The last autonomous holder of this title, Atahualpa, was killed by the forces of Francisco Pizarro. For 10 points, identify this title whose holders ruled from Cuzco over a vast Peruvian empire.

ANSWER: emperor of the Inca [or Sapa Inca; or obvious equivalents for "emperor"] <Shimizu>

2. In a dialogue by Lucian, this character tells Menippus that "the life of the ordinary man is the best and most prudent choice." The ghost of Laius assumes the form of this person to convince his grandson to go to war in a poem by Statius. This character died while pausing to drink at the spring of Tilphussa.

During the *nekylia* (neh-KOO-yah) in the *Odyssey*, this son of Everes and (*) Chariclo (EV-uh-reez and CHAR-ik-lo) is the only person to recognize Odysseus before drinking the sacrificial blood. Menoeceus (men-oh-EE-see-us) commits suicide on the advice of this character, whose daughter Manto was born during a period he spent serving in a temple of Hera. After striking a pair of mating snakes with his staff, this figure spent the next seven years transformed into a woman. For 10 points, name this blind Theban soothsayer.

ANSWER: Tiresias [or Teiresias] <Carson>

3. In one story, eight masqueraders dressed as these animals in costumes made of flax and tar are hoisted thirty feet upward by a chain affixed to a pulley and are burnt alive by a torch taken from a caryatid (CARE-yah-tid). The title vengeful dwarf murders a king and seven ministers costumed as these animals in the short story "Hop Frog." In another story, a "shrill voice," heard speaking a language like Spanish to a gruff Frenchman, is (*) revealed to be one of these animals shrieking at the sailor whose ribbon it left on a lightning rod; in that story, the killer of Madame L'Espanaye and her daughter is proven to be one of these creatures by C. Auguste Dupin (see oh-GOOST doo-PAN). For 10 points, name this species of great ape that commits the title crime in Edgar Allan Poe's "Murders in the Rue Morgue."

ANSWER: orangutan [or Pongo borneo; or Pongo pygmaeus; prompt on ape until it is read; prompt on monkey] <Bollinger>

4. P. B. Molesworth found that this structure regularly interacts with the South Tropical Disturbance, increasing its speed whenever they come in contact. This structure is thought to be at least 300 years old since it appears in a painting by Donato Creti. Voyager's observation of this structure showed that UV light breaks down the phosphine within it, which may explain why this feature's temperature of approximately 115 kelvins is 10 kelvins cooler than the (*) region surrounding it. The Oval BA is smaller, but similar to, this structure, which can be found alongside brown ovals and white ovals within "bands" and "zones" of differing colors. For 10 points, what anticyclonic system larger than the size of Earth is a storm in Jupiter's atmosphere?

ANSWER: Great Red Spot [prompt on partial answer] <Jose>

5. According to the Ahmadiyya, this man is buried at Roza Bal, a shrine in Kashmir. In the Surat Al-Ma'ida, this man asked God to send down food from heaven. This man made a clay figure of a bird and breathed into it, causing it to come to life. After he was born, this man's mother was told to shake a palm tree for dates. The Surat An-Nisa describes the apparent (*) death of this man, who revealed that Injil was actually an illusion. This man will appear alongside the Mahdi and kill the Dajjal before the Day of Resurrection. In Islam, this man is considered to be the *second-to-last* prophet, preceding Muhammad. For 10 points, the Surat Maryam describes the virgin birth of which prophet, who in another tradition could walk on water?

ANSWER: Jesus Christ [accept either underlined portion; accept Isa ibn Maryam] <Cheng>

6. In this novel, the protagonist's love interest and his boyhood crush Pribislav are linked by their "Kirghiz eyes" and by scenes in which they lend him pencils. The protagonist plays the aria "Valentine's Prayer" to summon the ghost of his cousin during a séance in this novel. Its main character falls asleep in a shed while out skiing and dreams of a human sacrifice in a Greek temple. In this novel, a Jewish convert to Catholicism shoots himself during a duel with his frequent intellectual sparring partner, an (*) Italian humanist. This novel's protagonist falls in love with Clavdia (KLAHV-dee-ah) Chauchat and listens to the debates of Settembrini and Naphta while spending seven years at a Swiss sanatorium. For 10 points, name this novel about Hans Castorp, written by Thomas Mann.

