

1. Christodoulou showed that these do not increase the area of a black hole's event horizon. The Markov type of these must have detailed balance and Crook's fluctuation theorem applies to dynamics with the microscopic form. They have no dissipative effects and no temperature gradients transporting heat, therefore no spontaneous occurrence has this property. Carnot's theorem applies to engines that have the property of these processes. Each point in these processes are in continuous equilibrium. For 10 points, name these processes that permit returning the system to its original state after performing the process.

ANSWER: **reversible** process[accept word forms]

001-11-30-18102

2. This artist didn't create a picture of a pineapple until back in a New York studio despite being sent to Hawaii by Dole to paint one. Earlier, this artist simulated the glare from a camera in depicting *The Shelton with Sunspots*, and a similar effect was displayed in another depiction of a New York skyscraper, *Radiator Building--Night*. In a work typical of this artist's later style, red bars were added to the borders of a 1931 canvas in order to create a "Great American Painting." That painting was titled *Cow's Skull: Red, White and Blue*. She was depicted in several photographs by her husband, the artist of *The Steerage*, Alfred Stieglitz. For 10 points, name this New Mexico-based artist best known for her close-up paintings of flowers.

ANSWER: Georgia Totto **O'Keeffe**

094-11-30-18103

3. This character applies for a secretarial position with Mr. Greggsby. He injures Sir Mulberry Hawk, who later kills Lord Verisopht in a duel. He is helped many times by the clerk Newman Noggs, and is given a job in a counting house after befriending the kindly Cheeryble brothers. This character is given a job adapting French tragedies by Vincent Crummles, who runs an acting troupe. After a will hidden by Arthur Gride is discovered, this character marries Madeline Bray. His sister Kate is forced to work in a dressmaking shop while this character beats up Wackford Squeers and befriends Smike. For 10 points, name this character who clashes with his greedy uncle Ralph, the protagonist and title character of a Dickens novel.

ANSWER: Nicholas **Nickleby** [or **Nicholas** Nickleby]

015-11-30-18104

4. The author's meeting with Friedrich Majer is believed to have inspired this text, whose second book notes that the trajectory of a bullet and the inner workings of the brain are just as incomprehensible. One section of this text describes how individuation only gives rise to violence with the example of the bulldog ant, which attacks itself when cut in half. This work argues that every action comprises two aspects: an interior "blind striving," and an exterior objectification of that striving. Inspired by the Upanishads, this work rejects Kantian ethics for its dismissal of inner experiences, or what he referred to as the thing in itself. For 10 points, name this work by Arthur Schopenhauer.

ANSWER: *The **World as Will and Idea*** [or *The **World as Will and Representation***; or *The **World as Will and Presentation***; or *Die **Welt als Wille und Vortsetzung***]

064-11-30-18105

5. One chapter in this work discusses how its subjects respond to offers of cigarettes. Another chapter discusses Percival Lowell's study of a ritual called "hardening oneself" that involves bathing in freezing water. Those chapters are "Debtor to the Ages and the World" and "The Circle of Human Feelings." This work examines how the true feelings may not match the "façade," or public behavior, of the subjects, who are bound by a strong sense of duty called *giri*. This work also distinguishes Western "guilt culture" from Eastern "shame culture." For 10 points, name this study of the *Patterns of Japanese Culture* by Ruth Benedict.

ANSWER: *The Chrysanthemum and the Sword: Patterns of Japanese Culture*

079-11-30-18106

6. During this ruler's reign, forces under the Earl of Pembroke helped capture the city of San Quentin, contributing to the Treaty of Cateau-Cambresis. This monarch also lost Calais to a force under Francis, Duke of Guise. Legislation issued by this monarch included the First and Second Statute of Repeal. This leader suppressed Wyatt's Rebellion, and appointed Reginald Pole Archbishop of Canterbury. This monarch exiled Quaker founder George Fox, whose *Book of Martyrs* described the "Smithfield Fires" and the deaths of John Rogers, Thomas Cranmer, and others. She suffered two phantom pregnancies after her marriage to Prince Philip, the son of Charles V of Spain. For 10 points, name this Tudor monarch who briefly reinstated Catholicism before being succeeded by her sister Elizabeth I.

