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Toss Ups:

1. **This artist depicted a young poet sitting at his desk while smoking a pipe in his *Portrait of Baudelaire*. A kneeling man in a yellow cap wielding a hammer is on the right side of a painting by this man which was destroyed during the Allied bombing of Dresden in World War II. Recently, scholars have debated whether a portrait of a young woman's head and shoulders by this artist was originally part of a painting of a nude woman's torso and (\*) genitals. Another painting by this artist of *The Origin of the World* depicts a white dog in its foreground and a man dressed in white carrying a large crucifix in front of an open grave. For 10 points name this French Realist artist of *The Stone Breakers* and *A Burial at Ornans*.**

ANSWER: Gustave Courbet [accept Jean Désiré Gustave Courbet] <Chandler/Ed. TH>

2. **A memoir by Julia Phillips documenting the debauchery of the New Hollywood scene in the 1970s and 80s is named for never being able to do *this* again in a particular place. The most prominent Eric Dolphy album containing his classic composition "Hat and Beard" is named for performing this action. The band Steely Dan got their name from an object that originally appeared in a novel with this noun in its title. That novel partly titled by this noun contains bizarre creatures called (\*) mugwumps and features alien giant black centipedes as a major motif. In that novel, the junkie William Lee visits Tangiers and the bizarre Interzone. For 10 points, name this meal that in a William S. Burroughs novel is "Naked."**

ANSWER: Lunch [accept *You'll Never Eat Lunch in the Town Again* or *Out to Lunch or Naked Lunch*] <Taylor/Ed. TH>

3. **Piperonyl butoxide is usually combined with these chemicals to prevent metabolism by cytochrome P450 enzymes. One of these chemicals inhibits complex I ("one") by binding to the ubiquinone binding site. Research done by biodynamicists Ehrenfried Pfeiffer, Marjorie Spock, and Mary Richards contributed to a book that critiques the use of these compounds. Knockdown resistance, which has been shown to decrease (\*) sodium ion sensitivity, reduces the effectiveness of one of these compounds. The widespread use of one of these chemicals was the target of a work that contains the chapter "A Fable for Tomorrow"; that one of these chemicals inhibits calcium ATPase, which may be the reason that that one of these chemicals causes thinned eggshells. For 10 points, name these chemicals criticized by Rachel Carson in *Silent Spring* which include DDT.**

ANSWER: pesticides [accept insecticides; accept pyrethroids; accept pyrethrins; accept rotenone; accept DDT before mentioned] <Jonathen/Ed. JS>

4. **Heber Kimball claimed that this group became disaffected with its founder after the dissolution of the Kirtland Safety Society anti-bank, prompting members of this group to move to Far West, Missouri. The Supreme Court case *Reynolds v. United States* caused many people in this group who accepted a certain practice to go into hiding, and this group's Second Manifesto in 1904 later called for the (\*) expulsion of those members. The Mountain Meadows Massacre took place after James Buchanan sent an army against these people in 1857. This group's Succession Crisis of 1844 was solved by its Quorum of the Twelve Apostles, which was to replace a founder who prophesied the founding of Zion. For 10 points, name this religious branch founded by Joseph Smith.**

ANSWER: Mormons [accept Latter Day Saint movement or LDS] <Brad/Ed. PT>

5. In the film *Synecdoche, New York*, Caden receives a MacArthur fellowship after directing this play, and in a 2016 Asghar Farhadi film this play is performed by the central couple in Tehran. A character in this play states “Nothing’s planted. I haven’t got a thing in the ground” while obsessing over the garden in his backyard during a meal at Frank’s Chop House. Stage directions in this play call for a (\*) flute to play in any scene where nostalgia is evoked. The title character’s father had found success in the Alaskan wilderness while his brother Ben had made a fortune in Africa, both of which are contrasted with the main character’s unsuccessful life in Brooklyn. Featuring the characters Biff, Happy, and Willy, for 10 points, name this play about the Loman family, a work by Arthur Miller.