ANSWER: *The Magic Mountain* [or *Der Zauberberg*] <Brownstein>

7. A 1959 Royal Opera House performance of one of this composer's operas was Joan Sutherland's coloratura breakthrough. One of his arias originally called for a glass harmonica and was written in F major, though it's often performed in E-flat major. One of this composer's arias ends with the singer repeatedly crying "Si può morir!", or "One could die!", and is inspired by the sight of the singer's love interest weeping. This composer wrote the aria "Una (*) furtiva lagrima" for an opera in which the title substance, used by Nemorino to woo Adina, is revealed to be cheap red wine. The aria "Il dolce suono" (eel DOHL-chay SWOH-no) features in the "mad scene" of an opera by this man that is based on a Walter Scott novel. For 10 points, name this Italian composer of *The Elixir of Love* and *Lucia di Lammermoor*.

ANSWER: Gaetano Donizetti [or Domenico Gaetano Maria Donizetti] <Carson>

8. A member of this family used his skills of sneaking into women's bedrooms to scale the "impregnable" walls of Fort Saint-Phillip on Minorca and seize it from the British during the Seven Years' War. An earlier member of this family reduced religious freedom in the Edict of Grace and built a palace that was renamed the Palais Royal after his death. A man with this surname succeeded Concino Concini (con-CHEE-noh con-CHEE-nee). One member of this non-royal family survived the (*) Day of the Dupes and ordered a large sea wall to keep out English relief during a year-long siege of the Protestant stronghold of La Rochelle; that same man with this surname was a rival of Marie de Medici and earned the nickname the Red Eminence. For 10 points, identify this surname of a cardinal who served Louis XIII.

ANSWER: Richelieu [or Vignerot du Plessis] <Bentley>

9. Christopher Fairburn advocates the use of 16 to 20 sessions of cognitive behavior therapy to treat these types of conditions. Like alcoholics, people who suffer from one of these conditions develop Mallory–Weiss syndrome. Christopher Dare developed a treatment for them at Maudsley Hospital. Gerald Russell identified characteristic incisor marks on the knuckles of patients suffering from these disorders. The DSM-5 removed the requirement of (*) amenorrhea to diagnose one of these since that condition also affects women too old to have their menstrual cycle suppressed. An extreme type of this condition affects people with a BMI below 15; another is divided into purging and non-purging types. For 10 points, bulimia and anorexia are what type of disorders?

ANSWER: eating disorders [anti-prompt on anorexia nervosa; anti-prompt on bulimia nervosa] <Bentley>

10. The rate of this process is regulated by a 52-residue membrane protein called phospholamban. An irregularity in this process called *torsades de pointes* (tor-SAHD de PWANNT) is treated by digoxin (dye-GOX-in). Two steps of this process are oddly described as "isovolumic" rather than "isovolumetric." The phases of this process are divided into points labelled P, Q, R, S, and T on a diagram where each square represents 40 milliseconds by (*) 0.1 millivolts. Signals during this process are transmitted through the bundle branches to the Purkinje (pur-KIN-jee) fibers. This process is regulated by the sinoatrial node and is normally divided into systolic and diastolic phases. It occurs too quickly in tachycardia. For 10 points, name this internal process that is regulated by a pacemaker and is measured by taking one's pulse.

ANSWER: heartbeat [or heart contraction; or heart expansion; or electrical heart conduction; or muscle contraction; or obvious equivalents; accept systole or word forms until "systolic" is read; accept diastole or word forms until "diastolic" is read; prompt on pulse until it is read] <Silverman>

11. The only man wearing armor in this painting stands below a niche with a statue holding a lyre. The allegorical subject of this painting appears with the words "Causarum Cognitio" in a tondo above it. A white-clad figure in this painting may be either a self-portrait or a depiction of the artist's mistress La Fornarina. A youth in this painting holds a black tablet displaying the formula "one plus two plus three plus four equals ten", while one of its central figures holds a (*) book and points his finger to the sky. Other men in this painting include Averroes (av-er-ROH-eez) and, possibly, Zoroaster. Pope Julius II commissioned this painting, which is opposite its artist's *La Disputa* in the Stanza della Segnatura (sen-yah-TOO-rah). For 10 points, name this Raphael painting of Plato, Aristotle, and other philosophers.