ANSWER: Mary I [or Mary Tudor; or Bloody Mary; prompt on Mary]

015-11-30-18107

7. Arginase, an enzyme used in the final step of the urea cycle, contains this metal. A certain compound containing both potassium and this metal is known as Condy's crystal and in organic chemistry is used as an alternative to osmium tetroxide in a basic solution to convert an alkene to a 1,2-diol, or as an alternative to chromium-based complexes to react an alcohol to a carboxylic acid. The oxygen evolving complex in chloroplasts has a center with calcium and this metal. In the body, this metal is paired with iron in a class of superoxide dismutase found in the mitochondria. This metal is central to the testing of alkenes in Baeyer's reagent, which involves the reduction of its +7 oxidation state to its +2 oxidation state. For 10 points, name this transition metal with chemical symbol Mn.

ANSWER: manganese

064-11-30-18108

8. This political party was opposed by the White Rose movement, a group of students who started a leaflet campaign against this party. Foundational texts for this political party included "The Myth of the 20th Century," written by the Estonian-born Alfred Rosenberg, who is considered the official philosopher of this political party. This political party's official song, "The Flag Up High," was also named in honor of Horst Wessel, a member of this party who died in a street fight with Communists. Members of this political party, such as Ernst Rohm, were killed during an internal purge called the Night of the Long Knives, and this party's leader wrote a book titled "My Struggle." For 10 points, name this political party whose salute was "Seig Heil!" and which was led by Adolf Hitler.

ANSWER: Nazi Party [or National Socialist German Worker's Party; or Nationalsozialistische Deutsche Arbeiterpart]

021-11-30-18109

9. This author wrote a novel about the chemist Prokop, who creates a dangerous explosive which he names Krakatit, after the volcano Krakatoa. His best known work concludes when Alquist declares Primus and Helena are the new Adam and Eve. He wrote an allegorical play that begins when a Tramp meets a Pedant chasing a butterfly. This author of *The Insect Play* also wrote a satirical science fiction novel describing the sex life of the newts, who are at war with humanity, while he wrote a play that begins when Helena Glory arrives at an island factory hoping to incite a rebellion against Harry Domin. For 10 points, name this Czech writer who coined the word "robot" in his play *R.U.R.*

ANSWER: Karel **Capek**

024-11-30-18110

10. This figure gathered a group of fifteen physicians for his mortally wounded friend to no effect, though a sixteenth got that friend briefly into fighting form after three days in a bath. This figure's son had three curses put on him: not being able to turn back, refuse a fight, or tell his name, which resulted in him killing his son. This man killed his friend Ferdiad and yielded to his foster-father Fergus in one battle. This hero of the *Tain* entered a berserker rage to fight off the forces of Queen Medb. For 10 points, name this hero who wielded the spear Gae Bulga during the Cattle Raid of Cooley in the Ulster Cycle.

ANSWER: **Cuchulainn** [or **Setanta**]

023-11-30-18111

11. Joseph Anderson's use of a fifty-strong battalion of armed guards allowed the Tredegar Iron Works to survive this event, which began shortly after Richard Ewell concentrated all available tobacco in certain buildings. News of it was leaked to the public early when caches of government documents were spotted in the streets in front of buildings. This event was ordered by men who immediately fled on the last available train to Danville, and it was followed a week later by the surrender at Appomatox. For 10 points, identify this attempt to avoid weapons and strategic buildings from falling into Union hands, which spread out of control and destroyed the capital of the Confederacy.

ANSWER: the **burning of Richmond** by retreating Confederate troops in 1865 [accept obvious equivalents; accept the **fall of Richmond** or the **capture of Richmond** or anything along those lines, too]

019-11-30-18112

12. This molecule is released by climbing fiber activation of Purkinje cells, and Huntington's disease is partially caused by the loss of cells that secrete this substance in the striatum. It is produced in a reaction that uses the enzymes GAD and pyridoxal phosphate, or vitamin B6 and its receptor works by widening a chloride channel, which in turn neutralizes norepinephrine. Benzodiazepenes and barbituates work by binding to receptors for this molecule, which is synthesized by decarboxylating glutamate. For 10 points, name this inhibitory mammalian neurotransmitter with a four letter abbreviation.