ANSWER: Death of a Salesman <Taylor/Ed. AS>

6. The intent of a design pattern named for one of these structures is to decouple an abstraction from its implementation, and, unlike the adapter pattern, is usually designed up front. Some of these structures that stabilize protein structures are usually formed with glutamic acid or aspartic acid as the acid and arginine or lysine as the base. It’s not hills, but Lutz and Reid observed swarms of the ant species *E. hamatum* exhibiting collective intelligence by building living types of these structures. The (\*) catenary formed by free cables is deformed into a parabola when the cables are attached to the deck of one kind of this structure. Another type of these structures is used to connect the half-cells of an electrochemical cell. For 10 points, name these structures that come in cantilever, arch, and suspension types.

ANSWER: bridges [accept salt bridges; accept suspension bridges] <Jonathen/Ed. JS>

7. This type of animal was used in an experiment that *contradicted* Thorndike’s law of effect and supported the experimenter’s “chain of responses” hypothesis. Harvey Carr assisted in an experiment in which these animals learned after making an onomatopoeic sound in the “Kerplunk” experiment. Edward Tolman’s experiments on these animals led to his theory of cognitive maps. Rosalie Raynor assisted in an experiment in which an (\*) infant was conditioned to fear one of these animals, which then generalized to other furry things. That experiment was John B. Watson’s Little Albert experiment. For 10 points, what type of animal is often forced to solve mazes to obtain food in psychological experiments, and are generally larger than mice?

ANSWER: rats [do not accept or prompt on “mouse” or “mice”] <Alex/Ed. AS>

8. Rita Zucca and Mildred Gillars were two notable users of this medium in the 1940s. Iva Toguri D’Aquino was tried for treason but ultimately exonerated due to her suspected use of this medium. William Joyce, also known as Lord Haw Haw, was executed for treason for his use of this medium. Father (\*) Coughlin achieved a large following through the use of this medium. An organization formerly headquartered in Munich used this medium to spread anti-communist propaganda during the Cold War and was called *this medium* Free Europe. For 10 points, Franklin Delano Roosevelt’s fireside chats were broadcast in what medium that dominated in the United States before the advent of television?

ANSWER: radio broadcasting [prompt on broadcasting; prompt on propaganda] <Taylor/Ed. PT>

9. According to Crooks’ fluctuation theorem, the ratio of the forward and reverse probability distributions is equal to this function of the entropy divided by Boltzmann’s constant. The *i*-th term in the definition of the discrete partition function is equal to this function applied to the product of negative beta and  $E_{-i}$ . A plane wave can be written as this function of *i* times the sum of  $k \cdot r$ ,  $\omega t$ , and a phase constant. This function which requires (\*) dimensionless arguments is applied to the quotient of negative time over RC in the equation for voltage when discharging a capacitor. The Gaussian distribution function is a constant times this function applied to a quadratic term. Radioactive decay and continuously compounded interest are modeled by this function that is its own derivative. For 10 points, name this function whose inverse is the natural logarithm.

ANSWER: exponential function [accept e to the x; accept x to the y; accept any letter raised to another letter’s power] <Jonathen/Ed. JS>

10. In one story with this color in the title, a drummer talks incessantly at the Weary Gentleman Saloon. Another story with this color in the title begins with the narrator noting how uncommon it is for people of her sort to “secure ancestral halls for the summer.” In a story with this color in the title, (\*) Scratchy Wilson chooses not to harass the sheriff Jack Potter when he sees that he has been married. The narrator of a story partially titled for this color undergoes a “rest cure” and sees creeping figures along the title entity. For 10 points, Charlotte Perkins Gilman wrote a short story about what color of wallpaper?

ANSWER: yellow [accept “The Bride Comes to Yellow Sky”; accept “The Yellow Wallpaper”] <Alex/Ed. AS>

11. A Lane Kirkland led security bureau assisted an organization in this country by providing printing presses and radios while a former leader of this nation warned in 2015 that allowing Middle Eastern refugees into Europe would lead to widespread beheadings. A precursor to an organization in this country known as the “Inter-Enterprise Strike Committee” put forward the “21 Postulates” which demanded an increase in the pay of each worker by 2,000 zloty and to release political prisoners like Edmund (\*) Zadrozinski. A movement in this nation began after Anna Walentynowicz lost her job after being exposed as editor of the underground newspaper *Robotnik Wybrzeze*, leading to members of that union striking at the Gdansk Shipyards. For 10 points, name this Eastern bloc nation which was where the trade union Solidarity was founded future president Lech Walesa.