ANSWER: *The School of Athens* [or Scuola di Atene] <Bentley>

12. A form of spectroscopy named for this phenomenon is used for elemental analysis on thin films and also labels peaks by atomic subshells, like "carbon 1s (one-S)." Introductory labs about this phenomenon often use it to measure the ratio h -over- e . This effect caused the spark length to decrease when a glass panel was added between two ends of a coil. This effect occurs in a sample hooked up to a variable power supply up to a threshold voltage symbolized (*) ϕ . Work functions are determined by subtracting out the kinetic energy of particles produced by this effect. One of Einstein's *annus mirabilis* papers explained it to be a result of the quantization of light. For 10 points, name this effect in which irradiated metals eject electrons.

ANSWER: photoelectric effect [or photoemission] <Silverman>

13. Glucose sensors work by colorimetrically monitoring the formation of this compound when glucose is oxidized. Piranha solution contains it and sulfuric acid. This compound catalyzes the second step of hydroboration–oxidation. A mixture of iron and this compound is used to decontaminate halogenated organic waste in water. This compound forms when long-chain fatty acids are dehydrogenated, but it is immediately (*) disproportionated in cells from a negative-one oxidation state to compounds with zero and negative-two oxidation states by the enzyme catalase. Shining UV light on this compound gives two hydroxyl radicals, so it must be stored in opaque brown bottles, often in a 3-percent aqueous solution, at which point it is used as an antiseptic. For 10 points, name this compound which has formula H₂O₂.

ANSWER: hydrogen peroxide [or H₂O₂ until it is read; prompt on peroxide] <Silverman>

14. The pianist slowly alternates high and low chords in a piece by this composer inspired by the sight of peasants struggling through snowdrifts. This composer of *Intermezzo in modo classico* wrote a work in which several nearly-repeated sections begin with monophonic statements of a theme, followed by harmonized statements of the same theme, in pairs of measures in alternating time signatures. Leopold Stokowski's (stoh-KOV-ski's) version of one of this man's works removes the brass fanfare that (*) Rimsky-Korsakov's version used to indicate the arrival of Chernobog. Ravel eliminated the last of the "promenades" in his orchestration of a work by this man that features movements titled "The Old Castle" and "The Great Gate of Kiev." For 10 points, name this Russian composer of *Night on Bald Mountain* and *Pictures at an Exhibition*.

ANSWER: Modest Petrovich Mussorgsky <Carson>

15. In a polemic against these people, Isocrates (eye-SOCK-rah-teez) criticized them for claiming art could be created through simple rules. In a work titled for this kind of person, the Stranger compares these people to fishermen and defines them through a series of divisions. One of these people named Callicles argued that the "law of nature" is superior to conventional morality, which allows the weak to enslave the strong. Against a group of these people, Socrates argued that (*) rhetoric without philosophy is devoid of morality in Plato's *Gorgias*. Plato called Protagoras the first of these people, who claimed to teach virtue and came under criticism for charging money and teaching deceptive reasoning. For 10 points, name these ancient thinkers whose name comes from the Greek for wisdom.

ANSWER: sophists <Kothari>

16. In 2014, this leader's wife appeared dressed in white next to a drag queen while at an LGBTQ parade to support the rights of sexual minorities in their country. This politician quoted an Ambrose Bierce poem stating "the brave respect the brave" in a speech that asserted "we must never repeat the horrors of war again." He proposed a monetary policy that seeks to reduce the inflation rate to two percent as part of the "three arrows" of an economic policy (*) named for him. This leader, who once led his country's society for textbook reform, was the first sitting leader to visit Donald Trump after Trump was elected. In December 2016, Barack Obama and this member of the Liberal Democratic Party visited Pearl Harbor. For 10 points, name this current prime minister of Japan.

ANSWER: Shinzo Abe (AH-bay) [accept names in either order; prompt on Abenomics] <Jose>

17. After bungling a blockade run out of New London, this man alleged that Connecticut Federalists had lit "blue lights" to alert the British navy. In a duel, this man stupidly chose William Bainbridge, who despised him, as his second; Bainbridge made sure this man died in that duel against the disgraced captain of the *Chesapeake*. Benjamin (*) Latrobe built this man a house in Lafayette Square, where this victor over the *Macedonian* became a Washington celebrity. In 1804, this man disguised his crew as Maltese sailors on a mission that blew up the USS *Philadelphia* in Tripoli harbor. For 10 points, name this hero of the Barbary Wars famous for dedicating a toast to "our country, right or wrong."