ANSWER: **GABA** [or **gamma-aminobutyric acid**]

064-11-30-18113

13. One section of this work explains that metaphors are used in poetry because representation is delightful to men. The author of this work spent seven long years creating it, after which he had a revelation so powerful that "all that [he had] written seem[ed] like straw." The purpose of this work is explained by a quote from Paul, who said "Like babes in Christ I fed you milk and not meat" in the Corinthians, which this work quotes several times after the repeated phrase "but on the contrary." Natural Law is described in the second portion of this work, in which a videtur, sed contra, and responsio comprise an article, many of which comprise a question, many of which comprise a major theological topic. Five arguments for the existence of God and many citations by Aristotle comprise, for 10 points, what major treatise of St. Thomas Aquinas?

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

020-11-30-18114

14. The amount of error created by applying this theorem to intermediate values is the subject of the Berry-Esseen theorem. The Cramer-Wold theorem can be used to generalize this in a multivariate manner. The de Moivre-Laplace theorem is a special case of this. One statement of this is named for Feller and Lindeberg and this is true when Lyapunov's condition holds. A rule of thumb resulting from this is that one should have a minimum of 30 in a sample when the population is non-Gaussian. When sampling, this theorem implies a distribution with standard deviation σ over square root n . For 10 points, name this theorem that implies as sample sizes get larger, the distribution of sample means approaches a normal distribution.

ANSWER: **central limit** theorem

001-11-30-18115

15. The leader of this group was arrested at No 17 Fisherman's Terrace. Another member of this group ordered the printing of an article about education reform after the death of one of their opponents, attempting to distract the populace. One of their opponents was denounced as a "capitalist roader". One member of this group published an article on the opera "Hai Rui Dismissed From Office." This group was captured after Hua Guofeng came into power. They were thought to be in power during the later stages of the Cultural Revolution. For 10 points, name this group of Chinese politicians led by Jiang Qing, or Madame Mao, named for the number of members in the group.

ANSWER: **Gang of Four**

048-11-30-18116

16. This role was originated by Célestine Galli-Marié, who allegedly fainted during one performance after having a premonition of its creator's death. This character sings the song "Les tringles des sistres se tintaient" with her friends Frasquita and Mercedes. She at first refuses to help the smugglers Dancaire and Remendado. This character sings of wanting to go to the inn of Lillias Pastia in the "Seguidilla Aria." She reveals that she has seen her own death while reading Tarot cards in the "Cards aria." This singer of the "Habanera" is stabbed by the soldier Don Jose as the crowd at an arena serenades Escamillo with the "Toreador Song." For 10 points, name this Spanish gypsy, the title character of Bizet's greatest opera.

ANSWER: **Carmen**

015-11-30-18117

17. The ceremonial single-piece, sashed dress worn by both genders in this country is known as the "del," and a traditional building here has a toono opening for smoke and is a rounded tent called a "ger." This country's highest point is Khuiten Peak, which is found in the western portion of this nation; its largest lake is Khovsgol Nuur. Another lake in this country, Uvs Nuur, lies near the city of Ulaangom. The sacred Tuul River flows through this nation's capital city, and the southern portion of this country contains parts of the Gobi Desert. For 10 points, name this Asian country that lies between Russia and China, with capital at Ulan Bator.

ANSWER: **Mongolia**

088-11-30-18118

18. In this novel, the central female character is forbidden from asking Oscar Wilde to sign her gazelle-skin glove. The central male character in this novel confesses to having an affair with Barbara Lynch. Another male character learns the violin from the German Lotario Thugut, which he attempts to use to win back his former lover. At the beginning of this work, we learn how one of the main characters fell to his death chasing his pet parrot. At the end of this work, Florentino Ariza and Fermina Daza make love aboard a river boat and convince the captain the wave a yellow flag at port. For 10 points, name this Gabriel Garcia Marquez novel that includes the character Juvenal Urbino, a doctor who hopes to eradicate the title disease.

ANSWER: **Love in the Time of Cholera** [or **El Amor en los Tiempos del Colera**]

064-11-30-18119

19. A tourist is scandalized to see this character sitting, un-chaperoned in the Doria Palace looking at Velasquez's portrait of Innocent X. This sister of Randolph earlier surprises her courier Eugenio when she goes for a boat ride with another man to the Chillon Castle in Vevey, Switzerland. This character from Schenectady, New York dismays Mrs. Walker and Mrs. Costello by carrying on a mysterious relationship with the Italian gentleman Giovanelli. This character dies after contracting malaria during a nighttime visit to the Colosseum with Giovanelli, which triggers Frederick Winterbourne's revelation that he loved her. For 10 points, name this title character of a novella by Henry James.