ANSWER: Poland <Peter/Ed. PT>

12. One work of this type declares that a certain type of home can “change with a new owner into a doll's house.” It's not a couplet, but a work inspired by the structure of this poetic form describes the “apparition of these faces in the crowd” and is Ezra Pound's “In a Station of the Metro.” Another work in this poetic form opens by noting that “The month and days are the travelers of eternity.” Traditionally, this form requires a reference to the (\*) seasons, a cutting word, and 17 morae (mor-ah-eh). In addition to the poems contained in “Narrow Road to the Deep North,” perhaps the most famous poem of this type is about a frog jumping into a pond, and ends with “the sound of water.” For ten points, Basho is known for what form of Japanese poetry with syllables numbering 5-7-5?

Answer: haiku [prompt on poem] <Katia/Ed. AS>

13. Pixinguinha is the most notable composer of this country's *choro* folk music, which often is played with seven string guitars, clarinets, flutes, and *cavaquinhos*. The triangle, bass drum and accordion are played in a dance music style from this country's northeast called *forro*. The popular music of this country is usually abbreviated (\*) MPB and that style's internationally known stars include Gal Costa, Jorge Ben Jor, and Chico Buarque. João Gilberto was a singer from this country whose recording of “The Girl from Ipanema” kicked off this country's bossa nova style. The classical composer Heitor Villa-Lobos is from, for 10 points, what South American nation which features samba music in its celebrations of carnival.

ANSWER: Brazil [accept Brasil] <Taylor>

14. The philanthropist Jonas Hanway wrote a 400 page invective against this thing, calling it an “idle custom” and an “absurd expense.” Erika Rappaport's recent book *A Thirst for Empire* is a history of this commodity, which the Scotsman James Taylor introduced to Ceylon. In the 1820s, the British discovered this commodity growing naturally in (\*) Assam, leading to its widespread cultivation there. The Tang writer Lu Yu wrote a “classic” on this commodity, which has been used in China since at least the Shang Dynasty. In a 1773 event named after this commodity several members of the Sons of Liberty dressed as Native Americans while destroying a shipment of this commodity. For 10 points, name this substance, excessive taxes on which led to the dumping crates of it into Boston Harbor in a “party” named for it.

ANSWER: tea [accept tea plants or tea leaves] <Taylor/Ed. PT>

15. According to the Neoplatonic philosopher Proclus, this substance is characterized by being blunt, dense, and mobile. In *Timaeus*, Plato explains that this substance is associated with the icosahedron since the shape is made up of twenty equilateral triangles. Hippocrates associated this substance with the bodily humor he called phlegm. A maxim attributed to (\*) Heraclitus states that one cannot step in a type of this substance more than once and without it changing. Thales of Miletus held that this substance was the primary component of all matter. For 10 points, the classical elements included earth, fire, air, and what other substance?

ANSWER: water [accept rivers] <Alex/Ed. AS>

16. A gamer from this nation goes by the alias "Ex6Tenz" and is arguably the best *Counter Strike: Global Offensive* player in the world. Under Dave Goffin and Steve Garcis, this nation finished 2nd in a thrilling 5 match final against France in the 2017 Davis Cup. An athlete from this nation is currently the top goal scorer for (\*) Manchester United after being acquired from Everton in the offseason. This nation was ranked #1 in the FIFA World Rankings from November 2015 to March 2016 and eliminated the US in the quarterfinals of the 2014 World Cup. Axel Witsel and Eden Hazard are players that represent this nation. For 10 points, identify this European nation which is represented by soccer superstar Romelu Lukaku whose matches against the Dutch national team are called Low Country derbies.