ANSWER: Stephen Decatur <Bollinger>

18. A poem by this author instructs "Give wine. Give bread. Give back your heart / to itself, to the stranger who has loved you." In a poem by this author, "the worm, colonel of carrion, cries: / 'Waste no compassion on these separate dead!'" This poet of "Love after Love" described being poisoned by the blood of both the gorilla and the superman and mentioned "the English tongue I love" in a poem that ends by asking, (*) "How can I face such slaughter and be cool? / How can I turn from Africa and live?" In a poem by this author, Philoctete (fee-lock-TET) hangs out at Ma Kilman's No Pain Café, and the fishermen Achille (ah-SHEEL) and Hector compete for Helen. For 10 points, name this poet of "A Far Cry from Africa" and *Omeros*, a Saint Lucian Nobel laureate who died in 2017.

ANSWER: Derek (Alton) Walcott <Brownstein>

19. A king from this region frequently switched his allegiance to the Valois king Charles V and supported the Jacquerie revolt against John II; that king is Charles the Bad. A noblewoman who married a king of this region negotiated for the release of her brother Francis I after his capture at the Battle of Pavia; that woman from this region, who parodied the *Decameron* in her *Heptameron*, is Marguerite. A man from this region allied against the (*) Catholic League with a king who had the Duke of Guise (GHEEZ) executed to survive the War of the Three Henrys; that king from this region declared that "Paris is well worth a mass" and established the Bourbon dynasty. For 10 points, name this home of Henry IV of France, a Basque-speaking region on the Spain–France border.

ANSWER: Navarre <Shimizu>

20. This man wrote a poem whose 304 stanzas, inspired by William Davenant's *Gondibert*, are all decasyllabic quatrains ending in periods. His longest poem contains the first appearance of the phrase "blaze of glory." This author asserted "all human things are subject to decay, and, when Fate summons, monarchs must obey" at the beginning of a poetic attack on a man who "never deviates into sense," the "true-blue Protestant poet" (*) Thomas Shadwell. His allegories include a poem in which the Catholic and Anglican churches are represented by the title animals and a poem in which the Duke of Monmouth and the Earl of Shaftesbury become a rebellious Biblical duo. For 10 points, name this Restoration poet of "Annus Mirabilis," "The Hind and the Panther," "Mac Flecknoe," and "Absalom and Achitophel."

ANSWER: John Dryden <Carson>

21. A character in a story by this author falls in love "like a pistol shot" with a girl standing beneath the same pillar where she was found sleeping as a baby. The protagonist of a story by this author drinks the "very elixir of life" while locked in her room before experiencing what doctors diagnose as "the joy that kills." A man burns a willow cradle because he believes his wife to be part (*) black in a story by this author, who wrote a story in which Louise believes she's been freed by the death of her husband. This author of "Desiree's Baby" and "Story of an Hour" wrote a novel in which a friend of Mademoiselle Reisz ("rise") receives a note from her lover Robert Lebrun, prompting her to walk into the Gulf of Mexico. For 10 points, name this author of *The Awakening*.

ANSWER: Kate **Chopin** [or Katherine **O'Flaherty**] <Brownstein>



PACE NSC 2017 - Round 02 - Bonuses

1. The architect of this event, John Law, fled to London when it became apparent that the stocks in the namesake company were trading much higher than their actual value. For 10 points each:

[10] Name this event that devastated France's finances in the early 1720s.

ANSWER: **Mississippi Bubble**

[10] The Mississippi Bubble damaged the credibility of Philippe d'Orléans, who was serving as regent to this French king. He took the throne at age five following the death of his great-grandfather, the Sun King.

ANSWER: **Louis XV** [or **Louis the Well-Beloved**; or **Louis le Bien-Aimé**; prompt on **Louis**]

[10] This man visited the court of Philippe d'Orleans in 1717. On an earlier tour, this monarch worked under an assumed name at a Dutch shipyard.

ANSWER: **Peter the Great** [or **Peter I**; accept **Pyotr** in place of "Peter"; prompt on **Peter** or **Pyotr**] <Bentley>

2. This character receives the Armor of God after stopping at House Beautiful, which aids him in his battle with the dragon-winged demon Apollyon. For 10 points each:

[10] Name this character who is briefly tricked by Mr. Worldly Wiseman while traveling to the Wicket Gate of the Celestial City.