ANSWER: **Daisy** Miller [prompt Miller]

079-11-30-18120

20. Vincent D'Indy's *Symphony on a French Mountain Air* begins with a melody played by this instrument. This instrument plays a theme representing Central Asian merchants in Alexander Borodin's symphonic poem *In the Steppes of Central Asia*. The first bars of the love theme from Tchaikovsky's *Romeo and Juliet Fantasy Overture* are played by the violas and this instrument, which plays the melody of the "call to the dairy cows" in the William Tell Overture. It also plays the opening solo of the second movement Largo in Dvorak's New World Symphony. For 10 points, name this double-reed woodwind pitched in F, whose pitch is a perfect fifth lower than its closest relative, the oboe.

ANSWER: **English horn** [or **Cor anglais**]

004-11-30-18121

21. This man was forced to lower taxes in response to the Gin Riots. He managed to convince his hawkish monarch not to engage in the War of the Polish Succession, and put the Lord Chamberlain in charge of censoring the theatre with the Licensing Act. After the death of his ally Queen Caroline, this man experienced a decline in popularity caused by events like the Porteous Riots and the Cartagena Disaster, which occurred during the War of Jenkins Ear. Through his posts of First Lord of the Treasury and Chancellor of the Exchequer, he controlled affairs during the reigns of George I and George II. For 10 points, name this man often regarded as the first Prime Minister of England.

ANSWER: Robert **Walpole**

015-11-30-18122

22. Some of these make use of the Illinois Protocol, which is one of many algorithms that make use of the four words "modified," "shared," "exclusive" and "invalid" in order to prevent the "false sharing" problem inherent in these devices when trying to maintain their coherency. When implementing the write-back ones of these, an extra dirty bit is needed to maintain them. They can be direct mapped or set-associative at times, which allows them to hold more types of data. These devices exploit both temporal locality and spatial locality. For 10 points, identify these devices that store recently used bits of memory in order to speed up future access.

ANSWER: **caches**

033-11-30-18123

23. This author wrote a play in which Fred tells the protagonist "there is no truth; there's only whites and blacks" after killing a black man on a train. That play opens with the title character, Lizzie, being asked to tell the truth. In another play Olga Lorame encourages Hugo Barine to assassinate a communist leader named Hoederer. This author of *The Respectful Prostitute* and *Dirty Hands* wrote a play in which one character admits he ran a pacifist newspaper during World War II and another admits that she drowned her illegitimate baby in a lake. For 10 points, name this French author who wrote about Inez, Estelle and Garcin and included the line "Hell is other people" in his play *No Exit*.

ANSWER: Jean-Paul **Sartre**

094-11-30-18124

1. Daniel Dennett compared this man to a "trampoline: you jump on him and he springs back, presenting claims twice as trenchant and outrageous." For 10 points each:

[10] Name this Rutgers professor who championed a representational theory of mind in *The Language of Thought* and espoused functionalism as an alternative to behaviorism in *Psychological Explanation*.

ANSWER: Jerry **Fodor**

[10] In *The Mind Doesn't Work That Way*, Fodor refutes arguments that the complexity of the mind is a product of this basic evolutionary mechanism in which more advantageous traits are passed down to more offspring.

ANSWER: **natural selection**

[10] In *Psychosemantics* and the later *The Elm and the Expert*, Fodor tackles this thought experiment of Hillary Putnam, in which two worlds are exactly the same except for the chemical composition of water.

ANSWER: **Twin Earth** thought experiment

003-11-30-18201

2. The largest group to use this trail was the "great migration" led by Marcus Whitman in 1843. For 10 points each:

[10] Name this trail which began in Independence, Missouri and ended in its namesake state in the Pacific Northwest.

ANSWER: **Oregon** Trail

[10] One of the most recognizable landmarks of the Oregon Trail was this Morrill County, Nebraska rock formation, in which a pillar shaped rock juts out of hill.

ANSWER: **Chimney Rock**

[10] Much of the settlement done by survivors of the Oregon Trail was done along this tributary of the Columbia River which runs through Salem, Corvallis, and Eugene.