ANSWER: Kingdom of Belgium <Zach/Ed. TH>

17. The South Indian dharmic belief system Ayyavazhi is usually symbolized by one of these objects. One of these objects represents the earth in the traditional aarti ceremony and is used alongside two fans, some water and a lamp. The goddess Lakshmi is usually depicted standing on and holding several of these objects. The term puja is usually translated as an "act" involving these objects. A (\*) sutra named for one of these objects is the founding text of the Tendai and Nichiren schools of Buddhism and contains what are considered the final teachings of the Buddha. A sitting asana position named for one of these objects involves crossing one's legs and placing the feet on one's opposing thigh. The padma is an example of, for 10 points, what objects than include the lotus?

ANSWER: flowers [accept lotus or padma until mentioned; accept any other specific kind of flower; prompt on plant] <Taylor/Ed. TH>

18. A Tigran Mansurian piece in this genre is dedicated to victims of the Armenian Genocide and uses elements of Armenian folk music in its composition. Organ and trombone dominate the *Tuba mirum* movement of Saint-Saens' piece in this genre. Giuseppe Verdi's best known non-opera piece is his piece in this genre composed in honor of Alessandro Manzoni. Wilfred Owen poems were used as part of the text to a piece of this genre by Benjamin Britten, named for (\*) "War." Franz Sussmayr completed a piece in this genre in D minor after the death of its primary composer in 1791. These pieces usually contain movements like *Agnus Dei* and *Dies Irae*. Faure and Mozart both composed notable examples of, for 10 points, what pieces often called "Masses for the Dead?"

ANSWER: Requiem Mass [accept Mass for the Dead until mentioned; prompt on mass] <Taylor/Ed. TH>

19. Tracy Chevalier edited a 2016 collection of short stories inspired by and named for the first line of the last chapter of this novel. In this novel, Eliza breaks up her sister Georgiana's marriage to Lord Vere out of jealousy. They break off contact altogether after the death of their mother, Mrs. Reed, who abused the protagonist before sending her to (\*) Lowood Academy in this novel. While there the protagonist of this novel befriends Helen Burns, who dies in her arms. Once she graduates, the protagonist of this novel becomes a governess and hopes to marry her employer before running away to live with some distant cousins. The protagonist marries Mr. Rochester, the former husband of the madwoman Bertha, in for 10 points, what novel by Charlotte Bronte?

ANSWER: Jane Eyre <Katia/Ed. AS>

20. **One mechanism of this reaction type which proceeds through a carbanion intermediate occurs because of a poor leaving group; the dehydration step of aldol condensation proceeds through that mechanism of this reaction type. Heating an N-oxide causes it to undergo this reaction type in a *syn* fashion, producing an alkene. Because of a bulky trimethylamine leaving group, the least substituted product is formed in a reaction of this type named for (\*) Hoffman. One mechanism for this reaction type requires the leaving groups to be antiperiplanar, and that mechanism competes with the SN2 mechanism if the strong base used is also a good nucleophile. This type of reaction, the mechanistic reverse of addition reactions, occurs when two substituents are removed from a molecule, forming a new pi bond. For 10 points, name this type of reaction that comes in E1cb, E1, and E2 variants.**

ANSWER: **elimination** [accept **E1cb** and **E2** before mentioned] <Jonathen/Ed. JS>

**Bonuses:**

1. The first piece in this collection is in F major and D minor, and it may be the first piece of English music to feature the French horn. For 10 points:

[10] Name this set of three orchestral suites commissioned for King George I. The outdoors premiere of these works was repeated several decades later for the same composer's *Music for the Royal Fireworks*.

ANSWER: **Water Music**

[10] *Water Music* was written by this German-English baroque composer who also wrote the *Messiah* oratorio, which features the Hallelujah chorus.

ANSWER: George Frideric **Handel**

[10] Handel's anthem *Zadok the Priest* was commissioned for this kind of event involving George II. It has subsequently been used in all of the instances of these events in England to the present day.