ANSWER: **Christian**

[10] While imprisoned as a nonconformist, this Puritan preacher wrote about Christian's journey in his allegory *Pilgrim's Progress*.

ANSWER: John **Bunyan**

[10] The weight of Christian's sins cause him to sink into this bog, where he is abandoned by Pliable and pulled out by Help.

ANSWER: **Slough of Despond** <Brownstein>

3. This man holds a goblet on the left-hand side of a group portrait by Bartholomeus van der Helst. For 10 points each:

[10] Name this man who wears a red sash in a different group portrait of his militia company, which that depicts him conversing with his yellow-suited lieutenant, Willem van Ruytenburch (**ROUT-in-burkh**).

ANSWER: Frans Banning **Cocq** (**coke**) [or Frans Banninck **Cocq**]

[10] Frans Banning Cocq is the central figure in this Dutch Golden Age artist's *Night Watch*. He also painted *The Anatomy Lesson of Dr. Tulp*.

ANSWER: **Rembrandt** [or Rembrandt Harmenszoon **van Rijn**]

[10] A woman described by this adjective appears in the title of a Rembrandt painting once thought to depict a father placing a necklace on his daughter. Fellow Dutch artist Jacob van Ruisdael (**YAH-kop fon ROUSE-dahl**) included a rainbow in his landscape of this type of cemetery.

ANSWER: **Jewish** [or **Joodse**; accept *The **Jewish Bride*** or *The **Jewish Cemetery***] <Bentley>

4. Answer the following about an incident of anti-Semitism within the Soviet Union, for 10 points each.
[10] After V. N. Vinogradov, a member of this profession, suggested that Stalin take a break from politics, Stalin accused Jewish members of this profession of conspiring to kill Soviet leaders; that so-called "plot" is named for its members.

ANSWER: **doctors** [accept **physicians** and equivalents to "doctors"; prompt on **scientists**]

[10] This official newspaper of the Communist Party ran articles claiming that Jewish doctors were indeed "abusing the trust of their patients" to give credence to the Doctors' Plot.

ANSWER: **Pravda**

[10] This successor to Josef Stalin denounced the Doctors' Plot as purely invented in his "secret speech."

ANSWER: Nikita Sergeevich **Khrushchev** <Jose>

5. Daniel Dennett wrote that this man's "dangerous idea" is a "universal acid" toward reductionism. For 10 points each:

[10] Name this biologist. In one book, Elliott Sober considered why this scientist didn't give evidential priority to common ancestry of species in his *On the Origin of Species*.

ANSWER: Charles Robert **Darwin**

[10] Philosophers of biology disagree about whether Darwin's theory of evolution supports or undermines this kind of causation, which is among the four posited by Aristotle. This concept refers to the purpose or end of a thing.

ANSWER: **final** causation [or **telos**; or **teleology**; accept word forms]

[10] This man, who coined the term "agnosticism," argued from Darwinism that the mind is an epiphenomenon. He popularized evolution through his book *Man's Place in Nature* and debates with people like Samuel Wilberforce.

ANSWER: Thomas Henry **Huxley** <Kothari>

6. I scream, you scream, we all scream for ice cream! For 10 points each:

[10] Agnes Marshall's book *Fancy Ices* introduced the use of the liquid form of this element in ice cream production. Its gaseous form makes up about 78 percent of Earth's atmosphere.

ANSWER: **nitrogen** [or **N**]

[10] Many newspaper articles credited this politician, who had an Oxford chemistry degree, with inventing soft-serve ice cream by devising a method to inject air into the cream. This politician's other dairy-related exploits include slashing public spending such that some schoolchildren no longer received free milk.

ANSWER: Margaret Hilda **Thatcher**

[10] Ice cream often contains this family of polysaccharide compounds as a stabilizing agent. This class of compounds is extracted from red algae, like Irish moss, and is frequently used in toothpaste.

ANSWER: **carrageenans** (CARE-uh-JEE-nins) <Jose>

7. Conrad Waddington coined the name of this field and described its landscape as analogous to a marble rolling down a hill. For 10 points each:

[10] Name this field of genetics that considers all heritable traits that cannot be explained simply by changes to DNA sequence.

ANSWER: **epigenetics** [or **epigenetic** landscape]

[10] At the top of Waddington's epigenetic landscape would be a totipotent one of these cells, which is capable of differentiating into all other cell types. By contrast, embryonic ones are only pluripotent.