ANSWER: **Willamette** River

015-11-30-18202

3. This poem suggests answers like "the monstrous anger of the guns" and "the stuttering rifles' rapid rattle" for the opening question. For 10 points each:

[10] Name this poem, which asks "what passing-bells for those who die as cattle?"

ANSWER: "**Anthem for Doomed Youth**"

[10] "Anthem for Doomed Youth" and "Dulce et Decorum Est" are works written by this poet.

ANSWER: Wilfred Edward Salter **Owen**

[10] Owen was greatly influenced by Siegfried Sassoon, who wrote this novel about the childhood of George Sherston. Its sequels were titled *Memoirs of an Infantry Officer* and *Sherston's Progress*.

ANSWER: **Memoirs of a Fox-Hunting Man**

088-11-30-18203

4. He did a study involving a primate named Sultan that showed a flaw in Thorndike's puzzle box experiment. For 10 points each;

[10] Name this psychologist who wrote about discovering "insight learning" while examining apes living in the Canary Island Anthropoid Station on Tenerife in his book *The Mentality of Apes*.

ANSWER: Wolfgang **Kohler**

[10] Wolfgang Kohler was a leader of this psychological school whose practitioners included Kurt Lewin and Max Wertheimer. It believed that the psychological whole was greater than its component parts.

ANSWER: **Gestalt**

[10] This central law of Gestalt psychology states that the brain integrates diverse stimuli into its simplest logical whole. Its German name literally means "precision."

ANSWER: **pragnanz**

109-11-30-18204

5. This orchestral work opens with the strings playing descending minor thirds, the first of its four themes. For 10 points each:

[10] Name this symphonic scherzo, whose main theme comes to a brief, silent halt, is slowly taken up again by the bassoons, and becomes a musical round played increasingly wildly by the the whole orchestra until it is stopped by crashing brass chords playing the "spell" motif.

ANSWER: *The **Sorcerer's Apprentice*** [or *L'**Apprenti sorcier***]

[10] This French composer of the opera *Ariadne and Bluebeard* wrote *The Sorcerer's Apprentice*.

ANSWER: Paul **Dukas**

[10] *The Sorcerer's Apprentice* is based on a ballad written by this German poet. This author's works also inspired Schubert's "The Erl-King" and Jules Massenet's opera *Werther*.

ANSWER: Johann Wolfgang von **Goethe**

004-11-30-18205

6. This view is similar in form to Eutychianism. For 10 points each:

[10] Name this Christian viewpoint, which claims that Christ has only a single divine nature.

ANSWER: **monophysitism** [or word forms]

[10] At the other extreme, Nestorianism was declared a heresy in this 451 church council.

ANSWER: Council of **Chalcedon**

[10] The Council of Chalcedon also nullified this 449 council, which had lent support to the Egyptian position, and specifically condemned Eutyches.

ANSWER: Second Council of **Ephesus** [or Robber Synod of **Ephesus**]

064-11-30-18206

7. This process can be used to split water. For 10 points each:

[10] Name this use of electric current to drive an otherwise non-occurring reaction.

ANSWER: **electrolysis** [or **electrolytic** cell]

[10] When analyzing an electrolysis reaction, it is helpful to know this constant equal to the charge on a mole of electrons.

ANSWER: **Faraday's** constant

[10] This electrolytic cell is used to break apart molten sodium chloride in order to obtain sodium.

ANSWER: **Downs** cell

001-11-30-18207

8. The final stanza includes the image of "the gentle serpent, green in the mulberry bush" and a repeated refrain in this poem describes how "the leaves flying, plunge, and expire." For 10 points each:
[10] Name this Allen Tate poem that begins with the speaker describing the title location saying, "row after row with strict impunity the headstones yield their names to the element."

ANSWER: "**Ode to the Confederate Dead**"

[10] Allen Tate was a member of the Southern Agrarian movement along with this author, who wrote about Willie Stark in *All the King's Men*

ANSWER: Robert Penn **Warren**

[10] The members of the group described their literary views in this 1930 collection of essays.

ANSWER: **I'll Take My Stand**: *The South and the Agrarian Tradition*

064-11-30-18208

9. Sargon II's son Sennacherib deported many Jews from this empire. For 10 points each:

[10] Name this ancient empire of the Middle East that was eventually conquered by its southern neighbor, Babylonia.