ANSWER: **coronation** of a monarch <Taylor/Ed. TH>

2. James Rothman, Randy Schekman, and Thomas Südhof shared a Nobel prize for their work on these cellular structures. For 10 points each:

[10] Name these cellular structures whose fusion is mediated by SNAREs. These structures are used to transport molecules between locations within the cell, and these structures form around molecules taken in by endocytosis.

ANSWER: **vesicles** [do not accept or prompt on "vacuoles"]

[10] This organelle receives proteins from vesicles produced by the ER and modifies them before they are sent to their final destination. This organelle named for an Italian biologist has *cis* and *trans* networks.

ANSWER: **Golgi body**

[10] The Golgi body performs the O-linked form of this protein modification which attaches a sugar molecule to the oxygen atom of an amino acid. Almost half of the mass of the Env protein found in HIV consists of amino acids with the N-linked form of this modification.

ANSWER: **glycosylation** <Jonathen/Ed. JS>

3. One scene in this film depicts a performance artist acting like a monkey at a prestigious dinner party in which he slaps glasses out of people's hands and almost rapes a woman. For ten points each:

[10] Name this film, the 2017 *Palme d'Or* winner, that is titled after fictional artist and sociologist Lola Arias' new exhibit in the X-Royal museum. This Ruben Östlund-directed film opens with a shot of a homeless man as an off-screen solicitor says "Would you like to save a life today?."

ANSWER: **The Square**

[10] In *The Square*, one of these animals suddenly appears and starts coloring while Christian is sitting on Anne's bed. A funeral is being held for one of these animals when Joe arrives at Norma's mansion in *Sunset Boulevard*.

ANSWER: **chimpanzees** [prompt on **ape**; prompt on **monkey** I guess, even though that's biologically wrong]

[10] Östlund asked Terry Notary to star in *The Square* after seeing Terry's work as a movement coach for a recent entry in this film series. The 1968 film that started this series ends with a shot of the upper half of the Statue of Liberty washed up on a beach as Charlton Heston's character dispairs that he was on Earth the whole time.

ANSWER: **Planet of the Apes** <Jonathen/Ed. TH>

4. This work refers to Aristotle as "The Philosopher" and to Averroes as "The Commentator." For 10 points each:

[10] Name this work that presents the *quinquae viae*, which entails five proofs for the existence of God, beginning with a reformulation of Aristotle's unmoved mover argument.

ANSWER: **Summa Theologica** [or **Compendium of Theology**; prompt on **Summa**]

[10] *Summa Theologica* was written by this Doctor of the Church who was a major figure in the development of scholasticism.

ANSWER: St. Thomas **Aquinas**

[10] Aquinas published his commentaries on this other philosopher's *On the Trinity*. This man is best known for writing *The Consolation of Philosophy*.

ANSWER: **Boethius** [or Anicius Manlius Severinus **Boethius**] <Alex/Ed. AS>

5. This quantity is a function of current density and exchange current density in the Tafel equation. For 10 points each:

[10] Name this quantity, denoted  $\eta$ , that measures the difference between the optimal and observed galvanic potentials. One form of this quantity represents the voltage needed to achieve the activation energy of charge transfer reactions.

ANSWER: **overpotential** [accept activation **overpotential**]

[10] The Tafel equation relates overpotential to this function of the quotient of current density and exchange current density. This function is applied to the reaction quotient in the Nernst equation.

ANSWER: **natural logarithm** [accept **ln**; accept **log**; accept **common logarithm**; accept **base-10 logarithm**]

[10] The Nernst equation can be derived by looking at how the change in this quantity differs in non-standard conditions. This quantity is negative in spontaneous processes.

ANSWER: **Gibbs free energy** [accept **G**; accept **delta-G**] <Jonathen/Ed. JS>

6. Thomas Bulfinch produced a book on this subject that was one of the most popular book in the 19th century United States. For 10 points each:

[10] Identify this general subject, which was also popularly written about by Edith Hamilton in her book subtitled *Timeless Tales of Gods and Heroes*.