ANSWER: totipotent **stem** cells

[10] Reprogramming a differentiated adult cell into a stem cell, which is analogous to rolling the marble back up the hill, can be accomplished by transfecting cells with Oct4, Sox2, c-Myc (**c-mick**), and Klf4. Those proteins are collectively named for this Japanese biologist, who won a Nobel Prize in 2012 for discovering induced pluripotency.

ANSWER: Shinya **Yamanaka** [or **Yamanaka** factors] <Grames>

8. Answer the following about *Robinson Crusoe* in French literature, for 10 points each.

[10] Until the age of 12, the title character of this book is only allowed to read *Robinson Crusoe*. This treatise on education was written by Jean-Jacques Rousseau.

ANSWER: **Émile**, or *On Education*

[10] In Michel Tournier's retelling, this character leaves the island on an English schooner while Crusoe stays behind. In the original novel, this man becomes the servant of Crusoe, who names him after a day of the week.

ANSWER: **Friday**

[10] The name of the protagonist of J. M. G. Le Clézio's *The Interrogation*, Adam Pollo, may be a reference to this character from the novel, who exclaims things like "Poor Robin Crusoe! Where are you? Where have you been?"

ANSWER: Crusoe's **parrot** [or **Poll**; prompt on **bird**] <Brownstein>

9. With the exception of some cats, all female animals are banned from this region, and women who trespass in it are imprisoned for a minimum of two months if they are caught. For 10 points each:

[10] Name this peninsula in the Mediterranean Sea that is home to many monasteries. It takes its name from the mountain of the same name located on it.

ANSWER: Mount **Athos** [accept the **Autonomous Monastic State of the Holy Mountain**]

[10] Mount Athos is a World Heritage site in this country, whose other religious World Heritage sites include the archaeological site of Delphi and the Acropolis.

ANSWER: **Greece** [or **Hellas**; or **Elláda**; or the **Hellenic** Republic; or **Ellinikí** Dimokratía]

[10] Mount Athos is part of the larger peninsula of Chalkidiki, which is in a region of Greece with this name. A country of this name that contains the Lake Ohrid World Heritage site clashed with Greece over, among other things, the use of the Vergina Sun on its second flag.

ANSWER: **Macedonia** [or **Makedonia**; or **Makedonija**] <Jose>

10. A decrease in the rate of these events actually diminishes the population of black-backed woodpeckers. For 10 points each:

[10] Name these events that stimulate the release of seeds from lodgepole pine trees. These ecosystem-destroying events are especially common in dry chaparral areas like the Sierra Nevadas in California.

ANSWER: **wildfires**

[10] After a fire, this specific recovery process takes place, as pioneer species move in and vegetation begins to grow back. In this specific process, however, soil does *not* need to be regenerated.

ANSWER: **secondary succession** [prompt on succession]

[10] Joseph Connell hypothesized that this quantity is maximized for medium frequencies of disturbances in an ecosystem. Mosaic patch burning is used to deliberately increase this quantity, which can be measured by the Simpson index or by a version of the Shannon entropy.

ANSWER: **biodiversity** [or species **diversity**; or the **number of different species**; or obvious equivalents] <Grames>

11. The so-called "Two Ladies" consisted of this goddess and her Upper Egyptian counterpart Nekhbet, who joined her as part of the *uraeus* (*yurr-EE-us*) symbol after the unification of Egypt. For 10 points each:

[10] Name this cobra-headed Egyptian goddess who became closely associated with the Eye of Ra. She also gave her name to an eye-shaped hieroglyphic symbol of protection more closely associated with a different god.

ANSWER: **Wadjet** [or **Wedjat**]

[10] The *wadjet* symbol was considered to be the eye of this god, who fought for control of Egypt against his uncle Set after the death of his father, Osiris.

ANSWER: **Horus**

[10] In some stories, Set gouges out Horus's left eye, after which it is replaced by either Hathor or this god of law, wisdom, and magic. He often appeared as either an ibis or a baboon.

ANSWER: **Thoth** [or **Djehuti**] <Carson>

12. After seeing a mangled French translation of this story, the original author retranslated it into English and published it with the subtitle "In English, Then in French, and Then Clawed Back into a Civilized Language Once More by Patient, Unremunerated Toil". For 10 points each:

[10] Identify this short story about "a feller here by the name of Jim Smiley" who was "always betting on any thing that turned up." The title creature in this story is filled with quail shot to win a bet.