ANSWER: **Assyrian** Empire

[10] This Assyrian capital city, found in modern-day Iraq, makes an appearance in the Book of Jonah.

ANSWER: **Ninevah**

[10] The third Assyrian king of this name conquered most of the known world in the 700s BC before his defeat by the Babylonians.

ANSWER: **Tiglath-Pileser**

079-11-30-18209

10. PLC cleaves PIP₂ to yield DAG and a variant of this molecule with three phosphates attached. For 10 points each:

[10] Name this compound that consists of cyclohexane with a hydroxyl attached to each carbon.

ANSWER: **inositol**

[10] Inositol trisphosphate triggers the release of an ion of this element from the sarcoplasmic reticulum. That ion plays a critical role in muscle contraction. Absorption of this element is aided by vitamin D.

ANSWER: **calcium**

[10] Another signal required for some forms of PKC is a phospholipid composed of this amino acid linked to two fatty acids via a phosphate. In chymotrypsin, a residue of this amino acid at position 195 plays a key part in catalysis, and like threonine and tyrosine it has a hydroxyl group in its side chain.

ANSWER: **serine**

001-11-30-18210

11. This religion is governed by the Universal House of Justice, which is located in Haifa, Israel. For 10 points each:

[10] Name this faith which holds that Bahauallah was a divine prophet who continued the tradition of Muhammad and Jesus.

ANSWER: **Baha'ism** [or the **Baha'i** Faith_]

[10] Instructions for the Universal House of Justice were laid out in this holy text by Bahauallah, which is known as "the Most Holy Book" and lays out the rules Baha'is should follow. Along with the Book of Certitude, it is the chief scripture of Baha'ism.

ANSWER: *Kitab-i-**Aqdas*** [or *The **Book of Laws***]

[10] Along with Muhammad and Bahauallah, the chief influence on Baha'ism is this earlier Persian leader who founded a namesake religion and took a name meaning "the Gate."

ANSWER: the **Bab** [or Siyyid Ali Muhammad **Shirazi**]

015-11-30-18211

12. These objects are given a finite state control to build a push-down automaton. For 10 points each:
[10] Identify this data structure that supports push back and pop off operations. They are first in last out, unlike a queue.

ANSWER: **stack**

[10] Stacks, unlike many other containers, don't usually come with one of these constructs that allows one to traverse all the elements of the container. The keyword "foreach" in languages like Python achieves this task.

ANSWER: **iterator**

[10] In C++, iterators are manipulated in a manner reminiscent of this technique where a memory address containing data type is manipulated using mathematical operators.

ANSWER: **pointer arithmetic**

033-11-30-18212

13. According to its namesake's equations, its partial derivative with respect to generalized momentum is equal to q dot. For 10 points each:

[10] Name this quantity equal to sum of the potential and kinetic energy of the system.

ANSWER: **Hamiltonian**

[10] Q dot refers to the derivative of the generalized coordinate with respect to this entity. Taking the derivative of velocity with respect to this yields acceleration.

ANSWER: **time**

[10] If the partial derivative of H with respect to coordinate q_n is 0 meaning p_n is constant, the coordinate q_n has this property. Groups of this type can be generated by a single element.

ANSWER: **cyclic** coordinate

001-11-30-18213

14. The victor at this battle used the reverse slope defense to successfully conceal his troop size from his opponent. For 10 points each:

[10] Name this battle, in which one regiment announced "The Guard dies, it does not surrender!" at La Haye Sainte.

ANSWER: Battle of **Waterloo**

[10] The Congress of Vienna, which followed the Battle of Waterloo, was chaired by this Austrian statesman who drew the spheres of influence in nineteenth-century Europe.

ANSWER: Klemens Wenzel von **Metternich**

[10] This aggressive Prussian commander, known as "Marshall Forward," was one of the two chief allied commanders at Waterloo along with Wellington, and had previously appeared at Leipzig.

ANSWER: Gebhard Leberecht von **Blucher**

081-11-30-18214

15. He included the popular aria "Una Furtiva Lagrima" in his opera about the peasant Nemorino's love for Adina. For 10 points each:

[10] Name this Italian composer of bel canto operas like *Lucrezia Borgia* and *The Elixir of Love*.