ANSWER: **mythology** [accept Greek, Roman, or Norse **mythology**]

[10] Bulfinch's mythology devotes the last third of the book to tales of medieval romance, specifically myths about this real life ruler. The *Chanson de Geste* are a series of epic poems about this man's reign. One of his legendary knights was Roland.

ANSWER: **Charlemagne** [accept **Charles the Great**]

[10] This English mythographer, novelist, and poet also produced widely read retellings of myths in his *The Greek Myths*. He wrote a book-length essay examining poetic inspiration with regard to the classics in *The White Goddess*.

ANSWER: Robert **Graves** <Taylor/Ed. TH>

7. This explorer captured the settlement of San Jose de Oruña on Trinidad, where he questioned the governor Antonio de Berrio about the location of his goal. For 10 points each:

[10] Name this explorer who led a 1595 expedition up the Orinoco River. He did not find the fabled city he was looking for in the Guiana Highlands.

ANSWER: Sir Walter **Raleigh**

[10] Raleigh was looking for this fabled "city of gold" said to be somewhere in South America. The original legend concerning this place featured a chief called a zipa who would cover himself in gold dust and swim in a lake.

ANSWER: **El Dorado**

[10] Raleigh's El Dorado expedition is sometimes seen as a phase in the 1585 to 1604 war between these two European colonial powers.

ANSWER: **England** and **Spain** [accept the **Anglo-Spanish** War(s)] <Taylor/Ed. PT>

8. This cover art for this 2017 single features a nude male torso of a plastic doll. For 10 points:

[10] Name this pop song in which the singer states "I'm sorry that I missed your party / I wish I had a better excuse / like I had to trash a hotel lobby," but instead she was busy thinking about the title entities.

ANSWER: "**Boys**"

[10] "Boys" is a single by this British pop singer also known for her singles "Break the Rules" and "Boom Clap," and her albums *Number 1 Angel* and *Sucker*.

ANSWER: **Charli XCX** [accept **Charli Kiss Charli Kiss**]

[10] Another 2017 single by Charli is the song "Backseat," a collaboration with this Canadian pop singer behind "I Really Like You" and "Call Me Maybe."

ANSWER: Carly Rae **Jepsen** <Taylor/Ed. TH>

9. In this work, Saladin tries to trick the Jewish Melchizedek by asking him which of the three Abrahamic religions is correct. For 10 points each:

[10] Name this work which includes a tale where Giotto and Messer Forese da Rabatta make fun of each other after traveling to Northern Tuscany. This story collection inspired Chaucer's *The Canterbury Tales*.

ANSWER: **Decameron**

[10] *Decameron* is by this Italian man who penned *On Famous Women* and was a student of Petrarch.

ANSWER: Giovanni **Boccaccio**

[10] The last tale on the fifth day of the *Decameron* by Dionea is about Pietro de Vionciolo and his wife, which is actually taken from this Latin work from the second century AD. In this Apuleius novel, Socrates dies after his heart is replaced by a sponge.

ANSWER: *The **Golden Ass*** [Accept **Asinus Aureus**; or *The **Metamorphoses***] <Peter/Ed. AS>

10. Answer the following about the exciting field of Human-Computer Interaction, or HCI, for 10 points each:

[10] The Freeman Chain Code algorithm, which is used in HCI to perform gesture recognition, is a lossless kind of these algorithms. These algorithms generate data that uses fewer bits than the original data.

ANSWER: data **compression** [accept file **compression**; accept **source coding**; accept **bit-rate reduction**]

[10] Many HCI researchers work with "natural user interfaces" other than mouse and keyboard. One such interface is this technology, which uses resistive or capacitive materials to detect stuff like your finger or a cat's paw.

ANSWER: **touchscreens** [prompt on **screens**]

[10] One of the first dedicated HCI departments was at this university. HERB, who gained fame for his oreo separating video, was developed by the Robotics Institute of this university where a research group featuring Manuel Blum claims to have invented CAPTCHAs.