ANSWER: "The **Celebrated Jumping Frog of Calaveras County**"

[10] "The Celebrated Jumping Frog of Calaveras County" was written by this American humorist, who also wrote *The Prince and the Pauper*.

ANSWER: Mark **Twain** [or Samuel Langhorne **Clemens**]

[10] Jim Smiley had great success with a fighting dog he named for this U.S. president. Smiley's dog of this name was defeated by a dog whose owner had sawed its hind legs off.

ANSWER: **Andrew Jackson** [accept either underlined portion] <Bentley>

13. The title figure has discarded his coat and plow in order to take up arms in a sculpture by this artist that today can be found at Old North Bridge in Concord. For 10 points each:

[10] Identify this sculptor of *The Minute Man*. He also erected a 65-foot-tall *Statue of the Republic* for the World's Columbian Exposition in Chicago.

ANSWER: Daniel Chester **French**

[10] Daniel Chester French is probably most famous for his seated sculpture of this president at a Washington, D.C., memorial. The memorial to this president was designed by Henry Bacon and includes text from his second inaugural address on the walls.

ANSWER: Abraham **Lincoln** [or Abe **Lincoln**]

[10] Another French-Bacon collaboration was a work of this type honoring Samuel Francis Dupont that contains allegorical representations of the sea and the stars. Nicola Salvi and Pietro Bracci created a celebrated work of this type in Rome that features Oceanus.

ANSWER: a **fountain** [accept the Dupont Circle **Fountain** or the Trevi **Fountain**] <Bentley>

14. This monarch ordered the construction of many new roofless temples, which made it possible for worshippers to engage in excruciatingly long periods of sunbathing. For 10 points each:

[10] Name this monarch whose reign gave rise to the Amarna style, which did away with the symmetrical ideal.

ANSWER: **Akhenaten** [or **Akhnaton** or **Ikhnaton**; or **Amenhotep IV**; or **Amenophis**; prompt on **Amenhotep**]

[10] The intact tomb of this son of Akhenaten was discovered by Howard Carter in the Valley of the Kings in 1922.

ANSWER: King **Tut** [or **Tutankhamun**; or **Tutankhaten**]

[10] Historians have a window into Akhenaten's diplomatic relationships with other countries thanks to the Amarna Letters, some of which concern Alashiya. Alashiya is an ancient name for this country, which was where the city of Salamis was located.

ANSWER: **Cyprus** <Bentley>

15. Caterina Galli played the "Israelite man" in the premiere of this piece, the most famous section of which was actually written for its composer's *Joshua*, another work in the same genre. For 10 points each:

[10] Name this 1746 composition based on a deuterocanonical book of the Bible. It was its composer's second oratorio to feature the chorus "See, the Conqu'ring Hero Comes."

ANSWER: **Judas Maccabeus** [or **HWV 63**]

[10] *Judas Maccabeus* is a work by this German-born British composer, whose other oratorios include *The Triumph of Time and Truth* and *Messiah*.

ANSWER: George Frideric **Handel** [or George Frederick **Handel**; or Georg Friedrich **Händel**]

[10] Handel's other vocal works include "Utrecht" and "Dettingen" settings of this Latin canticle. This hymn's two-word name is followed by "laudamus" in its opening line, which in full translates as "thee, O God, we praise."

ANSWER: **Te Deum** (tay DAY-um) <Carson>

16. Answer the following about positions within the Holy See of the Vatican, for 10 points each.

[10] The job of these people was to argue against a figure's canonization. Their office was abolished by Pope John Paul II. They give their name to people who make deliberately controversial statements in an argument to test the opposing view.

ANSWER: **devil's advocates** [or **advocatus diaboli**]

[10] This is the general name for ambassadors and diplomats of the Holy See to other countries. Pio Laghi held this role to the United States during the Carter and Reagan administrations.

ANSWER: papal **nuncio** [or Apostolic **nuncio**]

[10] The college of cardinals meets to determine who the next pope is during this period of time, whose name is Latin for "empty seat."