ANSWER: Gaetano **Donizetti**

[10] In this Donizetti opera based on a Walter scott novel, the love of the title character for Edgardo Ravenswood is hampered by a family feud.

ANSWER: **Lucia di Lammermoor**

[10] In this Donizetti opera, Doctor Malatesta conspires with Ernesto to make the elderly title character consent to the marriage of Norina.

ANSWER: **Don Pasquale**

015-11-30-18215

16. Name the following authors who wrote about the Holocaust, for 10 points each.

[10] This Italian Nobel Laureate described his year in a concentration camp in his memoir *If This Is a Man* published under the title *Survival in Auschwitz* in America. He also wrote the story collection *The Periodic Table*.

ANSWER: Primo **Levi**

[10] This cartoonist recorded his father's survival story in the graphic novel *Maus*, which represents the Jews as mice and the Nazis as cats.

ANSWER: Art **Spiegelman**

[10] This American wrote about a Holocaust survivor who lectures at Columbia in *Mr. Sammler's Planet*. He also wrote *Humboldt's Gift* and *The Adventures of Augie March*.

ANSWER: Saul **Bellow**

020-11-30-18216

17. This man resigned as Prime Minister in 1801, but returned three years later when the Napoleonic Wars threatened the United Kingdom. For 10 points each:

[10] Name this PM who ruled for almost twenty years after the American Revolution, and whose father was also a Prime Minister.

ANSWER: William **Pitt the Younger**

[10] Pitt is often favorably compared to this Prime Minister, who led Britain from 1770 to 1782 until he was removed for his failures in the Revolutionary War.

ANSWER: Frederick **North**

[10] Pitt had a conversation with this man under his namesake oak in 1788. This man headed the parliamentary campaign for the abolition of the slave trade.

ANSWER: William **Wilberforce**

015-11-30-18217

18. Name some Australian novelists, for 10 points each.

[10] This author rewrote *Pride and Prejudice* in *The Independence of Miss Mary Bennet*, and also wrote *The Thorn Birds*.

ANSWER: Colleen **McCullough**

[10] This author of *Oscar and Lucinda* has won three Miles Franklin Awards and two Booker Prizes.

ANSWER: Peter **Carey**

[10] Another Australian novelist is this author of *Riders in the Chariot* and *The Vivisector*.

ANSWER: Patrick **White**

024-11-30-18218

19. His secretary, Fawn Hall, was convicted of shredding documents to help his crimes, which, among other offenses, violated the Boland Amendment. For 10 points each:

[10] Name this former US Naval Academy boxing champion, who, four years after his conviction for obstructing Congress, failed to unseat Virginia Senator Chuck Robb.

ANSWER: Oliver Laurence **North**

[10] North's conviction was part of this larger scandal involving arms sales to Nicaraguan anti-government forces.

ANSWER: **Iran-Contra** affair

[10] Edmund Muskie and Brent Scowcroft were other members of this executive branch panel, led by a former Texas Senator, which criticized the Reagan administration in its 1986 report on Iran-Contra.

ANSWER: **Tower** Commission

019-11-30-18219

20. In this work, a man wearing a white turban is wielding a hammer and a stake. For 10 points each:
[10] Name this painting of a Biblical scene in which a lowly figure is saved from being martyred by St. Mark.

ANSWER: *The **Miracle of the Slave*** [or *The **Miracle of St. Mark***]

[10] This painter of *The Miracle of the Slave* also created *The Siege of Asola* and a version of the *Last Supper*.

ANSWER: **Tintoretto** [or Jacob **Comin**; or Jacopo **Robusti**]

[10] This Tintoretto painting shows Hera nursing Heracles as stars shoot into the sky.

ANSWER: *The **Origin of the Milky Way***

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21. Consider A , an n by n matrix. For 10 points each:

[10] This is the name given to the matrix formed such that the rows of A are the columns of this new matrix and vice versa.

ANSWER: **transpose**

[10] If A equals A transpose, then A is said to be this kind of matrix.

ANSWER: **symmetric**

[10] If each entry of A is equal to its conjugate transpose, A is this kind of matrix. Symmetric matrices are a special case of these matrices for real numbers.

ANSWER: **Hermitian** [or **self-adjoint**]

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