ANSWER: **Carnegie Mellon** University [or **CMU**] <Alex/Ed. JS>

11. This poet closed a poem describing a regretful old man with the lines "O body swayed to music, O brightening glance / How can we know the dancer from the dance?" For 10 points each:

[10] Name this poet who describes Caesar, Helen of Troy, and Michelangelo in the three stanzas of "Long-Legged Fly." This man's unrequited love for Maud Gonne inspired many of his poems.

ANSWER: William Butler **Yeats**

[10] Yeats' mystical beliefs about the cyclical nature of time influenced this bleak poem of his in which, "The best lack all conviction and the worst are filled with passionate intensity." It also features a "rough beast slouch[ing] towards Bethlehem to be born."

ANSWER: "**The Second Coming**"

[10] Yeats' beliefs about time also come through in this Greek myth-inspired poem of his, which closes "Did she put on his knowledge with his power / Before the indifferent beak could let her drop."

ANSWER: "**Leda and the Swan**" <Taylor/Ed. AS>

12. This painting may have used the same male model as its artists later *The Lute Player*. For 10 points each:

[10] Name this portrait in which the title Roman god is depicted as a dark haired young man grasping a goblet with a crown of leaves in his hair.

ANSWER: **Bacchus**

[10] That version of *Bacchus* is by this baroque master of *chiaroscuro*, which he employed in his *Death of the Virgin* and *Calling of Saint Matthew*.

ANSWER: **Caravaggio** [accept Michelangelo **Merisi**; accept Michele Angelo **Meriggi**]

[10] Bacchus also features along with his lover Ariadne and several animals in a painting by this earlier painter whose other mythological scenes include *Rape of Europa* and *Danae*.

ANSWER: **Titian** [Tiziano **Vecelli** or Tiziano **Vecellio**] <Taylor>



13. The Holy See kept this city's population in check from the Red Abbey, the only surviving Augustinian monastery in this city. For 10 points each:

[10] Name this port in Southwest Ireland where most wine was imported during the Viking occupation.

ANSWER: **Cork**

[10] Half of Cork's population was killed during this 1349 event where people got the namesake sickness after being bitten by fleas accidentally imported from Central Asia.

ANSWER: **Black Death** [or **Bubonic Plague**; prompt on plague]

[10] Installed shortly after the Black Death in a nearby namesake castle to Cork, this object, which smells of urine and vomit, supposedly grants better eloquence to people who kiss it. This object is also guarded 24 hours a day.

ANSWER: **Blarney Stone** <Zach/Ed. PT>

14. FEZANA, an organization dedicated to preserving this religion in the United States, claims that worldwide membership of this faith may be as low as 110,000, contra Pew's claim of around 200,000. For 10 points each:

[10] Name this monotheistic faith practiced the most widely in India, Iran, and the US. The Parsi community of this religion fled Iran between the 8th and 10th century for India after persecution.

ANSWER: **Zoroastrianism** [accept **Mazdayasna**]

[10] Zoroastrians the world over worship in these buildings. The heat and light of these buildings central entity is said to be a symbol of the divine.

ANSWER: **Fire Temples** [accept **dar-e mehr** or **agiyari**]

[10] A story about the Parsi Zoroastrians immigration from Persia to India features a Indian king sending the Parsi some of this substance, which the Parsi leader mixes with sugar to show how the Zoroastrians will enrich India.

ANSWER: **milk** <Taylor/Ed. TH>

15. Name some German language playwrights whose work had intersections with classical music, for 10 points each:

[10] Beethoven wrote the overture music to this man's play *Egmont*, though he is better known for a play in which an elderly scholar sells his soul to Mephistopheles, his two part play *Faust*.

ANSWER: Johann Wolfgang von **Goethe**

[10] This contemporary of Goethe wrote historically inspired plays like *Wallenstein's Camp* and *The Robbers*. Speaking of Beethoven, this guy also wrote the lyrics to *Ode to Joy*.

ANSWER: Friedrich **Schiller**

[10] Several French revolutionaries are guillotined in this other German's *Danton's Death*. He also wrote the play that was the basis for Alban Berg's opera *Wozzeck*.