ANSWER: **sede vacante** (SAY-day vuh-CON-tay) <Jose>

17. Answer some questions about methods for solving differential equations, for 10 points each.

[10] In an ordinary differential equation with two variables, this method ensures that those variables are both integrable by being moved to different sides of the equals sign and then being integrated over.

ANSWER: **separation of variables** [prompt on separation or word forms like separable]

[10] The ability to integrate both sides in a "separation of variables" problem relies on this theorem relating the infinitely many antiderivatives of a function on a closed interval to the definite integral over the bounds of that interval. Another part of this theorem establishes differentiation as the inverse process of integration.

ANSWER: **fundamental theorem of calculus** [or **FTC**; accept first **fundamental theorem of calculus**; accept second **fundamental theorem of calculus**]

[10] An ordinary differential equation that needs to be made integrable can be multiplied through by one of these functions. These functions are especially useful for rendering first-order ODEs tractable.

ANSWER: **integrating factors** <Aggarwal>

18. In this book's section "The Key," the protagonist's family learns that poor children are being sent to fight Iraq. For 10 points each:

[10] Name this graphic novel memoir in which Marjane Satrapi describes growing up after the Islamic Revolution.

ANSWER: **Persepolis**

[10] *Persepolis* depicts the overthrow of this country's shah by a revolution. This country is the setting of Azar Nafisi's *Reading Lolita in Tehran*.

ANSWER: **Iran** [or **Persia**; accept Islamic Republic of **Iran** or Jomhuri-ye Eslāmi-ye **Irān**]

[10] A much earlier work featuring Iranian shahs is this poet's *Shahnameh*, an epic that includes the story of Sohrab and Rostam.

ANSWER: **Ferdowsi** [or Abu 'l-Qasim **Ferdowsi** Tusi] <Brownstein>

19. Description acceptable. Daniel Webster quipped that he had "killed seventeen Roman proconsuls" while editing this text, although it still ran to over eight thousand words. For 10 points each:

[10] Identify this extremely long text read by a man on a chilly day without wearing an overcoat. The man who gave this speech died 31 days later.

ANSWER: **William Henry Harrison's inaugural** address [prompt on answers that do not specify a Harrison]

[10] William Henry Harrison was succeeded by this man, known as "His Accidency." He was onboard the USS *Princeton* when one of its guns exploded in 1844.

ANSWER: John **Tyler**

[10] Harrison, despite being from a privileged background, was championed as a man of the people in contrast to Martin Van Buren. Charles Ogle singled out Van Buren's "regal splendor" in a speech commonly titled for this type of utensil.

ANSWER: **golden spoon** [prompt on spoon; do not accept "silver spoon"] <Bentley>

20. One common application of these devices is to determine the molecular weight of proteins by observing how fast the boundary between the solvent and the sedimenting molecules reach the periphery. For 10 points each:

[10] Identify these types of devices whose drum may be powered by an air turbine.

ANSWER: **centrifuges** [or **ultracentrifuges**]

[10] Most ultracentrifuges, which rotate at over 20,000 rpm, place the drum in one of these environments to avoid the heat caused by air resistance. These environments can be created by namesake pumps that remove gas molecules.

ANSWER: **vacuum** [or partial **vacuum**]

[10] One hypothetical use of a centrifuge is to simulate this thing in order to prevent problems such as bone decalcification. Centrifuges are also used to simulate the effects of environments with a high degree of this force.

ANSWER: **gravity** [or artificial **gravity**; or **g-force**; or **gravitational** force] <Bentley>

21. The third movement of Havergal Brian's *Gothic Symphony* features an extremely challenging cadenza for this instrument, which also appears in many of Shostakovich's symphonies. For 10 points each:

[10] Name this instrument used to depict rattling bones in both *Danse Macabre* (**DONCE mah-COB**) and the "Fossils" section of *Carnival of the Animals*. It is generally pitched higher than the similar marimba.

ANSWER: **xylophones**

[10] *Danse Macabre* and *Carnival of the Animals* were both composed by this French organist.

ANSWER: Camille **Saint-Saëns** (**san-SAWNS**) [or Charles-Camille **Saint-Saëns**]

[10] *Danse Macabre* opens with a harp imitating a clock striking midnight, after which the solo violin enters playing a tritone produced by tuning one of the strings down a half-step to this specific note. Mozart's *Jeunehomme* (**zhun-UMM**) Concerto is in this note's major key.

ANSWER: **E-flat** [accept **E-flat** major] <Carson>