ANSWER: Karl Georg **Büchner** <Taylor/Ed. AS>

16. This man was retroactively changed from leader of the Nogay to another certain ethnic group. For 10 points each:

[10] *The Epic* of this Kyrgyz hero is supposedly the longest epic story in the world at 500,000 lines and recounts how this man fought off the likes of the Oirat and Khitan people to establish an ethnically Kyrgyz Khanate.

ANSWER: **Manas**

[10] This city of Kyrgyzstan was once known as Frunze in the early Soviet era, named after an associate of Lenin during the October Revolution. This city off the northern fringes of Tian Shan mountain serves as the capital of Kyrgyzstan.

ANSWER: **Bishkek**

[10] During Kyrgyzstan's Tulip Revolution, the people kicked out President Askar Akayev, who had to first flee to this neighboring country. This country has been led since independence by Nursultan Nazarbayev and is centered on Astana.

ANSWER: **Kazakhstan** <Peter/Ed. PT>

17. The “frictional” type of this concept arises from workers transitioning between jobs, while the “cyclical” variety arises from lack of work opportunities. For 10 points each:

[10] Name this phenomenon in which people are unable to find jobs.

ANSWER: **unemployment**

[10] This economic law states that for every 1% increase in a country’s unemployment rate, there will be a 2% decrease in the country’s GDP.

ANSWER: **Okun’s** law

[10] Okun combined unemployment with inflation to create this “index” whose name suggests it provides a measure of how unhappy the people of a country are.

ANSWER: **misery** index <Alex/Ed. AS>

18. One form of this kind of law for the stress-energy tensor sets the divergence of the non-gravitational stress-energy tensor to zero. For ten points each:

[10] Name this kind of physical law which states that the total value of a property of an isolated system does not change over time. Poynting’s theorem is an example of this kind of law for the energy in the electromagnetic field.

ANSWER: **conservation** law

[10] The conservation of this quantity is why neutron stars rotate rapidly, and why ballet dancers spins faster when they pulls in their arms. The time derivative of this quantity equals the net torque.

ANSWER: **angular momentum** [prompt on momentum; do not accept or prompt on “linear momentum”]

[10] This theorem predicts the existence of a conservation law for every differentiable symmetry in a physical system. The Ward-Takahashi identity is the quantum analog of this theorem.

ANSWER: **Noether’s** (first) theorem <Leo/Ed. JS>

19. Name some things about books with seasons in their titles, for 10 points each:

[10] *The Autumn of the Patriarch* is a novel by this Colombian writer of *Leaf Storm* and *Love in the Time of Cholera*.

ANSWER: Gabriel **Garcia Marquez** [prompt on partial answer]

[10] In Shakespeare’s *A Winter’s Tale*, this queen’s daughter, Perdita, is unaware that she is of royal lineage. This wife of Leontes is turned to stone, and she dies from a broken heart after her son Mamillius dies of sickness.

ANSWER: **Hermione**

[10] *Spring Snow* is the first part of this author’s *Sea of Fertility* tetralogy. This author also wrote about Kochan, who attempts to fit into Imperial Japanese society, in *Confessions of a Mask*.

ANSWER: Yukio **Mishima** <Peter/Ed. AS>

20. Answer some things about America’s true favorite pastime, drinking, for 10 points each:

[10] Mafia boss Frank Costello claims that the patriarch of this family got his start bootlegging, though there’s little hard evidence for this. One of his sons, John, was president during the Cuban Missile Crisis and another, Teddy, was often our drunkest Senator.

ANSWER: **Kennedy**

[10] The Watermelon Army formed to protest a tax on this specific type of alcohol. It was synonymous with Doc Holliday and Ulysses S Grant, and the oldest American brand of this type of alcohol, Old Overholt, stayed viable through Prohibition by claiming that it was medicine.

ANSWER: **whiskey**

[10] This one time governor of Virginia was the only cabinet member to vote nay on using force against the Whiskey Rebellion. This first Attorney General leaked inner debates to French officials as Secretary of State, leading to his resignation.

ANSWER: Edmund **Randolph** <Brad/Ed. PT>